

THE RECLAMATION OF PITT MEADOWS

by

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Abstract

The various governments - colonial, provincial, and federal - which have been responsible for land development in the Lower Fraser Valley have all placed reliance on the initiative of individual settlers. However, in at least one area of the valley, at Pitt Meadows, reliance upon settlers to reclaim floodlands has not worked. Reclamation has not been carried out by settlers and would not have been completed without public subsidy and control.

Land reclamation was begun at Pitt Meadows by those who had acquired property there in the latter part of the nineteenth century. These landowners were not settlers but speculators, men who purchased land as an investment after making money in British Columbia in gold mining and associated commerce. Their efforts to develop this land began in 1891 with minimal government assistance, but they quickly fell into financial difficulties, and continued only with greater government support. Reclamation projects received increasing subsidies until they depended almost entirely on the government, which eventually assumed complete responsibility. In theory property owners were required to pay the costs of reclamation. In fact, the owners of the dyked lands could not bear these costs, and the pretense was preserved only by various financial manipulations which delayed repayments and forgave debts.

In 1948 a major flood seriously threatened reclaimed land in Pitt Meadows, and flooded other reclaimed areas of the Lower Fraser Valley. These lands lay across the major trans-Canada and trans-provincial transportation routes, and the floods that

inundated the reclaimed areas also broke these arteries. This event prompted both governments (federal and provincial) to give major importance to securing these regions from flood. All attachment to private enterprise in land reclamation was discarded, and the two governments began on their own initiative a massive program of upgrading reclamation works.

One notable exception to the development pattern of reclaiming land at Pitt Meadows is found in the history of Pitt Polder Limited. This Dutch company, the inspiration of one man, undertook to reclaim and settle the least-reclaimable part of Pitt Meadows, a region where previous dyking attempts had failed. Pitt Polder began its work in 1950, and while it did not achieve all its goals, it did succeed in reclaiming a large area without any government support.

In the largest part of Pitt Meadows very few settlers were established before the government had effectively taken over the work of reclamation. For twenty years after the dykes were first built almost all Pitt Meadows was owned by speculators. During this period government control over reclamation was effected in fact though not in form. After that period, from 1915 until today, settlers have acquired increasing proportions of the land, and the government has taken the initiative and the responsibility for reclamation. Early government policy assumed that Pitt Meadows lands could be developed by private capital, but adequate capital was not forthcoming. Only when government abandoned its reliance on rugged individualism and invested public funds did settlement advance.

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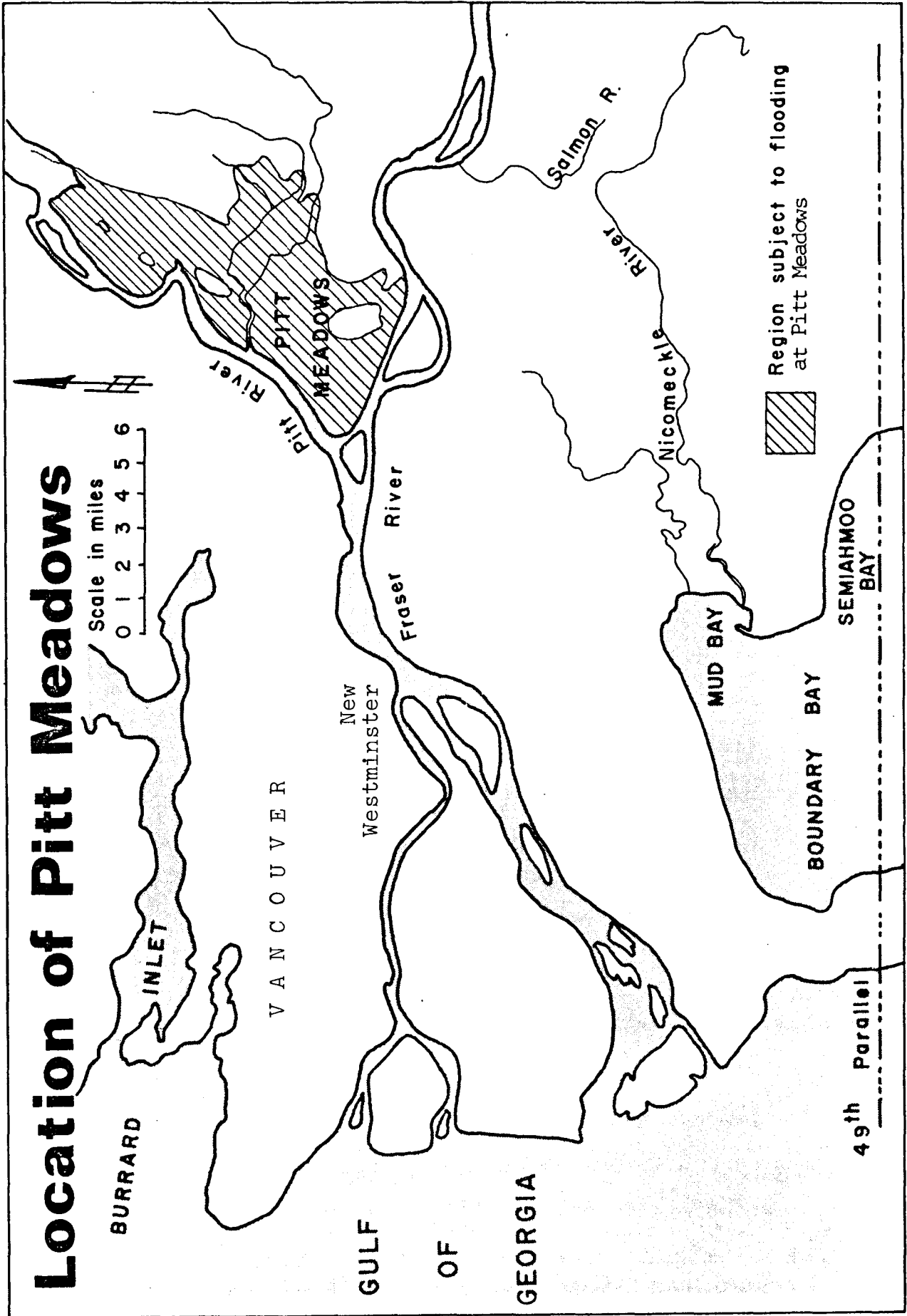
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Chapter 1

Introduction

Pitt Meadows is a low-lying region some ten miles in length and four miles in width near the mouth of the Fraser River in southwest British Columbia. Before this region was reclaimed it was marshy land covered with wild grasses. Each summer it would be inundated for a few weeks by the waters of the Fraser swollen by the melting snows of interior mountains. In a province with an abundant supply of farmland such a region would likely have been left unreclaimed. Even in British Columbia, a province where farmland is scarce, it would likely have been left unreclaimed if it had been remote from prospective urban centres. But Pitt Meadows was located in a province where farmland was scarce, and it was near to prospective urban centres. These two factors combined to interest speculators and government in its reclamation.

British Columbia is a province generally ill-suited to agriculture. Most of its terrain is mountainous and thickly forested. Only six per cent of its land is suitable for farming, and this six per cent suffers from severe disadvantages.¹ The principal region of grassland, the Cariboo, suffers from long cold winters. The fertile Okanagan valley suffers from drought. The alluvial grasslands of the Lower Fraser Valley, including Pitt Meadows, have a mild climate and abundant rainfall. These grasslands appealed to agricultural pioneers. Here settlers were spared the expense and labor of clearing timber, which would have been



their initial task if they had settled on neighboring hillsides. The grasses provided abundant pasture for their cattle, edible berries grew along the watercourses to enrich their diet, lumber grew on the hillsides for their buildings, and the river provided a transportation route to the first port and major city of the colony, New Westminster. From Pitt Meadows this city was only an hour away by canoe, and closer still by the stern wheelers which plied the river from the time of the gold rush in 1858. To many pioneers of British Columbia the land at Pitt Meadows appeared, at first glance, to be most suitable for agricultural settlement. Its great disadvantage was the annual flooding caused by the summer rising (or freshet) of the river.

The freshet begins in mid-May and subsides about a month later. It varies in height and duration according to the vagaries of the weather. If the winter snowfall is heavy on the mountain sources of the river, if the spring temperatures remain cool, and if the summer heat begins suddenly in early May, then the freshet will be high. If the winter snowfall is light, if the spring is warm, or if the summer is cool, then the freshet will be low. High or low, prior to reclamation schemes, the freshet flooded all the lowlands of the Fraser Valley to various depths according to season and location. The spreading lowlands of the delta would be covered only a foot or so, while in more confined regions of the valley, such as Pitt Meadows, flood depths averaged four feet, rather more in the lower northern part of the region.

2

To make Pitt Meadows useful for agriculture these annual floods had to be prevented. This could be achieved by the building of dykes. In addition to dykes, drainage works also had to be constructed, so that settlers and their cattle did not get mired in soggy soil caused by rainfall, seepage through dykes, or run-off from neighboring highland. Drainage works included undertiling the fields, digging ditches, and installing flood gates and pumps. These works, of both dyking and drainage, were together necessary to complete the work of reclamation.

Reclamation work, both at Pitt Meadows and throughout the Fraser Valley, was begun by private enterprise, and but for the uncertainties of climate, might have been completed in the same manner. But the weather of British Columbia is unpredictable, and climatic factors have combined to produce super-freshets in two years during the history of reclamation of the Fraser Valley, in 1894 and 1948. The first of these super-freshets destroyed dyking works throughout the valley, including Pitt Meadows, and made the task of reclamation too great to be completed by those who began them. This situation prompted the intervention of the provincial government, which progressively took over phases of reclamation programs as private enterprise showed its inability to complete what it had set out to do. The second super-freshet, in 1948, prompted the intervention of the federal government, which joined the province in financing and building reclamation works.

In 1950 a new venture in land reclamation was undertaken at Pitt Meadows. A Dutch company, most adequately financed, reclaimed that part of Pitt Meadows left unreclaimed by previous owners because of its extreme lowness and consequent costliness to dyke and drain. This project has a history of a different pattern from that of other reclamation works at Pitt Meadows, as it achieved its goals without government financing.

The history of land reclamation at Pitt Meadows begins thirty years before the building of dykes and ditches, with the beginning of land ownership in the area. The various land policies of three successive government authorities affected the nature of reclamation. Colonial, provincial, and dominion governments, while establishing land policies that encouraged settlement, permitted land to be held as speculation. Speculators, prior to dyking, came to own most of the land at Pitt Meadows, and it was they who began the program of reclamation. Pitt Meadows was first dyked, not by hardy pioneers seeking to secure their land from flood, but by speculators seeking to appreciate the value of their investment.

Crown land was first alienated at Pitt Meadows during the colonial period of British Columbia history, a period which began with the gold rush of 1858 and ended with the union of the colony with Canada in 1871. Early in this period the first governor, James Douglas, considered settling the fertile prairies of the Lower Fraser Valley, and for that purpose

ordered surveys of some of these areas, including part of Pitt Meadows. Douglas hoped that settlers would soon purchase the surveyed land, but few persons were interested. It was the desire for gold, not land, which brought pioneers to British Columbia. In 1860, the year following the first survey, Douglas sailed up the Pitt River and considered the prospects for settlement on the meadows that lay along the waterside. He wrote:

The banks of the Pitt River are exceedingly beautiful. Extensive meadows sweep gracefully from the very edge of the river towards the distant line of forest and mountain. The rich alluvial soil produces a thick growth of grass and scattered groups of willows. This fine district contains an area of 20,000 acres of good arable land ready for the immediate operation of the plough.

Many parts of it, however, are exposed to overflow through the periodical inundations of the Fraser, which commence about the first week of June and generally subside before the middle of July. Owing to this circumstance, the Pitt Meadows are not adapted to the raising of wheat or other cereals which require a whole season to mature, but may be turned to good account in growing hay and every kind of root crop, and may be used extensively for pasturing cattle and for the purposes of the dairy.³

At the time he wrote the only person who owned land at Pitt Meadows was his secretary - who had bought two hundred acres as a speculation. It was to be another thirty years before all land at Pitt Meadows was alienated from the Crown. During this period many people tried to settle on the meadows, but were driven off by the annual floods. The only place where settlement was successful was along the line where the floodland bordered the highland. Here settlers could build their house and barn above the floodline, and drive their cattle out of reach of the

floods. But apart from these marginal areas, across the level reaches of Pitt Meadows the floods prevented settlement. By the time the last of the Crown land in the area was sold, in 1890, most of the region had become owned by speculators. The governor's dream of the region becoming fertile farmland was not realized until "the periodical inundations of the Fraser" were prevented by the building of dykes.

Speculators are defined as landowners who bought their property solely for the purpose of holding it for an increase in its value. Speculators at Pitt Meadows in the pre-dyking period were persons whose income flowed from the principal economic activity of British Columbia, gold mining. They were not gold miners themselves, but persons who provided services to the gold mining community: hotel keepers, riverboat operators, suppliers of mining equipment, high government officials, physicians, lawyers and judges. They mostly lived in New Westminster, though some were from Victoria, and others (after 1886) were from Vancouver. They invested money in Pitt Meadows land as one might invest money in a bank, hoping to withdraw it some day plus a sizable interest. Those who held land during the dyke-building period (1893 - 1897) might be called developers rather than speculators, since they were engaged in an enterprise to secure their lands from flood. However, they are classified as speculators along with other landholders of other periods since their purpose was not to develop their land for farming but solely to increase its value. In the binary classification of landowners adopted in this report,

as either speculators or settlers, they must be classified as speculators.

Three principal indicators have been used in this essay to differentiate land speculators and settlers. If the landowner's address was not in Pitt Meadows, if his source of income was unrelated to his landholding, or if he lived in Pitt Meadows but owned more land than he could conceivably farm, then he has been held to be a speculator. In the latter case the speculator was also a settler, and an attempt has been made to separate the acreage he held for speculation from that which he held for settlement. The area commonly granted settlers for homesteads (160 acres) has been considered sufficient for settlement, and acreage a settler held surplus to this amount has been classified as speculation.

Various sources have been consulted to determine the addresses, sources of income, and acreage, of landowners. Initial ownership has been determined by consulting the Crown Grant for each piece of property. Copies of these are kept at the provincial Department of Lands in Victoria, and often have attached to them documents which indicate whether the land was acquired unconditionally or under conditions requiring settlement. Subsequent changes in the ownership of land are recorded at the Land Registry Office in New Westminster. Since the information in the files of this office is exact, it provides clues to tracing land ownership through a third, more useful, but less exact source. This is the record of land taxes. Tax records for Pitt Meadows are in three principal locations. Prior to 1874 no tax

records have been found, but from that date to 1896 Pitt Meadows was part of the Municipality of Maple Ridge, and tax records for this period are in the archives of that municipality. In 1896 Pitt Meadows seceded from Maple Ridge, and was unorganized territory until 1914. During this period taxes were collected by the provincial government, and these records are now stored in the provincial archives in Victoria. In 1914 Pitt Meadows became a municipality of its own, and its tax records since that time are kept in its municipal archives. The documentation of tax records prior to 1914 was often done in a slipshod manner: legal descriptions of property were sometimes inaccurate; names were wrongly spelt; addresses were seldom given. The attitude of the tax collector seems to have been to make as brief a notation as possible consistent with the efficient collection of taxes. If the tax records provided no address then other clues as to the landowner's status (as speculator or settler) have been sought. Newspapers sometimes helped. William Clarkson, who owned over eight hundred acres of Pitt Meadows towards the end of the last century, revealed the source of his income by advertising his New Westminster hotel in that city's newspaper, the Columbian. H.V. Edmunds, owner of a smaller acreage, advertised his real estate business in the same newspaper. Other sources of information on the status of landowners are the Williams' and Henderson's Directories for various years, Kerr's Biographical Dictionary of Well-known British Columbians (1890), and Gosnell's History of British Columbia (1906). Many of those who held

land for speculation at Pitt Meadows were important persons in the government, professions, or business of British Columbia. Their landholdings at Pitt Meadows were but part of their many holdings. Speculation was not a phenomenon confined to this region, but was typical of landholding in the colony and early province, where wealth gained from gold mining or services to miners was invested in land for the prospect of future gain.

There are no general studies of the history of land reclamation in British Columbia, nor are there any which parallel this one in examining a confined geographical area. General studies exist of the history of the Lower Fraser Valley. Gibbard has surveyed the history of the region from 1808 - 1885, and White the history of its eastern part from 1885 - 1937.⁴ Studies of land settlement in the colony and province have been made by Cail, Laing, and Mikkelsen.⁵ But the history of the reclamation of the flood plains of the Lower Fraser Valley remains an untouched subject. Plentiful materials for studies in this subject exist in the reports and files of the provincial Inspector of Dykes, in his office at New Westminster. This material was made available to the author through the kindness of the recently retired inspector, William F. Meighen, his assistant W.S. Jackson, and the newly appointed (1974) inspector K.J. Chisholm. Other material is available in the files of newspapers, particularly the Columbian, whose reports on the floods of 1894 and 1948 were especially useful. Information on the British Columbia Drainage and Dyking Company, which reclaimed land along the

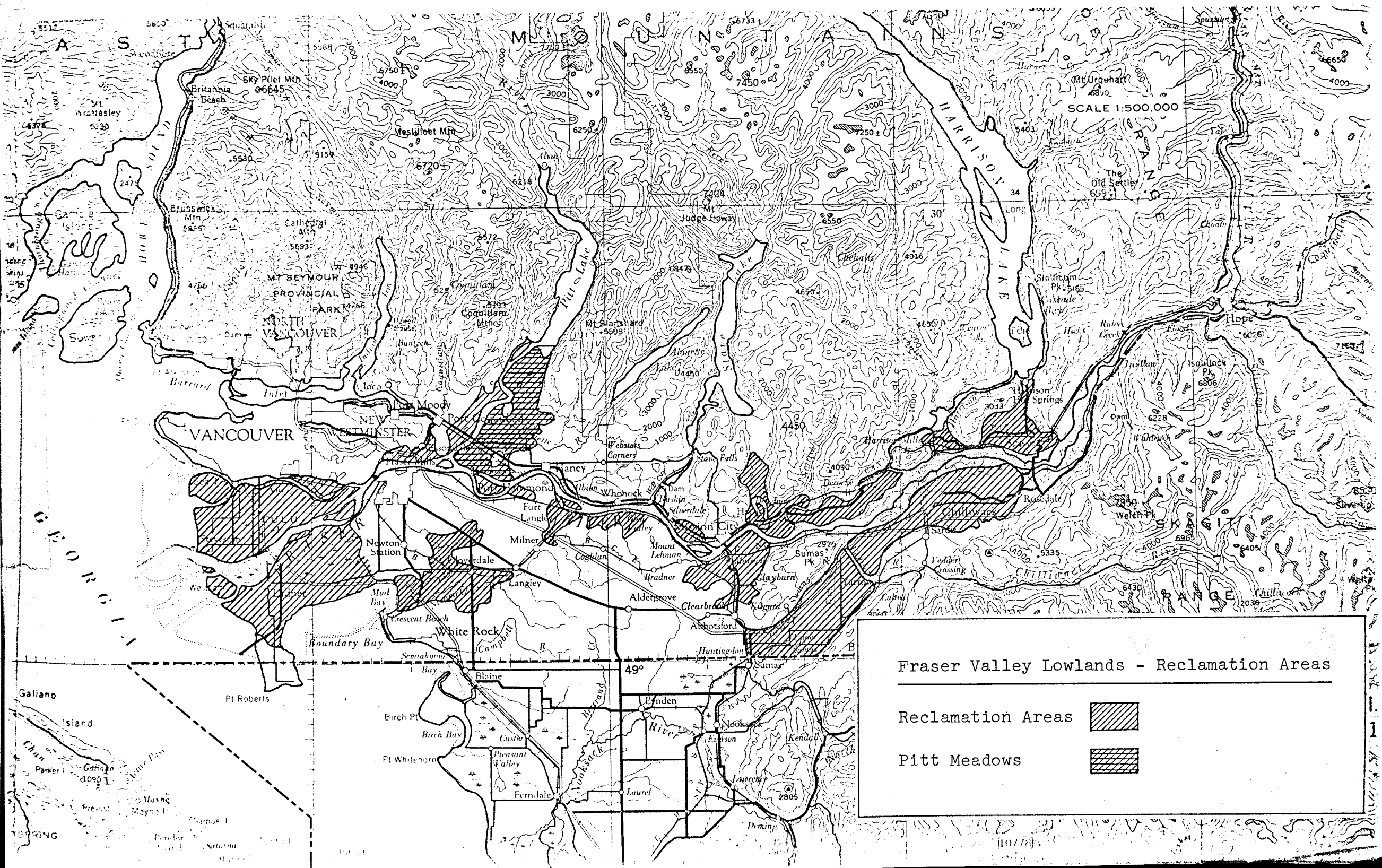
Alouette (formerly Lillooet) River at Pitt Meadows, is available in the papers of its president, David Oppenheimer (a former mayor of Vancouver) at the Vancouver City Archives. Information on the reclamation of the northern part of Pitt Meadows is scanty up until 1950, and until that date reclamation projects that were attempted in the region failed. Since 1950, however, this area has been vigorously reclaimed by a Dutch company, Pitt Polder Limited, and information on this company's program has been obtained directly from its managing director Dr. Jan Blom. Dr. Blom kindly read and corrected the chapter which described the reclamation activities of his company. The reports of various provincial-federal boards on rehabilitation for flood victims, dyking, and flood control, which followed the 1948 flood, have provided valuable information.⁶ Various provincial government departments, particularly the Water Resources Branch, the Department of Lands, and the British Columbia Land Commission, were also most helpful in supplying material on items of recent history.

Pitt Meadows is only one example of six or seven major areas and a host of minor ones, reclaimed along the banks of the Lower Fraser River. These regions are indicated on the map numbered 1-2, Reclamation Areas, Lower Fraser Valley. The history of each region is slightly different, but the basic pattern as recorded in the annual reports of the Inspector of Dykes is very similar. Reclamation began towards the end of the nineteenth century by private initiative, backed by government guaranteed loans. The problems of dyking proved to be

Map 1-2

Fraser Valley Lowlands - Reclamation Areas

(Fold-out map)



too much for the financial resources of private enterprise, and the various projects were taken over by the provincial government, which forgave the landowners who had begun the schemes much of their original cost. After the 1948 flood the federal government has shared these costs with the province. This pattern of reclamation has succeeded in reclaiming all the major prairie regions of the Fraser Valley for productive farm use today.

The Fraser Valley prairies are not alone in their receipt of government aid for reclamation. The other major farming valley in British Columbia, the Okanagan, has also received massive government support. In this valley the farmer's problem is the opposite to that in the Fraser Valley, he needs water brought onto, not kept off, his land. The various irrigation districts in the Okanagan were begun in the early years of the twentieth century by private development companies, which sold orchard plots in these districts to individual farmers. The owners of these orchards, like the landowners of the Fraser Valley, were financially unable to replace the reclamation works in their districts. Many irrigation works needed major repair or replacement towards the end of the First World War. Government loans helped to provide replacement flumes and pipes, and improve storage reservoirs, but the replacement costs of these capital items were too great for the landowners to bear. The province granted two moratoriums on debt payments during the 1920's, and during the Depression forgave substantial portions of debt.⁷ By 1946 the total indebtedness of irrigation

districts was \$1.5 million. Some \$1.5 million of government loans had been repaid, and \$3 million forgiven. Yet irrigation districts needed still further investments of government capital, and arrangements were made to provide it.⁹ The situation at Pitt Meadows, where reclamation schemes of private enterprise were rescued by the provincial government, can thus be seen as typical of reclamation districts, whether for drainage or irrigation, throughout the province. What is perhaps unique about Pitt Meadows is that so much of its land was owned for so long by speculators.

This study was made to trace the relationship between private enterprise and government in the reclamation of marginal land. Speculators began the work. Governments were drawn in unwillingly. But as the governments' involvement in reclamation increased, and as the value of reclamation projects came to be better appreciated, then government attitude (both federal and provincial) changed. At the same time the ownership of land passed from speculator to settler. Neither process was rapid, and it was not until fifty years after the first dykes were built at Pitt Meadows that government took over completely the capital costs of reclamation, and that the majority of the land came to be owned by settlers. The history of land reclamation at Pitt Meadows unfolded as part of this changing pattern of government attitude and private ownership.

Chapter 2

Land Alienation

Speculators in land played an important role in the early history of Pitt Meadows, as they did generally throughout British Columbia. The laws of the colony (from 1858 - 1871), the province (after 1871), and the dominion (after 1878) favored the settler over the speculator in the acquisition of Crown land. However, the economy of the colony (later the province) was not based on agriculture, and since laws of all jurisdictions which have controlled land sales in British Columbia have permitted speculation, land has been used as an investment by persons who have made money in enterprises removed from the use of the land they bought. Such speculators have not necessarily been parasites in the economy, forcing up land prices for their own benefit while contributing nothing to the productive use of the land they held. Many have pioneered in the development of their lands, by irrigation or dyking projects. Pitt Meadows, formerly a stretch of marshland subject to annual flooding, was purchased mainly by speculators in colonial and early provincial times. Since this land was useless until dyked, these speculators declared, by their investment, their intention to reclaim the land for agriculture.

The first land policies of British Columbia, those of Governor James Douglas, were intended to attract settlers to the colony. British Columbia had begun with a gold rush. Eager gold-seekers

had come from all over the world, but chiefly from California, in the summer of 1858. Most of them departed for San Francisco at the approach of winter, to flow back again the following spring. Plainly a colony could not be established with such a transient population. Douglas believed that "the durable prosperity and substantial wealth of states is ... derived from the soil. Without the farmer's aid British Columbia must remain forever a desert, to be drained of its wealth and dependent on other countries for its daily food."¹ He intended to attract "the farmer's aid" to the colony "by rendering the acquisition of land easy to the actual settler and to the actual settler only."² Yet despite Douglas' intentions and the land policies he initiated to carry them out, much of the land in the colony fell into the hands of speculators. At Pitt Meadows speculators acquired almost all the land.

Succeeding land policies in British Columbia, colonial, provincial, and dominion, also sought to promote settlement. Yet such policies had a very limited effect because all governments permitted unconditional purchase of surveyed lands. Such sales were a valuable source of revenue, and the implicit attitude of Douglas and of succeeding governments was that if someone had the money to buy land he should be allowed to do so. Also lands that were alienated from the Crown under the provisions of settlement laws could be sold subsequently to speculators. Such a type of transaction was particularly common at Pitt Meadows.

Pitt Meadows lands were alienated both by speculators and settlers. Most of the region, prior to dyking, was unsuitable for settlement owing to its swampy nature, and its susceptibility to annual flooding. Consequently many hopeful pioneers who obtained a 160-acre section of grassy meadows were only too happy to sell out to speculators as soon as they received title to their property. For speculators Pitt Meadows had an attraction as a long-term investment. It lay within easy reach by riverboat of the colony's first capital and major port. After British Columbia united with Canada Pitt Meadows was seen to lie across the route of the projected transcontinental railway, which was in fact built through the centre of the region in 1884. When this railway was extended to the site of Vancouver, and that city developed as Canada's west-coast port, Pitt Meadows was within easy reach of the new city by rail. It was a fertile region, and needed no difficult clearing to make it desirable agricultural land. With dyking and drainage it could become a most favored farming region and property held there could fetch a good price. Without dykes, of course, very few acres were useful for settlement. The main attraction of Pitt Meadows land was as a speculative property for wealthy merchants, professionals, and government officials from nearby urban centres. In the late nineteenth century Pitt Meadows became, in effect, a bank in which the wealthy invested their funds.

Survey-and-sell, Douglas' first land policy

To encourage settlement in the new colony of British Columbia Douglas developed a survey-and-sell policy. He planned to survey land suitable for settlement and sell it. This policy was put into effect by the first land act of British Columbia, proclaimed on February 14, 1859.³ The act proclaimed all land in the colony the property of the Crown and, except for land reserved for Indians or government purposes, available for purchase when surveyed. Surveyed land would be offered for sale first at public auction. Country lands (such as those at Pitt Meadows) would have an upset price of ten shillings (\$2.50) an acre, one half payable at the time of purchase, the balance within two years. Upon completion of payment the purchaser received a Crown Grant, which stated that the land he had bought was granted by Her Majesty Queen Victoria to him and his assignees forever. Land put up for sale at auction but not purchased could be bought privately for the upset price.

This act, by providing for the unconditional sale of Crown land, permitted speculation. Douglas was no doubt aware of this when he drew it up, and drafted it specifically to permit anyone to buy land. His administration did not only need settlers; it also needed money and was glad enough to get what money it could from land sales without questioning the motives of the purchaser. Apart from land sales, Douglas'

only sources of income were a ten percent customs duty, plus the sale of liquor and miners' licences. The latter were frequently avoided, and however rich miners became their wealth added little to the colonial treasury.⁴ Land sales were a badly needed extra source of income.

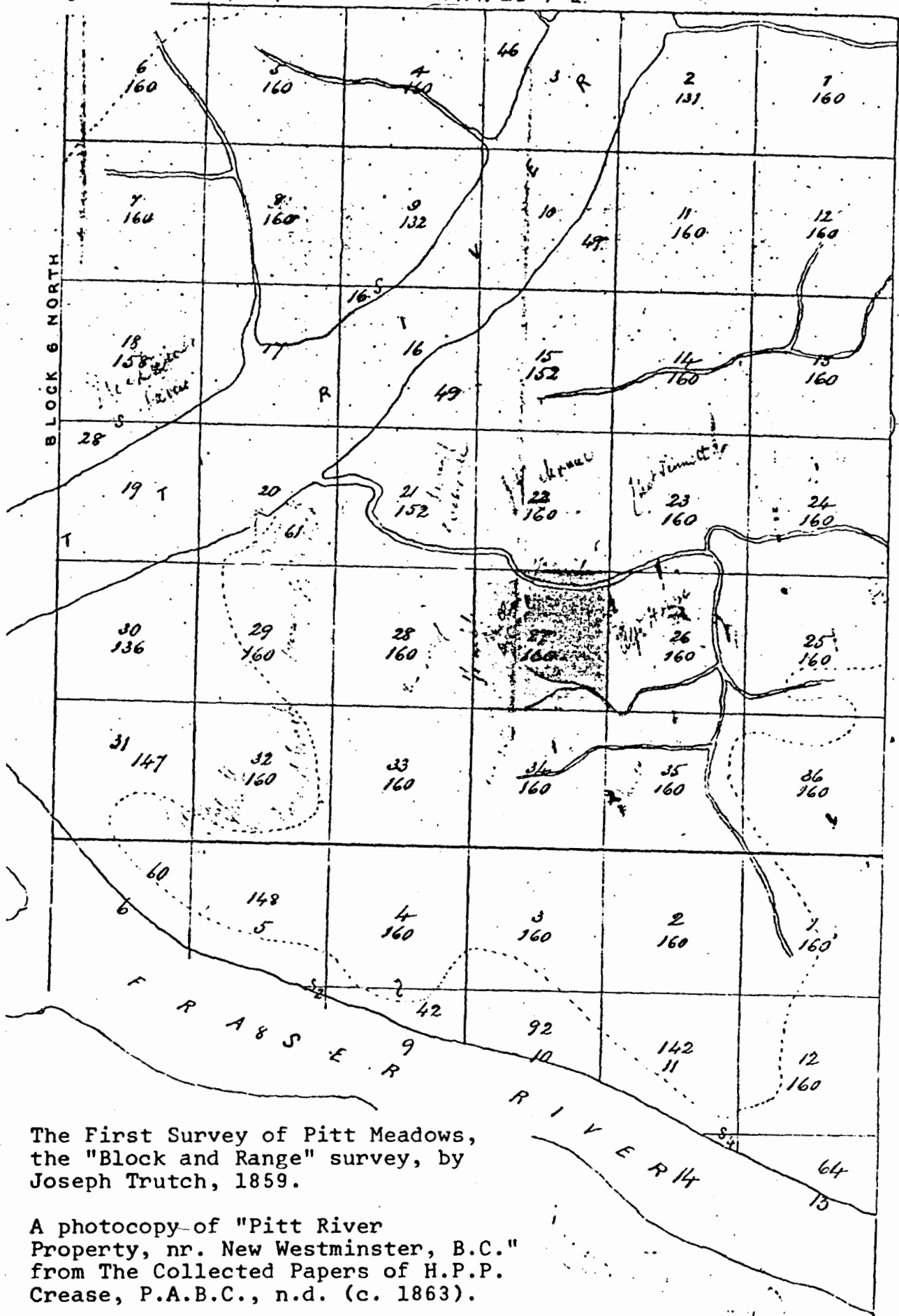
While Douglas hoped to raise as much money as possible from land sales, he also needed settlers. He was keenly aware that British Columbia was, to some extent, in competition for settlers with neighboring United States territory. If the colony wished to attract settlers north of the border her prices for land had to be competitive. This was also realized in London. In the summer of 1858 E.B. Lytton (British Secretary of State for the Colonies) wrote to Douglas: "You must, of course, be guided to some extent by the price at which land is selling in neighboring American territories."⁵ Douglas responded by setting the price at what he considered a reasonable level. In explaining to Lytton his setting of the price he wrote: "We feared that, by adopting a higher price for land, the sturdy yeoman expected this year from Canada, Australia, and other British colonies, might be driven in hundreds to seek homes in U.S. territories where it is the custom to make free grants of land."⁶ Douglas set the price to bring in the maximum amount to the treasury while still attracting settlers, whom he seems to have expected would be of sturdy British stock glad to shun the American free land and pay ten shillings an acre in British Columbia for the privilege of continuing to live under the Union Jack.

The land at Pitt Meadows, along with other prairie land in the Lower Fraser Valley, was considered suitable for settlement, and surveyed under government contract by Joseph Trutch in August and September of 1859.⁷ A map of Trutch's survey of Pitt Meadows follows, numbered 2-1. He surveyed by a system of blocks and ranges, a method common in Washington and Oregon where he had previously been employed. By this system land was surveyed in three mile ranges east and west of selected meridians and divided into blocks three miles square, each block containing thirty-six sections of 160 acres (or one-quarter square mile). Trutch used as his key meridian a line he surveyed north from a point where the international border (the forty-ninth parallel) crosses the Pacific coast. This line, which he called the Coast Meridian, cuts through Pitt Meadows near the confluence of the Pitt and Fraser Rivers. Trutch's contract required him to survey several ranges west, but only one range east, of the Coast Meridian. This easterly range extended over only a part of Pitt Meadows. Trutch's survey, in fact, covered only about one-third of the region.

A week after Trutch's survey was completed Douglas put the second step of his survey-and-sell policy to the test; he tried to sell the land that had been surveyed. All surveyed lands in the Lower Fraser Valley, including land at Pitt Meadows, was offered for sale at a land auction. This auction was held on October 5 and 6, 1859, and was a dismal failure. Only

Map 2-1

RANGE 1 E.



The First Survey of Pitt Meadows, the "Block and Range" survey, by Joseph Trutch, 1859.

A photocopy of "Pitt River Property, nr. New Westminster, B.C." from The Collected Papers of H.P.P. Crease, P.A.B.C., n.d. (c. 1863).

fourteen parcels of land were sold, only two in Pitt Meadows. Of these latter, one was bought by the governor himself, the other by his secretary, Charles Good.⁸ Douglas purchased the island that bears his name at the confluence of the Pitt and Fraser Rivers. Good bought two hundred and nine acres on the banks of the Pitt River and became the first landowner in Pitt Meadows proper.⁹ He bought his land for the upset price of ten shillings an acre, and made a downpayment of half that price. Since he continued to work for the colonial government and did not move out of Victoria to settle on his property his purchase must be considered a speculation.

The failure of the land sale seems to indicate that something was wrong with the land policy, but it is doubtful if, in this early period, any land policy could have sold land. Newcomers to the colony sought not land but gold. Land ownership, whether as farmer or speculator, did not appeal to those who came seeking the sudden wealth of a lucky gold strike. It was not until the excitement of the gold rush was past that some of the newcomers were prepared to seek other means of livelihood in the new land. Yet, despite the interest in gold, the failure of the land sale was blamed on the high price of land, especially when compared with the much lower prices available south of the border. A Victoria newspaper in January of 1860 made much of the lower American land prices in demanding a reduction in the British Columbia price, complaining that settlers "run the risk of having to pay twice the amount required by the American government for wild land."¹⁰ Begbie,

the colonial judge, also thought that the price of land was too high, and recommended to Douglas that he cut the price to four shillings an acre. "I feel that to lower our price below the U.S. price of five shillings (\$1.25) would tend to bring us permanent settlers."¹¹ In an attempt to sell more land Douglas, in January 1861, heeded his critics and dropped the price of land by more than half, to four shillings and two pence (\$1.00) an acre.¹² This drop in price did not succeed in selling off the rest of the surveyed land in the colony, though it did enable his secretary to receive a Crown Grant for his Pitt Meadows property for the price of his down-payment. Only one parcel of land, of one hundred and thirty-two acres, was sold at Pitt Meadows in 1861, and no more land was sold there until 1863.¹³ This situation was not typical of the province as a whole. The drop in land prices caused considerable activity in land sales elsewhere.¹⁴ The lack of interest in Pitt Meadows' land was likely due to its liability to flood.

Pre-emption, Douglas' Second Land Policy

The cost of road building impoverished the colonial treasury, and these costs were not met from income from land sales. A means was needed to encourage settlement in British Columbia before incurring the expense of surveys. Such a means was in effect in neighboring U.S. territories, and was named the pre-emptive system. Colonial newspapers in 1859 urged upon the Governor

the virtues of this system, which permitted settlers to squat on one hundred and sixty acres of unsurveyed vacant land after paying a small deposit on the purchase price.¹⁵ Full payment of \$1.25 an acre was not due until the land was surveyed.¹⁶ British Columbia, like the western United States, had vacant unsurveyed lands available for settlement. What had proved to be a satisfactory solution to settlement on these lands in the U.S. could prove to be satisfactory in British Columbia. In addition, the colony might lure settlers by the offer of land initially almost free, and defer the price of surveying until the countryside was settled.

Pre-emption appealed to Governor Douglas as an alternative to his survey-and-sell policy of procuring settlers. While settlers would not enrich the colonial treasury under the system, neither would the cost of surveying their land impoverish it. In the fall of 1859 he circularized local magistrates with details of proposed pre-emptive legislation, and instructed them to permit immigrants wishing to settle to take up lands under those terms. On January 4, 1860, these terms were formally proclaimed as the Pre-emption Act.¹⁷ This act provided for the settlement of unsurveyed vacant land in British Columbia under the following terms and conditions:

1. The pre-emptor had to be male, a British subject of alien prepared to take the oath of allegiance to the British Crown.
2. He could pre-empt 160 acres of vacant unsurveyed land by

recording his name with the nearest magistrate and paying an eight shilling (\$2) registration fee. He had, at the same time, to provide the magistrate with a description of the land he occupied together with a rough plan.

3. His claim was to be rectangular, the shortest side at least two-thirds as long as the longest.

4. Each corner was to be clearly marked with a post.

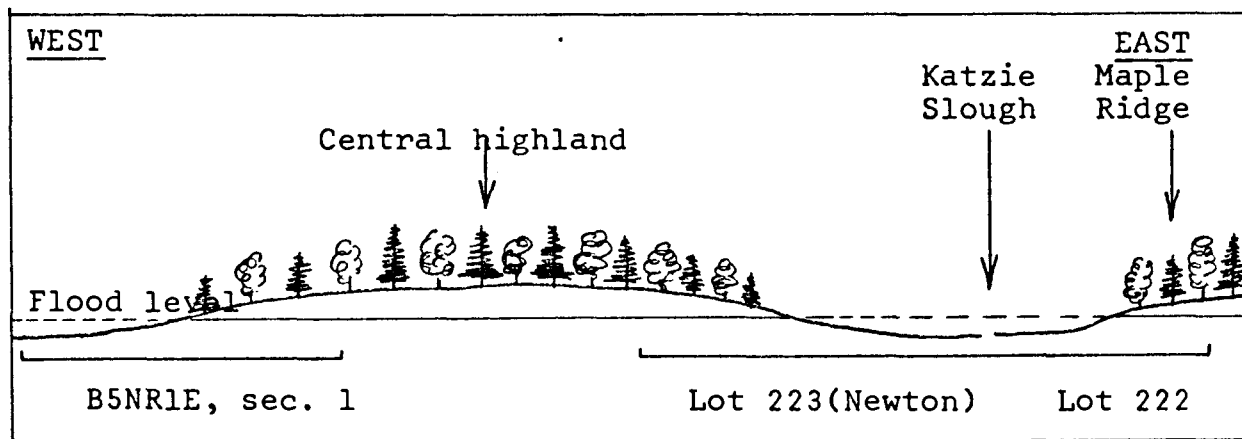
5. If the pre-emptor improved his land to the extent of ten shillings an acre he might then transfer his interest in the land. However, as proof of his improvement he must obtain a certificate of improvement from the local magistrate.

6. After survey, and after receiving a certificate of improvement, the pre-emptor could receive title upon payment of a fee, of not more than ten shillings an acre.

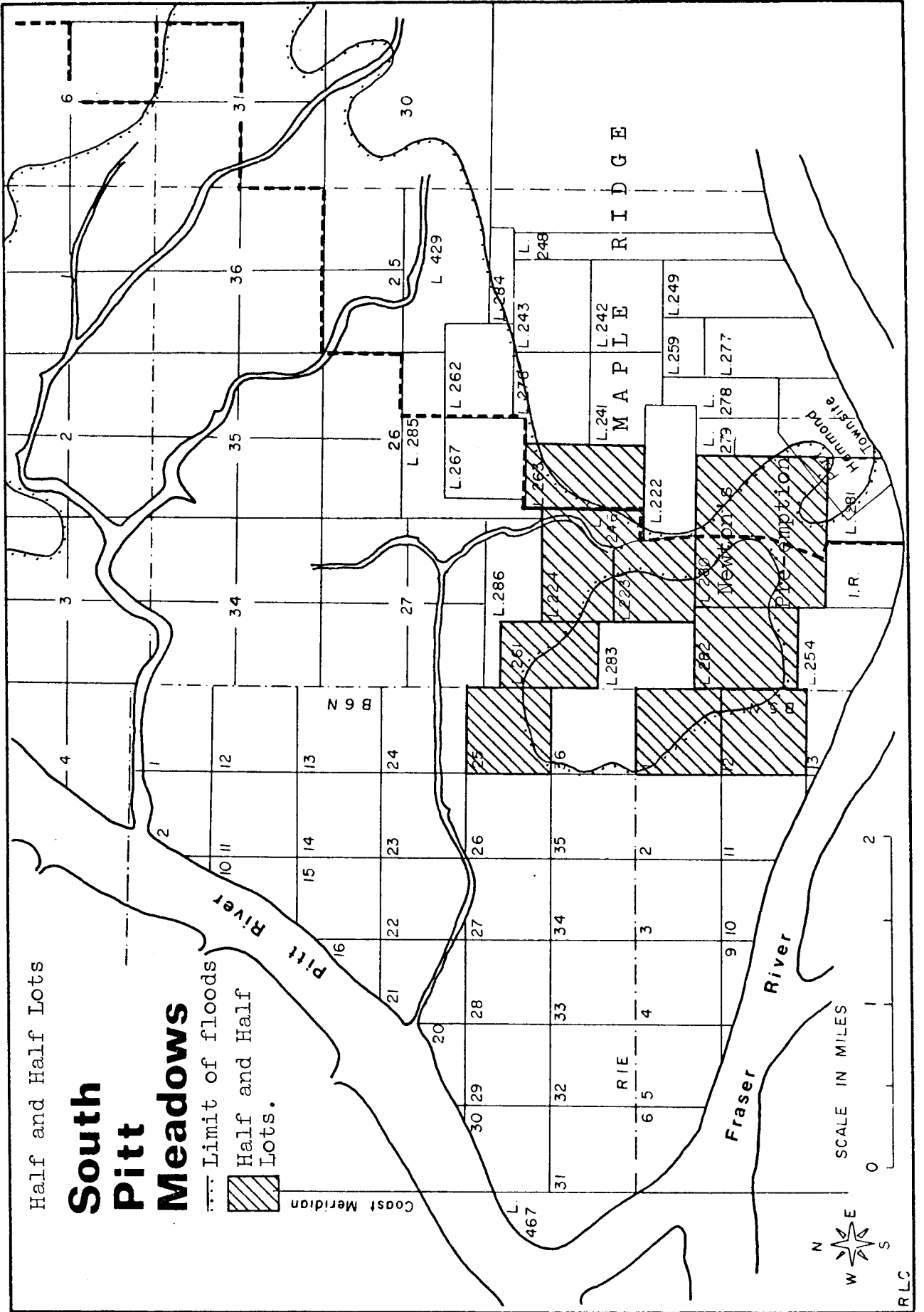
A year later this price was dropped to four shillings and two pence (\$1) an acre.¹⁸ An amendment to the act in 1861 permitted pre-emptors to use natural features (such as river frontage) as boundaries to their claims, while insisting that borders not marked by these features should run in straight lines to cardinal points of the compass.¹⁹ In September of 1861 pre-emptors were permitted to purchase unsurveyed vacant land adjacent to their original claim at the same price, provided they made a downpayment of one half of the price.²⁰ The effect of the Pre-emption Act and its amendments was to make all land in British Columbia readily available for settlement. The final amendment also permitted pre-emptors to become speculators and reflects the need of Douglas' administration for money, and his determination to leave no stone unturned, not even a

settlement act, to replenish the treasury from where he could.

The lands in south Pitt Meadows not surveyed by Trutch in 1859 were peculiarly suitable for settlement, and these lands were taken up by settlers under the terms of the Pre-emption Act during the 1860's and early 1870's. These lands were partly on the flood plain and partly on higher ground above flood level. The land below flood level was prairie, above that height was wooded. Pre-emptions on such lands may be called "half-and-half" settlements since many of these lots were almost exactly half woodland, half prairie. The sketch below, an east-west cross-section through south Pitt Meadows, indicates the location of some of these half-and-half farms, as does the map numbered 2-2 which follows. The map also indicates that three of the sections surveyed by Trutch could also be labelled as half-and-half. These were all, however, initially acquired by speculators, and in the pre-dyking period only one was farmed.



1873 An East-West Cross-section Through Pitt Meadows



Half-and-half lots had terrain and vegetation most favorable for settlement. Settlers did not have to clear land to graze their cattle, for lush meadow was at hand and available all year except for a few weeks in the summer when the river flooded. Neither did settlers have to haul lumber for their buildings, for trees grew in the very spot where they planned to build, on the higher land above flood level.

The first settler to pre-empt land at Pitt Meadows selected land with such features. He was William Newton, the chief factor of the Hudson's Bay Company's Fort Langley. Newton's chief interest at the fort was the garden and farm, and in 1862 he planned to retire from company service and make his hobby his livelihood. He pre-empted lot 281 on the banks of the Fraser River in the fall of 1862. The Pre-emption Act at this time permitted pre-emptors to purchase land adjacent to their original pre-emption for a downpayment of fifty cents an acre and Newton exercised this right, purchasing four hundred acres directly to the north of his original pre-emption.²¹ Newton's land encompassed both woodland and meadow, as indicated on the preceding map (2-2). It was also desirable because of its location beside the Fraser River, which gave access to New Westminster by boat, the only form of transportation available at the time.

Newton had plainly acquired more land than he could personally .

farm. Following his death his widow sold off most of his extra four hundred acres, while continuing to farm the original pre-emption, so he might be accused of using the Pre-emption Act to become a speculator in disguise, or perhaps of using the act as a life insurance policy to provide for his widow. However, two things may be said in his defence: the extent of his vast pre-emption gave him both river-frontage for transportation and high ground on which to drive his cattle during flood; and there is evidence from colonial newspapers that he was a keen farmer, for he is recorded as winning prizes at a horticultural fair in New Westminster for his vegetables, hops, oats and apples. 22

For four years after Newton's pre-emption no land is recorded as being pre-empted at Pitt Meadows, though it is probable that some pre-emptors did try to settle there, but deserted their lots. 23 Life was harsh for pioneer farmers. There was danger from floods, which could ruin crops and drown livestock; the region was infested with mosquitoes each summer which tormented both beasts and animals; neighbors were few and far between; contagious diseases could wipe out whole families; and markets for produce were uncertain as the population of New Westminster fluctuated with news of fresh gold strikes and the working out of claims. Yet while settlers were scarce at Pitt Meadows during the early 1860's many persons purchased land there as a speculation. Most of these speculators were discharged soldiers of the Royal Engineers detachment which had been stationed at New Westminster from 1859 - 1863. When the detachment was disbanded

most of the men elected to settle in the colony.²⁴ Seven of them, including their colonel, used their discharge pay to purchase sections at Pitt Meadows, and their acquisitions totalled over 1,200 acres.²⁵ The discharged soldiers could also claim a pre-emption of one hundred and fifty acres free of charge.²⁶ As the decade of the 1860's progressed five of these men did claim pre-emptions at Pitt Meadows, and thus ostensibly became settlers. However, the intentions of four of the five can hardly be regarded as sincere, since as soon as they received their Crown Grants they sold their land. These ex-soldiers were using laws designed to promote settlement to become speculators.

Altogether ten persons pre-empted land at Pitt Meadows. Their acquisitions are detailed on table 2-1, "Pre-emptions at Pitt Meadows", which follows. Five of these pre-emptors had gained their land free as a military grant, the other five had to pay for it. Settlers had to pay a ten dollar fee to register their pre-emption, and make a dollar-an-acre payment when their lots were surveyed. Since Crown Grants were not issued until land was completely paid for, the date of issue of the Grant indicates when the pre-emptor finally paid for his land. In Pitt Meadows there was a time-lag averaging about five years between the date of survey and the date of payment.²⁷ The record for delayed payment is held by ex-gold miner John Bowron, who did not pay for his pre-emption until 1889, fifteen years after it was surveyed. This delay may be a reflection of his success in the gold fields, or of his interest in making the required improvements to his

Table 2-1

Pre-emptions at Pitt Meadows

Lot no.	Acre age	Application Date	Name of Pre-emptor	Crown Grant Date	Notes
223	150	circa 1867	Charles Digby	10 Feb 1874	Military grant #
224	150	18 Jly 1867	John Cox	10 Feb 1871	Military grant #
246	52	17 Feb 1874	John Bowron	4 May 1889	Dominion sale
254	150	circa 1864	Philip Czart	6 Apr 1867	Military grant #
261	150	13 Oct 1873	James Cunningham	30 Jly 1874	\$1 an acre
262	150	13 Nov 1870	John McKenney	13 Nov 1870	Military grant
267	160	14 Nov 1872	John Foster	14 Nov 1872	Military grant #
280	400	15 Oct 1862	William Newton	15 Aug 1877	\$1 an acre*
281	150	15 Oct 1862	William Newton	15 Aug 1877	\$1 an acre*
282	200	15 Nov 1869	John Brough	14 Feb 1877	\$1 an acre**
283	147	22 Apr 1874 ***	Wellington Jeffers Harris	14 Feb 1879	\$1 an acre

285 }
286 } Pre-1874 settlers deserted these lots, which were resettled in 1887
429 }

* William Newton died before he paid for his land in full. Final payment was made by his widow, Emmeline, who later married surveyor Edward Mohun.

** John Brough died before he received his Crown Grant, and left the land in his will to his brothers.

***This land was pre-empted earlier, and deserted.

This land was sold within one year of the pre-emptor receiving his Crown Grant.

Data for this table was obtained from the Crown Grants and attached documents in the Department of Lands, Victoria, B.C.

property. The general delay in payment indicates the acute shortage of money that was available in the colony and early province so far as settlers were concerned. The modest payment of one dollar an acre was a major handicap to pioneer families.

Pitt Meadows settlers were not alone in being tardy in paying for their lots. In 1869 the colony's government proclaimed the Pre-emptive Payment Ordinance which was an attempt to collect money from delinquent pre-emptors.²⁸ This ordinance was ineffective since it contained no penalties for non-payment, a deliberate omission since the government did not want to drive away settlers, only urge them to pay for their land. The indebtedness of landholders to the Crown continued to be of concern to the British Columbia government after the colony became a province. A return tabled in the provincial parliament on April 25, 1876, showed that in all British Columbia \$56,000 was owing on land; in the New Westminster district (which included Pitt Meadows) twenty-two persons owed \$7,906.²⁹ This figure included the debts of the four pre-emptors in Pitt Meadows whose land payments were still delinquent in that year.

Provincial Land Policy

Land was taken up for pre-emption at Pitt Meadows between 1864 and 1874. By the latter date all the land suitable for settlement in this region, the half-and-half land, had been pre-empted. No surveyed land was sold during most of this period. The surveyed land, with the exception of two lots sold in 1863, did not appeal

to settlers since it lay on the flood plain. This land was not sold for speculation since the times were not propitious for such investments. During the 1860's the gold mines, on which the wealth of the colony was based, began to peter out. Both private and government revenue declined. The colonies of British Columbia and Vancouver Island were joined together in 1866 as an economy measure. The economic outlook brightened in 1871 with the union of the colony with Canada, linked as it was with the promise by Canada to build a transcontinental railway. However, this promise contained a condition that would deprive the new province of revenue from land sales. In exchange for building the railway Canada was to receive from British Columbia a forty-mile wide strip of land, being twenty miles on either side of the projected railway. This land, known as the "Railway Belt", was reserved to the dominion conditional upon the dominion beginning the railway within two years.³¹ The dominion required the land since it planned to raise money for building the railway from land sales within the Railway Belt.³² There was, in 1871, some uncertainty as to the route the railway would take. While one projected line ran through Pitt Meadows, from the Yellowhead Pass to Burrard Inlet, other routes were also under serious consideration. Since the route was uncertain in 1871, the Terms of Union forbade British Columbia to sell or alienate any public land other than under terms which were conditional upon settlement.³³ Whatever route the railway would eventually follow, the dominion government did not want to find the lands in its Railway Belt already acquired by speculators. The effect of the

Terms of Union in Pitt Meadows, as in the rest of British Columbia, was to prevent land sales for two years from 1871-1873.

Canada failed to begin work on the projected railway within the time limit, so British Columbia was released from its obligation not to sell land unconditionally. The province responded by a vigorous renewal of Douglas' survey-and-sell policy. A land auction was held in Victoria on 30 September, 1873, and two major sales were made of Pitt Meadows land, one of 820 acres and one of 480 acres, to New Westminster businessmen. Prices for various parcels varied between one and two dollars an acre.³⁴ In the same year surveys were run throughout the Lower Fraser Valley, in 1874 pre-emptors' lots were surveyed at Pitt Meadows, and by 1875 all Pitt Meadows land was surveyed.³⁵ The province used the type of survey which had been employed by the dominion government in Manitoba. Land was surveyed into rectangular townships six miles square. The land within the townships was divided into square miles, called sections. Survey stakes were placed every half-mile along the lines dividing the sections, and from these stakes the land could be divided into quarter sections. The basic unit for settlement was intended to be the quarter section, which contained 160 acres, the same acreage as the sections of the Block and Range survey made in west Pitt Meadows by Trutch. Land previously surveyed was not resurveyed, but was included within the boundaries of townships. The Block and

Range lands and pre-emptions were included in township 9, as indicated on map numbered 2-3 which follows. A difference from the Manitoba survey in British Columbia was that no road allowances were made, so that settlers later lost some of the edges of their property to roads.

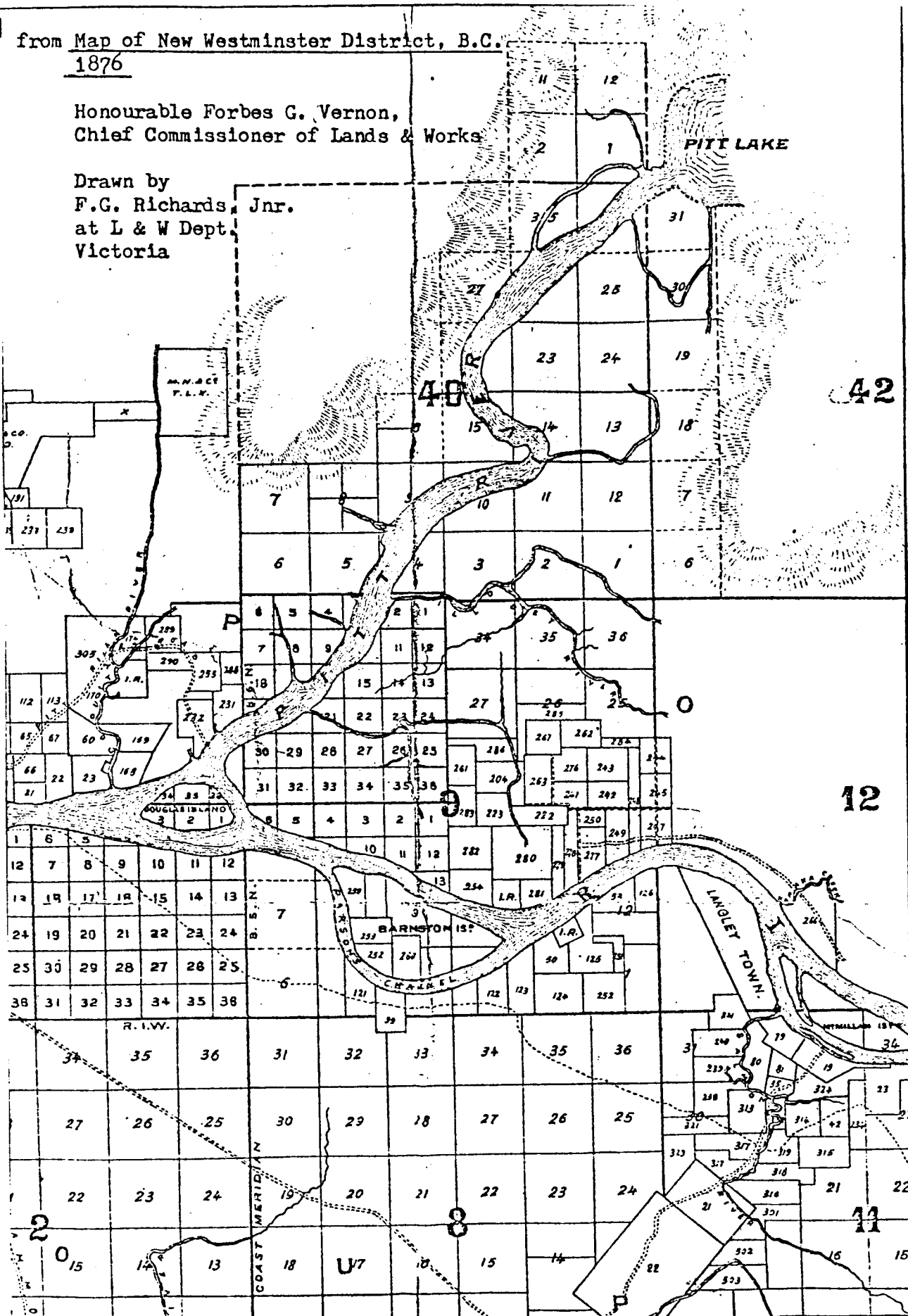
In spite of the total surveying of Pitt Meadows in the years following the removal of the railway reserve, apart from land sold at the 1873 auction no land was sold in the area for fourteen years, from 1873 -1887. This lack of interest may be explained chiefly by the nature of the remaining Crown land, which was swampy and liable to flood. Elsewhere in the Fraser Valley and throughout the province land sales continued through this period, as indicated on the graph 2-1, "Land Purchases, Lower Fraser Valley and British Columbia" which follows. A major flood which inundated Pitt Meadows to record levels in 1882 may have helped to dissuade speculators from buying the land.

During the fourteen year period of no land sales at Pitt Meadows land began to be acquired there free under the homestead system. This system, like the pre-emptive system, was borrowed from the United States.³⁶ It was adopted by the Canadian government in 1872, which detailed its operation in the Dominion Lands Act.³⁷ By the terms of this act a homesteader could be granted 160 acres of land free on payment of a \$10 registration fee, settlement on and cultivation of his

from Map of New Westminster District, B.C.
1876

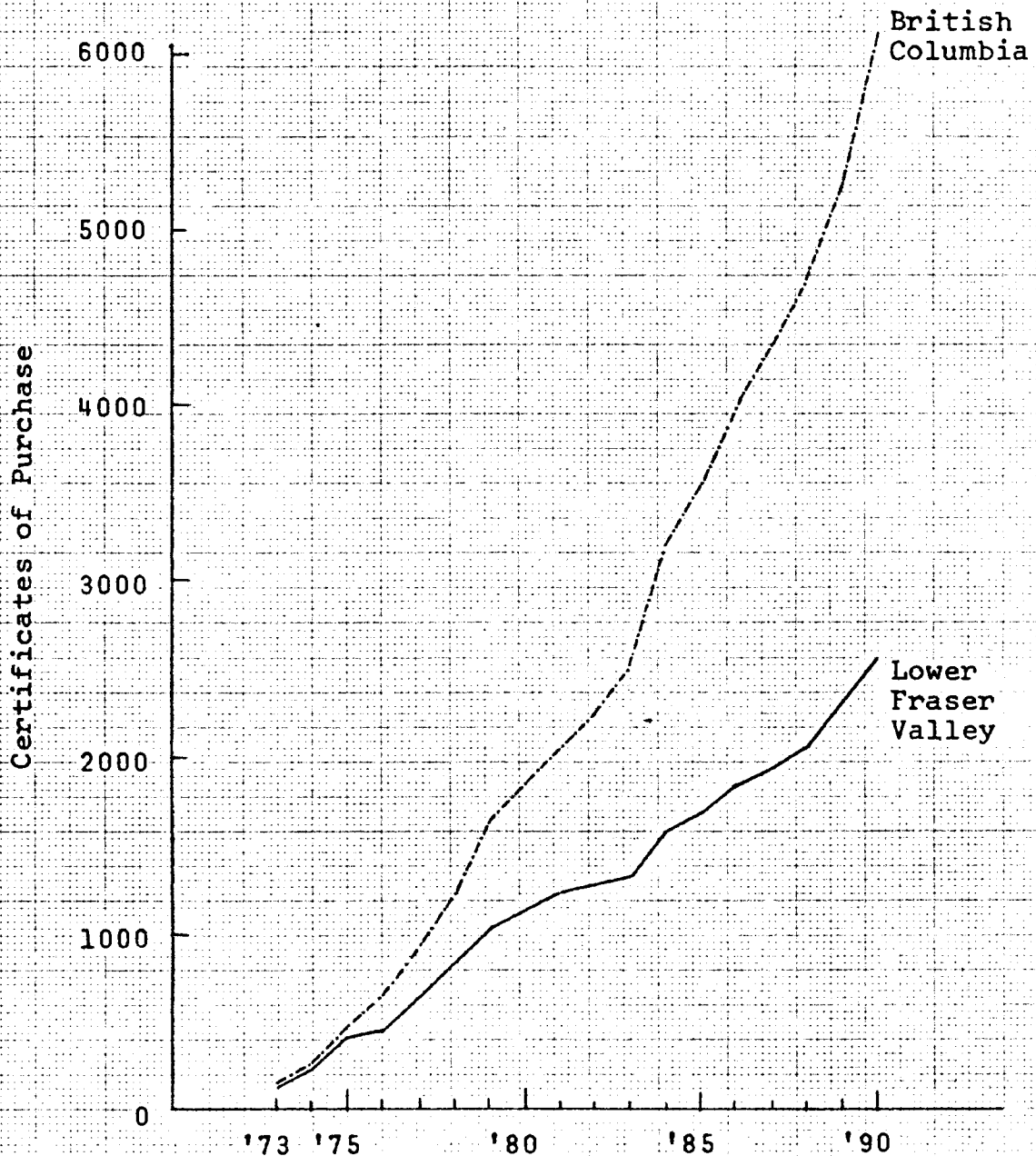
Honourable Forbes G. Vernon,
Chief Commissioner of Lands & Works

Drawn by
F.G. Richards, Jnr.
at L & W Dept
Victoria



Graph 2-1

LAND PURCHASES, LOWER FRASER VALLEY
and BRITISH COLUMBIA
(from 1873 - 1890, cumulative)



Source: R.E. Cail, "Disposal of Crown Lands in British Columbia 1871 - 1913", unpublished MA thesis, University of British Columbia 1956, appendix.

land (which was called a homestead) for three continuous years, including actual residence on the homestead for at least six months in every year. Title to the land was then granted on the sworn affidavit of the homesteader that he had fulfilled the conditions of the act, and that his interest in his land was "for the purpose of actual settlement."³⁸ Two years after the enactment of this dominion law the province of British Columbia enacted a similar statute, except that the province required residence on the homestead for only two years compared to the dominion's requirement for three.³⁹ By the time the provincial homestead law came into effect all the land at Pitt Meadows suitable for settlement (the half-and-half land) had been acquired under the terms of the Pre-emption Act. However, one courageous settler did try and homestead on the meadows under the terms of the provincial homestead act. He settled on lot 467, sixty-eight acres on the tip of land at the confluence of the Pitt and Fraser Rivers in the extreme west of Pitt Meadows. This homestead sat squarely on the flood plain and the summer floods must have made life harsh for the homesteader. Within two months of obtaining his Crown Grant he had sold his land to a speculator.⁴⁰ By this sale the homesteader became a speculator who had acquired land under an act intended to promote settlement, in the same way as the four military pre-emptors who had sold out as soon as they received their title. There was this difference, however. The military pre-emptors had received

their land for free. The homesteader had paid for his land with two years of his life.

The lack of interest in acquiring land under the provincial homestead law at Pitt Meadows reflected a province-wide situation. In a study of the effect of this act Cail discovered that during the period of its effect, from 1874 - 1878, only 437 homesteads were taken up under its provisions, most of these (343) in the Lower Fraser Valley.⁴¹ During this time over 1,497 certificates of purchase were issued, indicating that of every five persons acquiring Crown land, four were paying for it. This situation would seem to indicate that four-fifths of the Crown land of the province was being alienated for speculation rather than settlement, since those who wished to settle could acquire land free from the province as a homestead. If the experience of the provincial homesteader at Pitt Meadows was common, then much of the one-fifth of Crown land being alienated in this period for homesteads would also pass into the hands of speculators.

Dominion Land Policy

In 1878 the right to dispose of Crown land at Pitt Meadows passed from the province to the dominion, a consequence of the renewed pledge of the dominion to build the transcontinental railway. In that year John A. Macdonald and the Conservatives

returned to power in Ottawa committed to build the line. The contract between the dominion and the provincial governments for the Railway Belt was renewed, and the route of the railway and its encompassing Belt definitely established from the Yellowhead Pass to Burrard Inlet, a route that lay through Pitt Meadows.⁴² The Railway Belt was a strip of land twenty miles on each side of the proposed railway, and since all land at Pitt Meadows was within that distance of the proposed line, the disposition of the Crown land remaining in the area became a matter of dominion law.

The dominion, as much as the province, was anxious to make money from the sale of land, and hoped to pay the cost of the railway by sales of land from within the Railway Belt. However, the dominion was also pledged to donate land free to settlers under the provisions of the Dominion Lands Act. These two objectives seem mutually incompatible, yet the dominion had a purpose for its two-fold policy. If all the land in the Railway Belt had been sold to speculators, the money would have been available for building the railway but the people who would travel or produce goods to ship on it would have been absent. If all the land had been granted free to settlers, the people and goods would have been present but the money for building the track absent. Since both money and people were needed for the railway, the dominion had to follow policies which would provide both.

For seven years following the imposition of the Railway Belt on Pitt Meadows no settlers nor speculators took up land there. The same difficulties of farming this floodland remained under dominion law as had existed under provincial law, and speculators may have been discouraged by the same factor, since if the land was useless for farming its potential value was most uncertain, making it a poor speculation. Yet, following the completion of the railway in 1885 interest in Pitt Meadows land revived. The railway brought people to the Lower Fraser Valley, and led to the rapid growth of urban centres to the immediate west of Pitt Meadows. This increase of population made land more valuable, both to speculators and to farmers. Speculators became interested in land near cities since the increasing pressure of population raised its value. Farmers became interested in the land since they could sell the produce gained from it to the people of the growing cities. This growing interest was accompanied by an interest in dyking. Dyking works had been constructed in the Lower Fraser Valley, in the delta region, as early as 1864. Fifteen miles upstream from Pitt Meadows, at Matsqui, dyking began in 1878. Provincial law had existed since 1873 to permit and encourage the formation of dyking districts.⁴³ With the coming of the railway through Pitt Meadows in 1885, with the growth of population pushing up land prices and providing a ready market for farm produce, and the possibility of dyking, interest by speculators and settlers in Pitt Meadows land increased, so that by the

end of the decade of the 1880's all the remaining Crown land there was alienated.

Six persons attempted to settle on Pitt Meadows' land between 1885 and 1889 as homesteaders under the provisions of the Dominion Lands Act. Their homesteads are marked with an "H" on the map of Land Alienation (numbered 2-4). The homesteaders were very determined people since their homesteads would be covered with water for a few weeks every summer, in some parts to a depth of four feet. They apparently decided to get free land while they could, and endure the temporary inconvenience of summer flooding in expectation that dykes would soon be built. The task of farming such land proved to be too much for two of them. These were the Gauthier brothers, Henry and Theophile, who had homesteaded sections in west Pitt Meadows in 1887 and 1889. Henry sold his land the year he obtained title, while Theophile kept his for a short time, but moved to New Westminster as soon as he had title. By 1898 his section had become the property of the Edinburgh-America Land Mortgage Company Limited.⁴⁴ The Gauthier brothers, like Thomas Ovens (the provincial homesteader of 1878 at Pitt Meadows), had become unintentional speculators. Intending to homestead, they were defeated by the nature of their land, and sold the property they had intended to settle.




Other homesteaders, who had acquired floodlands at the foot of the north slope of Maple Ridge, were able to hold onto their

Map 2-4

Periods of Land Alienation

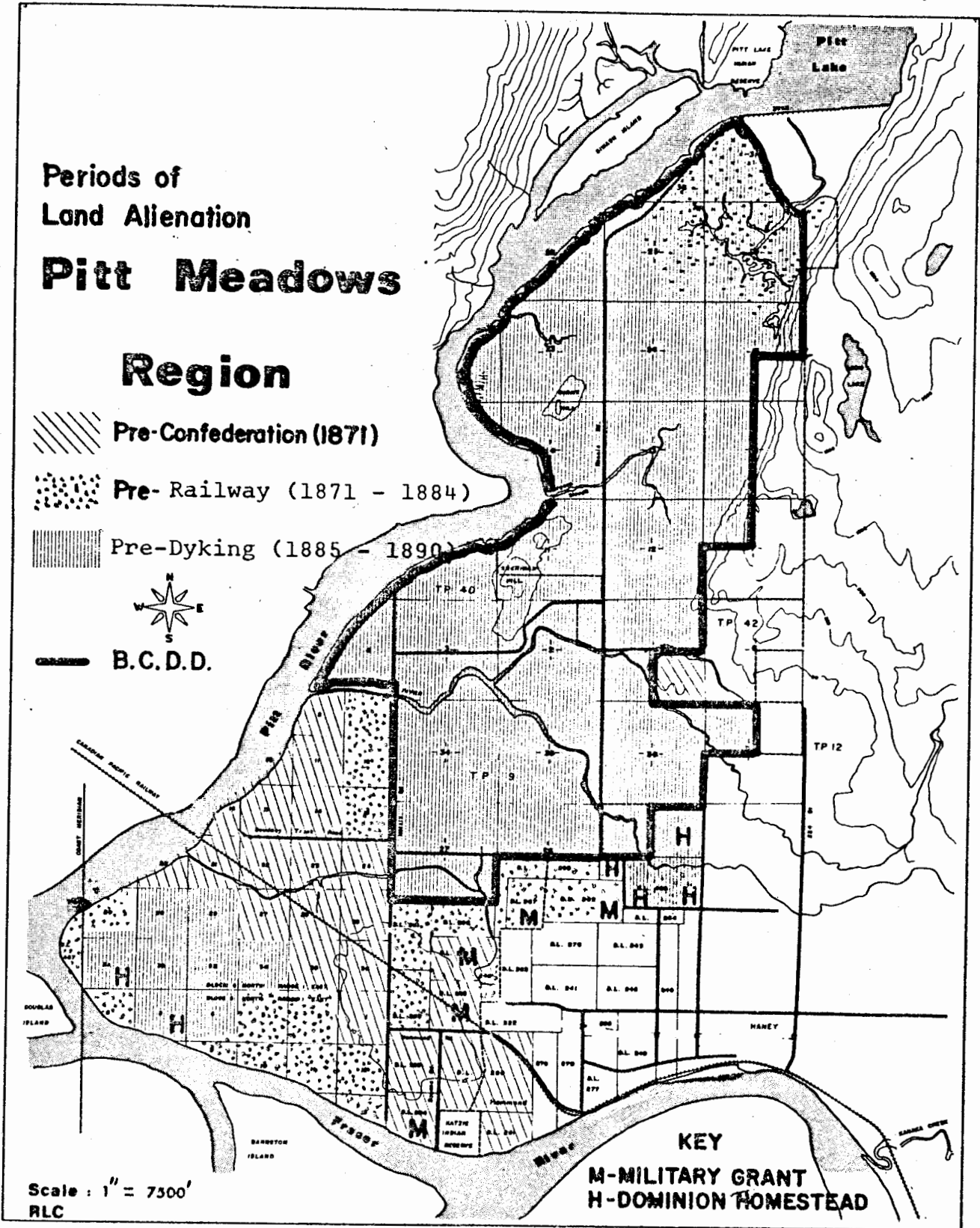
Pitt Meadows

Region

-  Pre-Confederation (1871)
-  Pre-Railway (1871 - 1884)
-  Pre-Dyking (1885 - 1890)



 B.C.D.D.



Scale : 1" = 7500'
RLC

KEY
M-MILITARY GRANT
H-DOMINION HOMESTEAD

land until the region was dyked. Since their land was sloping land, they were able to build their homes on the upper portions where the floods could hardly reach, and were better able to survive than the Gauthier brothers, whose land was completely flat.

In the final phase of land alienation (from 1885 - 1890), while almost 1,000 acres was acquired by homesteaders, about 18,000 acres was alienated for speculation. In the south of Pitt Meadows the major purchaser (of 640 acres) was Judge W.N. Bole, a justice of the provincial supreme court. In this same period Bole also bought land previously alienated, so that when dyke construction began in 1893 he held altogether 859 acres and was the largest individual landholder at Pitt Meadows.⁴⁵ Other purchasers were local farmers who, like the judge, foresaw the possibility of dyking and the rise in land prices that would result, and took advantage of the opportunity to acquire the last available Crown land for speculation. However, the purchases of these individual speculators were small when compared to the acquisition of a land company which became interested in Pitt Meadows at this time, the British Columbia Drainage and Dyking Company.⁴⁶ This company acquired approximately 17,000 acres in central and north Pitt Meadows in 1890 by Order-in-Council of the dominion government. These lands comprised the northern two-thirds of Pitt Meadows and had not been alienated by previous speculators or settlers because of their extreme susceptibility to flood. The

BCDD purchased these lands from the dominion at a cost of \$5.75 an acre, payable when the company had made good its pledge to dyke the land. While the BCDD was not a speculator like other speculators because its ownership of land was conditional upon reclamation, yet it had purchased the land with the intention of selling it at a profit, and so was a speculator none-the-less.⁴⁷

Conclusion

The graph "Land Alienation, Pitt Meadows" (numbered 2-2) indicates the pattern of land alienation in this region. The graph does not include the acquisition of the BCDD but traces the acquisition of Crown land by individual speculators and settlers. The BCDD purchase was omitted to permit the use of a scale which would clearly indicate the stages by which land was acquired.

The graph indicates that land was acquired for speculation at Pitt Meadows in three bursts, during 1863, 1873, and 1890. These periods correspond to the release of the Royal Engineers, the expiry of the dominion's Railway Reserve, and the post-railway period. In the first burst land was sold by the colony, in the second by the province, and in the third by the dominion. Each of these governments had land alienation laws which favored settlers over speculators, but each had laws which permitted speculation. Why did people want to speculate in land at Pitt Meadows? The major reason was that it was near growing centres of population, and as the number of people increased land was

Graph 2-2

LAND ALIENATION, PITT MEADOWS

Sources: Indexes of Crown Grants, Department of Lands, Victoria, B.C.

Registers of Absolute Fees, Land Registry Office, New Westminster, B.C.

Tax Assessments Records, Municipal Hall, Maple Ridge, B.C.

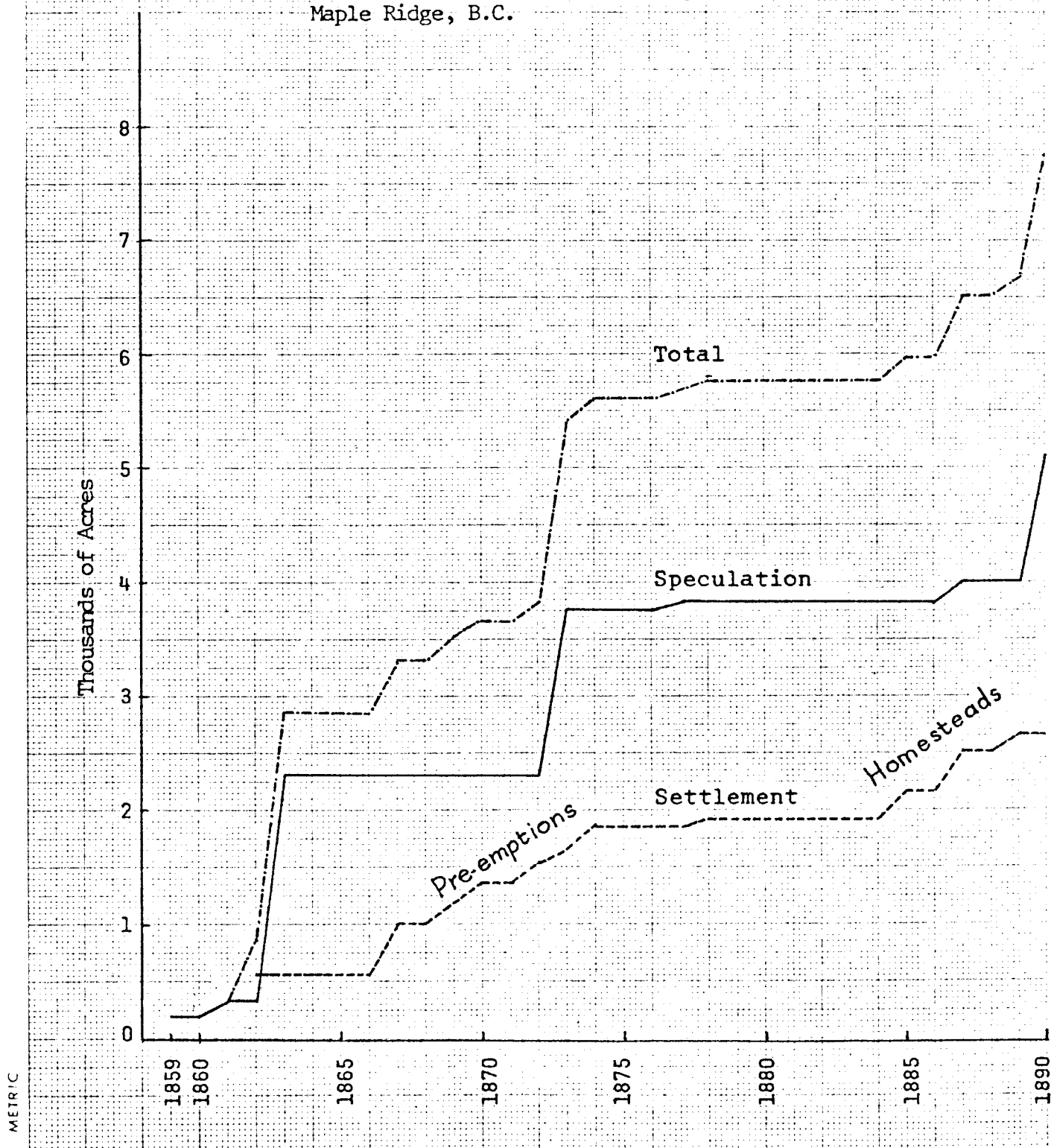


Table 2-2

Table of Crown Grants, Pitt Meadows (in chronological order)

Date Applied For	Person Applying	Date Grant Issued	Legal Description of Land	Acreage (Spec. or Settle.*)	Price Paid in \$
6 Oct 1859	Charles Good	29 Oct 1863	B6N secs 10 & 11	209 spec	1.21
21 Aug 1861	William Holmes	19 Oct 1861	B6N secs 2 & 3	132 spec	1.01
15 Oct 1862	W.H. Newton	15 Aug 1877	Lots 280 & 281	560 sp/set	1.00
11 Mar 1863	H.P.P. Crease	25 May 1871	B6N sec 27	160 spec	1.01
30 Mar 1863	Howse & Schmidt	6 May 1871	B6N sec 26	160 spec	1.01
30 Mar 1863	R.C. Moody	17 Sep 1877	B6N sec 23	160 spec	1.01
30 Mar 1863	J.J. Cochrane	18 Sep 1863	B6N sec 22	160 spec	1.01
1 Apr 1863	L.F. Bonson	2 Jan 1874	B6N sec 24	160 spec	1.01
21 Apr 1863	J.J. Cochrane	18 Sep 1863	B6N, 19, 20, 21	215 spec	1.01
" "	" "	" "	B6N secs 15 & 16	168 spec	1.01
5 Jun 1863	Joseph T. Baldwin	11 Mar 1884	B6N sec 25	160 Spec	1.01
9 Jun 1863	J. Normansell	4 Nov 1864	B5N sec. 1	160 settle	1.01
31 Aug 1863	J.J. Cochrane	30 Jly 1874	B6N sec. 14	160 spec	1.01
30 Nov 1863	Lindsay & McKenny	30 Aug 1871	B6N secs 35 & 36	320 spec	1.01
no data	Philip Czart	6 Apr 1867	Lot 254	150 settle	M.**
----- 1867	Charles Digby	10 Feb 1871	Lot 223	150 settle	M.**
18 Jly 1867	John Cox	10 Feb 1871	Lot 224	150 settle	M.**
15 Nov 1869	John Brough	14 Feb 1879	Lot 282	200 settle	1.00
13 Nov 1870	John McKenny	13 Nov 1870	Lot 262	150 settle	M.**
14 Nov 1872	John Foster	14 Nov 1872	Lot 267	160 settle	M.**
30 Sep 1873	Edward Sharpe	7 Dec 1875	B6N secs 1,12,13	480 spec	1.00
30 Sep 1873	Wm. Clarkson	6 Aug 1877	B5N, secs 2,3,9, 10,11,12,13.	820 spec	2.00+
13 Oct 1873	Jas. Cunningham	30 Jly 1874	Lot 261	150 settle	1.00
10 Nov 1873	Alex McLean	no data	B6N, sec. 30	136 spec	1.00
17 Feb 1874	John Bowron	14 May 1889	Lot 246	52 spec	n.d.
20 Apr 1874	W.J. Harris	25 Feb 1886	Lot 283	147 settle	1.00
3 Apr 1877	Henry Holbrook	19 Apr 1890	B5N sec. 6	60 spec	1.00
27 Jly 1878	Thomas Ovens	17 Aug 1881	Lot 467	68 settle	Free #
15 Aug 1885	David C. Webber	21 May 1888	Tp 9 sec 25 NE	160 settle	H.##
12 Jly 1885	John Trembath	19 May 1888	Lot 429 (part)	70 settle	H.##
27 Feb 1887	Alfred Chatwyn	29 Jun 1900	Tp 9 sec 25 SE	160 settle	H.##
9 Jly 1887	William Hampton	6 Sep 1893	Lot 429 (part)	46 settle	H.##
----- 1887	Theo. Gauthier	31 Oct 1890	B5N sec. 5	143 settle	H.##
29 Nov 1887	John McKenny	2 May 1892	Lot 285 (part)	111 settle	n.d.
1 Dec 1887	Thomas Laity	17 Jly 1888	Lot 285 (part)	73 settle	n.d.
----- 1889	Henry Gauthier	29 Mar 1892	B6N sec. 31	160 settle	H.##
1 Sep 1890	James Burns	6 Oct 1890	B5N sec 4	160 spec	n.d.
----- 1890	W.J. Harris	17 Oct 1890	Lot 286	142 spec	n.d.
----- 1890	James G. Cook	31 Oct 1890	B6N sec. 34	160 spec	n.d.
----- 1890	Wm. N. Bole	20 Jun 1893	B6N, secs. 28, 29, 32, 33.	640 spec	n.d.
TOTALS: Speculation = 5214 acres (67%), settlement = 2568 acres (33%)					
NOTES: * = Speculation or Settlement. M.** - Military Grant					
Free# = This land granted free under the B.C. Land Ordinance of 1874.					
H.## = This land granted free under the Dominion Lands Act, 1872.					
+ = Various sections at various prices, from \$1.37 to \$2.00 an acre.					
SOURCES: Indexes of Crown Grants, the Crown Grants themselves, copies of Dominion Fiats, and miscellaneous papers filed with the Crown Grants, Department of Lands, Victoria, B.C.					

bound to become a scarcer, hence more expensive, commodity. The Royal Engineers needed a little faith and hope to see this, since at the time of their discharge the prospects for the future of the colony seemed most uncertain. By 1873, however, the province was a part of the dominion of Canada to which it would be tied by a railway at some future time, and nearby Burrard Inlet was the possible future site of Canada's west coast port. Yet when the railway was planned and begun little land was purchased for speculation at Pitt Meadows. The explanation for the period of stagnation of land sales between 1874 - 1887 must be attributed to the nature of the land at Pitt Meadows, since elsewhere in the Fraser Valley during this period land sales continued. It was the prospect of dyking which provided the incentive for alienation of the last Crown land, but this prospect was based upon the growth of nearby population centres. If Pitt Meadows had been in a remote part of the province it would not have been dyked in the last decade of the nineteenth century, possibly would not be dyked today. It was the nearness of this fertile land to major population centres which made it valuable and worth dyking.

In 1881 the Lower Fraser Valley had a population of just under 8,000, but ten years later this had risen to 41,500.⁴⁸ Much of this growth was in the city of Vancouver, which at its founding in 1886 was estimated to have 600 people and by 1891 a population of 13,000.⁴⁹ The people of the growing city needed food. The adjacent land was rocky hillside heavily wooded, but a short distance away were the fertile prairies of the Fraser Valley,

among which was Pitt Meadows. These prairies seemed to speculators to be the future farms that would supply the growing city with food. The Pitt Meadows prairie was not attractive to the settler because of the annual floods. He could not wait for dykes to be built while floods washed out his crops, drowned his livestock and ruined his home. But the speculator could wait. He had money for long-term investment and believed that when Pitt Meadows land was dyked he could sell property there for farmland at a considerable profit.

The price paid by speculators to the Crown for Pitt Meadows land was low. Most acquired their land for \$1 an acre, and none for more than \$5.75.⁵⁰ Taxes were low.⁵¹ While short-term profits were likely to be poor, the prospects for long-term profits were high. In the 1860's the prospect of dyking was remote, in the 1870's it was a possibility, in the 1880's a probability, and in the 1890's became a reality. With each decade the speculator-owned lands appreciated in value, and those speculators who could held onto their land, in some cases for over a quarter of a century, as indicated on the table 2 - 3 following, "Long Landholding in Pitt Meadows." For such land holders Pitt Meadows was a bank for the long-term investment of surplus funds.

The land at Pitt Meadows which was alienated for settlement was acquired mainly in two bursts, as shown on the graph of land alienation (2-2). The first burst, from 1866 - 1874, was the

Table 2-3

Long Landholding in Pitt Meadows

Landholdings in Pitt Meadows held for more than 25 years, listed in rank of duration.

Duration in years	Location	Acreage*	Name, occupation, address	Year Acquired	Year Sold	Type of Holding
42	Lots 280 & 281	236	Alienated by W.H. Newton, and held by his widow Emmeline Newton (later Emmeline Mohun)	1862	1904	Spec/farm.
42	B6N sec. 27	160	H.P.P. Crease, attorney, Victoria.	1863	1905	Spec.
38	Lot 224	150	H.V. Edmunds, realtor, Victoria. After 1897 held by his son William.	1876	1914	Spec.
35	B5N sec. 6	60	Henry Holbrook, merchant, New Westminster. After 1903 held by his estate.	1877	1912	Spec.
34	B6N, secs 10 & 11	209	Charles Good, civil servant, Victoria.	1859	1893	Spec.
31	B5N secs 2,3,9,10, 11,12,13.	820	William Clarkson, nurseryman, New Westminster. After 1899 held by his estate.	1873	1904	Spec.
29	B6N sec. 2	130	William Holmes, merchant, New Westminster.	1861	1890	Spec.
28	Lot 280 (part)	180	John and Daniel Callaghan, farmers, Pitt Meadows.	1877	1905	Farm.
27	B5N sec. 1	160	James and Edward Cook, farmers, Pitt Meadows.	1877	1904	Farm.
27	B6N, secs. 14,14,16, 19,20,21, 22.	703	J.R. Foord, England.	1876	1903	Spec.
26	Lots 283 and 223	310	W.J. Harris, farmer, Pitt Meadows.	1874	1900	Farm/spec.

Total acreage held for more than 25 years is 3118, i.e. forty percent of land alienated by individuals.

* In some cases the person listed held more land, but only that acreage is listed which was held for the duration shown.

Sources: Indexes of Crown Grants, Department of Lands, Victoria, B.C.
Tax Records of the Municipality of Maple Ridge, 1874 - 1896.
Tax Records of the District of New Westminster, 1896 - 1914.

pre-emption period. This land was attractive to settlers because it was half-and-half land, and also because, under the provisions of the Pre-emption Act, it could be acquired initially for free. Most pre-emptors obtained their land completely free as a military grant. The second burst, from 1885 - 1889, was the dominion homestead period. The land acquired for settlement during this period was free. It was less favorable for agriculture than land which had been pre-empted because it was on the flood plain, but the prospect of dyking made settlement seem possible and encouraged homesteaders to take land and endure floods for what they hoped would be only a short period.

The graph of land alienation (2-2) gives a somewhat false picture of land ownership at Pitt Meadows by 1890. It indicates that the land acquired for settlement was a larger proportion of the total area than in fact it was. Many lands ostensibly alienated for settlement quickly passed into the hands of speculators as soon as the pre-emptor or homesteader gained his title and could sell out. Other settlers speculated by obtaining more land than they could possibly farm, thus being both settlers and speculators. Even the basic one hundred and fifty or sixty acre pre-emption or homestead permitted the settler to obtain much land that he did not use, or did not use effectively.

Speculators alienated ninety per cent of Crown land at Pitt Meadows if the acreage acquired by the BCDD is taken into account.

If this amount is excluded and only the land acquired by individuals is considered, then speculators alienated sixty-seven per cent of Pitt Meadows. This is the proportion shown on the graph of land alienation. But a process of attrition had taken place during the period of land alienation, as land had passed from settlers to speculators. The table that follows, number 2-4, "Land Holdings at Pitt Meadows, 1890", is an attempt to determine how much of the land at the end of the period of land alienation was held for speculation. The table shows that by 1890 seventy-two per cent of the land was held for this purpose. When further adjustments are made for 1893, the year in which dyke building was begun, then speculative holdings are found to have increased to seventy-six per cent. If only the land below flood level is considered, then the speculative proportion increases to eighty-two per cent in 1893.⁵² These proportions are demonstrated in reverse, as declining proportions held for settlement, on the graph 2-3, "Landholding for Settlement, Pitt Meadows". Both the table and the graph demonstrate that most land at Pitt Meadows prior to dyke building (1893) was acquired for speculation, and that much land alienated from the Crown under laws which tied its alienation to settlement came to be owned by speculators.

Laws relating to land alienation, colonial, provincial and dominion, had favored the settler over the speculator. The pre-emptor could obtain land initially for free and was given plenty of time to pay for it. Homesteaders obtained land completely

Table 2-4

Land Holdings at Pitt Meadows, 1890 (excluding the holdings of the British Columbia Drainage & Dyking Company)

Land Owned	Name of 1890 holder, address and occupation	Spec. Acres	Farm Acres	1893 Notes
B5NR1E Sec. 1	James & Edward Cook, Pitt Meadows, farmers		160	
2,3,9,10, 11,12,13.	Wm. Clarkson, New Westminster, nurseryman and hotel keeper.	820		
4.	James Burns, New Westminster	160		
5.	Theophile Gauthier, Port Hammond, farmer		134	to spec.
6.	Henry Holbrook, New Westminster, merchant.	60		
B6NR1E				
1,12,13.	Edward A. Sharpe	480		
2.	James Crawford	132		
10 & 11.	Charles Good, Victoria (retired)	209		
14,15,16,	J.R. Foord, Rochester, England.	863		
19 - 23.	" " "			
24.	Thomas McInnes, Victoria, physician.	160		
25.	Pickles and Morton	160		
26.	William Wilson	160		
27.	H.P.P. Crease, Victoria, attorney.	160		
30.	L.B. Hamblin, Victoria.	136		
31.	Henry Gauthier, Pitt Meadows, farmer.		160	to spec.
28,29, 32,33.	William Norman Bole, New Westminster, judge.	640		
34.	James Cook, Pitt Meadows, farmer.	160		
35,36.	William Manson, Pitt Meadows.	160	160	
Lots				
254 & 282	Jemina Bonson, P.M., wife of contractor.	150	220	
223 & 283	W.J. Harris, Pitt Meadows, farmer.	150	160	
261 & 286	" " "	292		
224	H.V. Edmonds, New Westminster, realtor.	150		
262	William Hampton, Hammond, farmer.		150	
246	John Bowron, Barkerville, miner.	40		
280 & 281	Emmeline Mohun, Pt. Hammond, wife of surveyor	250	50	
280(West)	John & Daniel Callaghan, P.M., farmers.		180	
285(West)	John McKenny, Pitt Meadows, farmer.		110	
285(East)	John Laity, Maple Ridge, farmer.		70	
429(East)	Alfred Chatwin, Maple Ridge, farmer.		160	
429(West)	part - John Tremath, Maple Ridge, farmer.		70	
429(West)	part - William Hampton, M.R., farmer.		46	
467	William Norman Bole, New Westminster, judge.	60		
Tp.9, Sec.	25NE David Webber, Maple Ridge, farmer.		160	
Totals		5552	2150	
Percentage of total acreage		72	28	

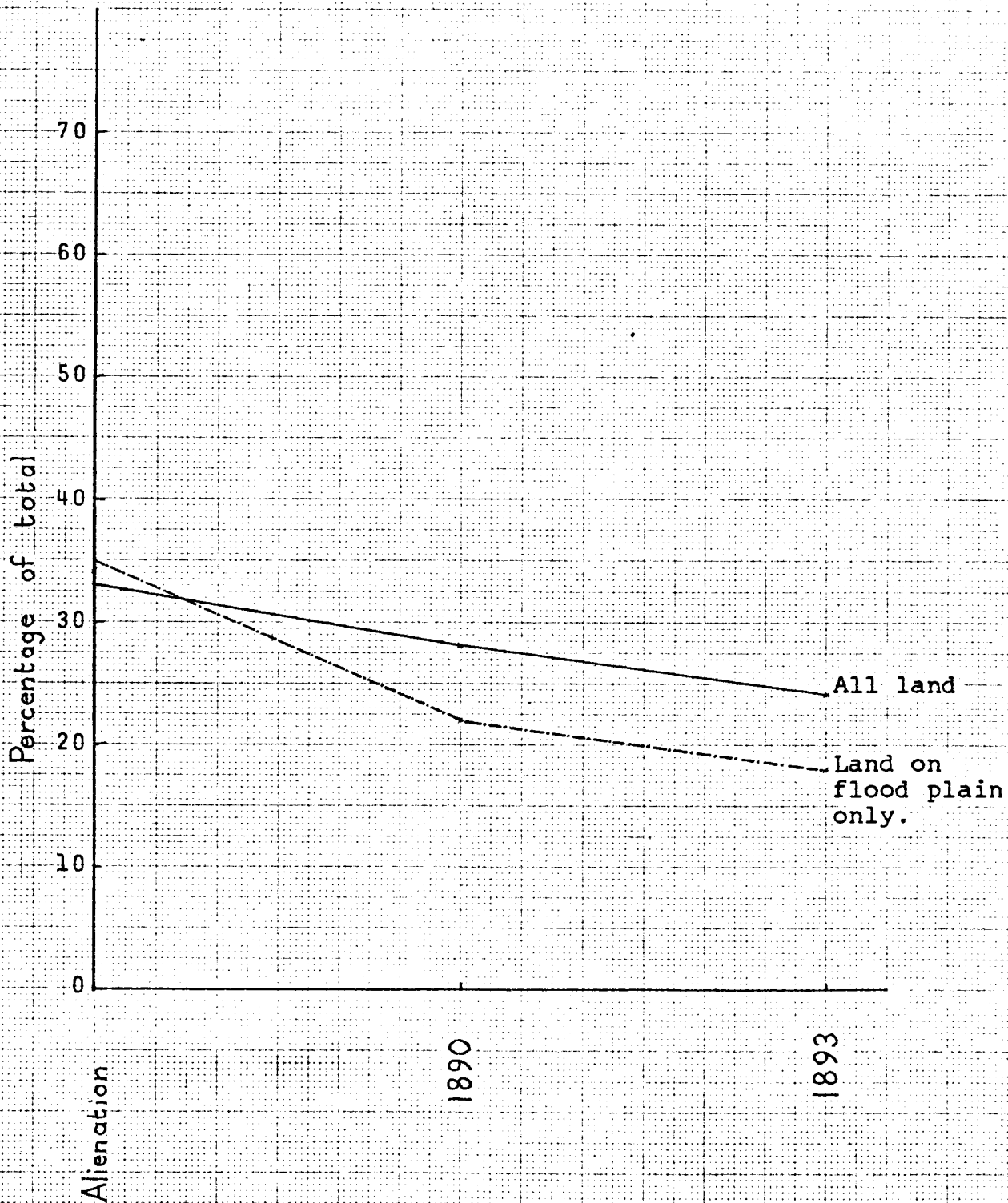
Sources: Land ownership from Tax Records of the Municipality of Maple Ridge.
Addresses and occupations from:

- Tax Records of the Municipality of Maple Ridge.
- R.E. Gosnell, A History of British Columbia, Lewis Pub. Co., 1906.
- J.B. Kerr, Biographical Dictionary of Well-known British Columbians with an Historical Sketch, Vancouver, Kerr & Begg, 1890.
- Williams' British Columbia Directory, Victoria, R.T. Williams, for various years between 1880 and 1890.

Graph 2-3

LANDHOLDING FOR SETTLEMENT

PITT MEADOWS



free. Yet while land might be alienated under laws which made ownership conditional upon settlement, once the coveted Crown Grant was received the land was the owner's to dispose of as he wished. The annual flooding of their land led many Pitt Meadows settlers to sell to speculators land they had acquired under conditions of settlement.

The sale of his pre-emption or homestead made the settler a speculator also, in a sense. He was using land as a commodity to be bought and sold, rather than as a resource to be used. Instead of paying cash for his speculation he paid for it in years of his life spent improving his property, for all settlement laws (colonial, provincial, and dominion) required improvement before granting title. Two, three, or more years of one's life spent in improving property is an expensive way to pay for a speculation, and it is unlikely that settlers began work on their pioneer farms with the intention of selling out as soon as they received title. An exception to this may have been those who received pre-emptions as military grants. But by and large settlers on the flood plain at Pitt Meadows were driven into becoming speculators by the summer floods.

The nature of the land at Pitt Meadows, generally speaking, did not favor settlement. The only people who wanted the land were speculators. While the law favored the settler the land favored the speculator. This does not imply that speculators came to control most of Pitt Meadows only because of the nature of the

land. Speculation flourished throughout British Columbia from the beginning of the colony. This was largely because agriculture was not a major economic activity, and pioneers who became rich saw in the purchase of land a secure investment for their surplus funds. Those who speculated by purchasing land at Pitt Meadows were high government officials, wealthy lawyers and doctors, and businessmen from New Westminster and Vancouver. Their wealth had flowed to them from gold mining. Government, justice, and health care, had all become necessary because of the gold rush of 1858, subsequent gold mining ventures, and the influx of population they brought. The businessmen who purchased Pitt Meadows land had first become rich by selling supplies and providing services to miners, they were hotel keepers, suppliers of food and mining equipment, and owners of river boats. The wealth of the mines flowed through such people and was invested in Pitt Meadows land, as it was invested in other lands in British Columbia, not in its use but in its ownership.

Evidence gathered by Cail suggests the extent of land speculation in the province during the latter part of the period of land alienation at Pitt Meadows.⁵³ Since a person obtaining land under a settlement law could not get a Crown Grant unless he first obtained a certificate of improvement while an unconditional purchaser would not need a certificate, a comparison of the number of certificates with Crown Grants over a given period suggests

the proportions of land alienated for settlement and speculation. Cail tabulated the number of certificates of improvements and Crown Grants issued from 1873 to 1900. The table below uses his figures from 1873 to 1890 only, since this final date marks the end of the period of land alienation at Pitt Meadows.

Number of Certificates of Improvement issued. (Evidence of settlement)	Number of Crown Grants issued (Total land sales)	Percentage Settlement of total.
New Westminster District 639 (including Pitt Meadows)	1734	37%
For all B.C. 1517	4260	36%

These figures are somewhat unreliable indicators of the proportion of land alienated for settlement since they do not indicate the size of the lots purchased, and they exclude, from 1878 on, the lands in the dominion's Railway Belt, but they do indicate the general trend of land purchase in the province between settlers and speculators. Land alienation at Pitt Meadows fitted the provincial pattern. More of Pitt Meadows land was acquired by speculators than the provincial average because of the flood-prone nature of its land.

Pitt Meadows land speculation can be divided into two types, conditional and unconditional. The conditional speculation was that of the BCDD, who by the terms of their agreement with the

dominion government could not acquire title to their land until they had dyked it. The unconditional speculation includes the purchases of individual speculators. Yet such purchases were implicit promises to dyke the land. A speculator who bought Pitt Meadows land before it was dyked bought a piece of property that was worthless, since it would be flooded for several weeks each year. It was only the prospect of dyking which gave the land value, and the price the speculator paid, by setting a value on worthless land, was in effect a declaration of his intention to dyke it. Only by dyking could a speculator realize the worth of his investment.

The settler who alienated land at Pitt Meadows declared his intention to farm it. The speculator who alienated land declared, either explicitly or implicitly, his intention to reclaim it. While the speculator's role in settlement was indirect it was nonetheless important, to provide land suitable for settlement. The following chapter indicates how speculators fulfilled their role.

Chapter 3

Dyke Building

Private enterprise and government subsidy

The dyking of Pitt Meadows was begun in the early 1890's by the landowners, who were mainly speculators. They began reclamation programs, but lacked the financial resources to complete them. Their programs were taken over by the provincial government, which secured the money it invested as loans against the property benefited. When repayments on these loans, imposed as a dyking tax, became too great for the landowners to bear, the government forgave a substantial portion. This action brought the speculators of Pitt Meadows into the focus of political controversy. Both they and the government which aided them were strongly criticized by those who felt this action encouraged speculation.

The last two decades of the nineteenth century saw many attempts at dyking prairies in the Lower Fraser Valley, both by land companies and by groups of landowners. The first systematic attempt at dyking was begun in 1864 by Samuel Brighthouse, a farmer in the delta. He successfully dyked his farm and demonstrated that the alluvial soils of the Fraser were productive when reclaimed.¹ His results inspired others to follow, and many small dyking works were subsequently constructed about individual farms along the lower reaches of the river.² In 1878 a surveyor, Major C.B. Sword, drew up the first large-scale plans for dyking the valley grasslands. He planned to reclaim Matsqui Prairie, a region ten miles upstream from Pitt Meadows and comprising some ten

thousand acres. His dykes were built in the early 1880's, but failed in the freshet of 1882. The tack was not undertaken again until 1888, when the Matsqui Land Company was formed to try and reclaim this region. Its dykes failed consistently, and Matsqui Prairie was not successfully dyked until the provincial government took over the work in 1898.³

In 1888 another company was formed whose intent was to dyke large areas of Fraser Valley prairie. This was the British Columbia Drainage and Dyking Company (BCDD), formed by three pioneers of British Columbia, David Oppenheimer, Edward Mohun and A.W. Vowell, with the object of reclaiming large areas of Pitt Meadows. Oppenheimer was the leader of this group, and was particularly attracted by the speculative possibilities of Pitt Meadows. He planned to obtain land from the government as cheaply as possible, reclaim it, and sell it for a considerable profit. In 1892 he claimed that Pitt Meadows lands "will readily bring \$100 an acre when protected from annual floods."⁴ Since at that date his company had acquired the land for \$5.75 an acre, the incentive for his speculation can readily be seen.

Why was Pitt Meadows selected by Oppenheimer and his associates for speculation ahead of other prairies in the Lower Fraser Valley? There are several answers to this question. Pitt Meadows was near to the population centres of New Westminster and Vancouver; it was believed to be potential fertile farmland; it was crossed by the recently-completed CPR; it contained vast stretches of unalienated and unreclaimed land; and it was thought by Oppenheimer et al to be easily reclaimable. At least they had no reason to think other-

wise, since at the time they began their venture no land at Pitt Meadows had been dyked. Yet a consideration of the difficulties experienced in dyking Matsqui Prairie, which had begun ten years before, might have given them pause. However, the late 1880's and early 1890's was not a time for pause but a time for expansion in the Lower Fraser Valley, and this expansion gave a mood of optimism to land speculators. The transcontinental railway had recently been completed (1885) and extended to the port of Vancouver (1886). This city was rapidly being developed as a major port, and its population was rising rapidly.⁵ The people of the burgeoning city needed food, but the surrounding rocky hillsides were covered with great forests and were unsuitable for farming. A short distance away, about one-half hour's journey by the new railway, were the extensive prairies of Pitt Meadows, which still contained about 17,000 acres of Crown land. All that was needed to turn this land into rich farmland, Oppenheimer thought, was to dyke and drain it.⁶ He and his associates thought the speculative possibilities of the situation at Pitt Meadows were most favorable.

The leader of the group, David Oppenheimer, had come to British Columbia with the gold rush in 1858. He arrived with his three brothers, all young men looking for wealth and adventure in a new land. The four had been born in Germany, and had been first attracted to North America by the California gold rush of 1849. In 1858 they had travelled north with thousands of others, and set themselves up in business at Yale supplying gold miners with the necessities of life at the point of their departure on the overland route to the Cariboo. When the CPR was being built the Oppenheimers again looked for opportunities to profit from a new venture. Before the

railway company announced its intention to extend its line from Port Moody to the site of Vancouver David, with his brother Isaac, formed a syndicate to purchase the Hastings Sawmill Company, which owned extensive tracts in the area that was to become downtown Vancouver. When the CPR began developing Vancouver harbor as its western terminus in 1886 David Oppenheimer set up a grocery store there. He rapidly became involved in the leadership of other enterprises, among them the Vancouver Street Railway and Light Company, the Westminster and Vancouver Tramway Company, the British Columbia Sugar Refining Company, and the Vancouver Shipbuilding, Sealing and Trading Company. In 1887 he was elected an alderman for the new city of Vancouver, and the following year was elected mayor. He was re-elected four times until 1892, when he retired. He died in 1896.⁷ The other two founders of the BCDD were less distinguished, but also played a role in the development of the province. Edward Mohun was a surveyor and had carried out many of the early surveys in British Columbia, including lands at Pitt Meadows. He had also surveyed some of the line of the CPR.⁸ Arthur W. Vowell had served as a gold commissioner and magistrate in the Kootenay and Cassiar districts of British Columbia in the 1860's, '70's, and '80's. He was elected to the provincial legislature in 1875, but resigned in 1876. About the turn of the century he served the dominion government as Indian commissioner for the province.⁹

In January of 1888 Oppenheimer, Mohun and Vowell decided to try to obtain the vacant Crown land at Pitt Meadows. These lands had been included in the dominion's Railway Belt, and Crown grants for it had to be obtained from Ottawa. Edward Mohun was chosen as the

group's emissary, and went to Ottawa in February 1888. He was successful in obtaining from the dominion government an order-in-council granting the group the lands they requested at \$5.75 an acre, payable when dyked.¹⁰ These lands are marked on the following map, number 3-1, as holdings of the British Columbia Drainage and Dyking Company.

The three promoters formed a company to carry out the work of dyking and draining their concession, and obtained the consent of the dominion government to transfer their rights and obligations to it. This company, the BCDD, by its charter, claimed two-fifths of the land it owned for the promoters, the remaining three-fifths was to belong to the shareholders in proportion to their shares.¹¹ In 1890 the company offered one thousand shares to the public at one hundred dollars each. Only four hundred and seventy-six were taken up. Oppenheimer bought forty-five and became the major shareholder and president of the company. Many others who bought shares were speculators who already held land at Pitt Meadows and saw in the proposed reclamation work of the BCDD a way to increase the value of these holdings.¹²


The BCDD had raised less than one-half of its hoped-for share capital, which indicates a measure of caution among speculators concerning a scheme which had only an indirect connection with the growth of Canada's western port. With such limited funds the company could not begin to dyke all of the 17,000 acres it had been granted. Instead, it embarked in 1891 on a limited scheme to dyke two pieces of land that were part of its grant in the vicinity of the Lillooet Rivers. These pieces were of slightly more than

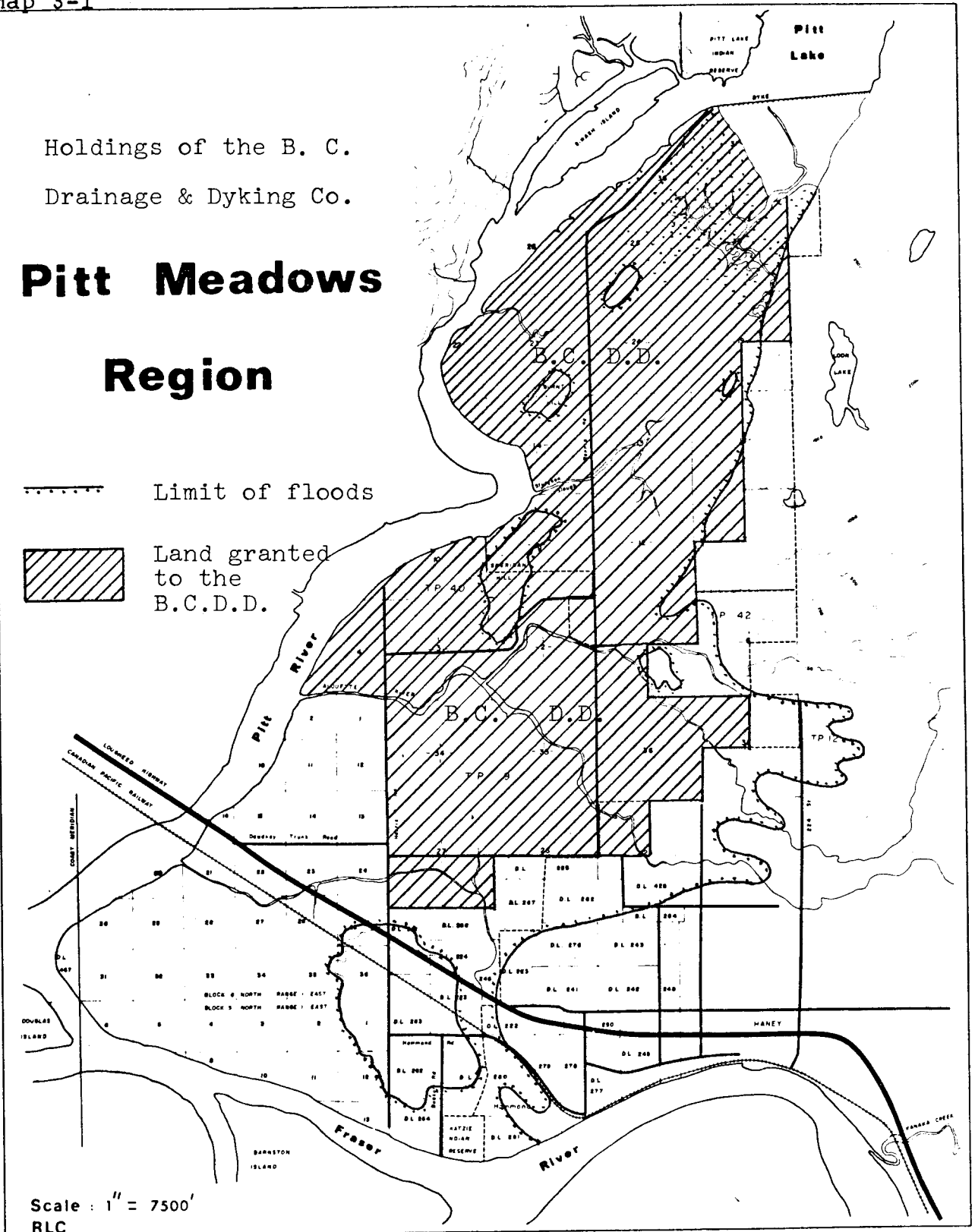
Map 3-1

Holdings of the B. C.
Drainage & Dyking Co.

Pitt Meadows Region

----- Limit of floods

 Land granted to the B.C.D.D.



Scale : 1" = 7500'
RLC

Sources: Tax Records, District of New Westminster, P.A.B.C.

Dominion Fiat Number 51222, in the Department of Lands,
Victoria, B.C.

one thousand acres each, and are marked on map number 3-2 as Pitt Meadows Number 1 and Number 2 Dyking Districts.

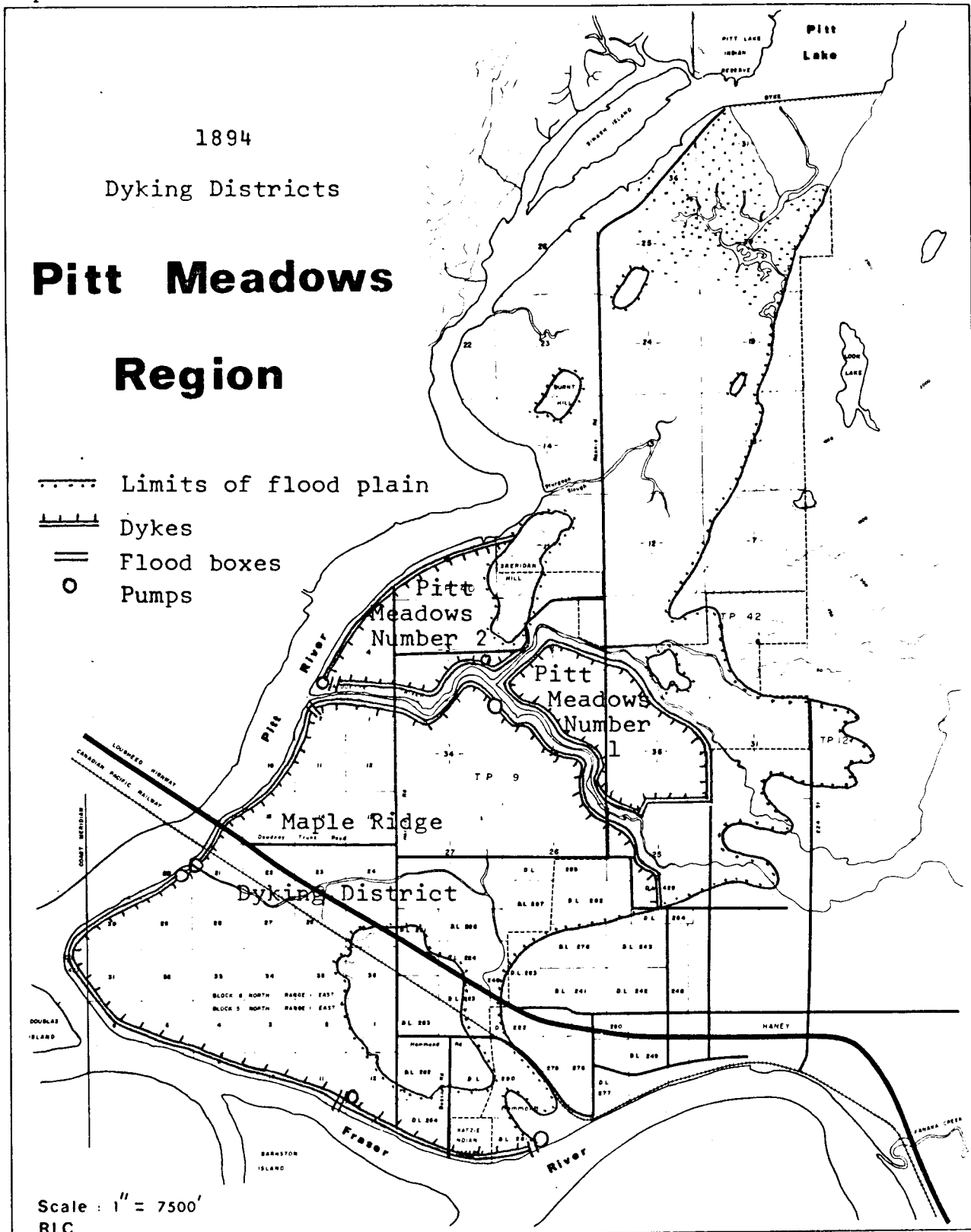
This first scheme to dyke Pitt Meadows began in 1891 on a very uncertain financial footing . It was made by speculators who were looking for the largest possible return from the smallest possible investment. The difficulties of dyking and draining the region were imperfectly understood, the projected expenditures grossly underestimated. In all these aspects the BCDD set a pattern which subsequent attempts to dyke other regions of Pitt Meadows were to follow.

Techniques of Dyke Building

The shortage of funds available to the BCDD, and the type of equipment possessed by their contractor, resulted in their dykes being built to a very poor design. The structures were weak, difficult to maintain, subject to erosion both from the river's current and from rodents, and of insufficient height. They were the best that their funds and the contractor's equipment could provide, but subsequent events were to show that they were inadequate.

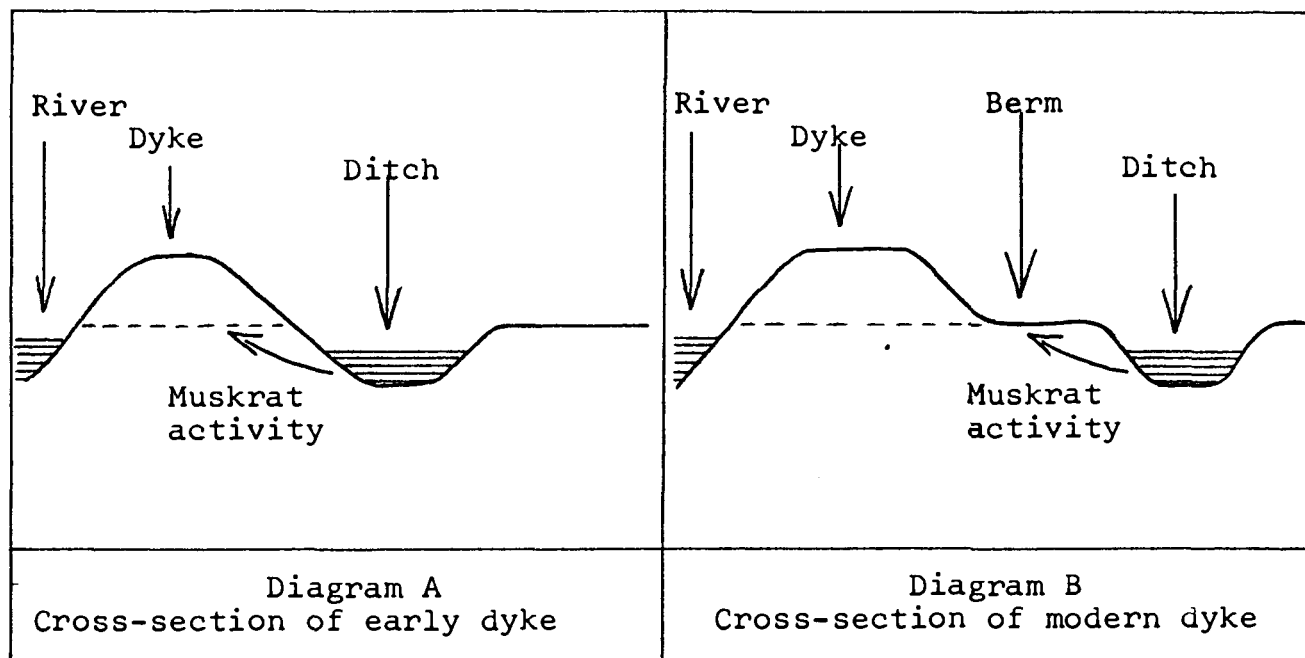
The BCDD dykes were built by one of its shareholders, the Western Dredging Company, by means of a floating dredge. This machine obtained material for the dyke by digging a borrow-pit in the form of a ditch directly behind the dyke. As this ditch was dug out it filled with water, and on this the dredge floated. It piled the earth it extracted between the ditch and the river to form the dyke. 13

Map 3-2



Source: Map to accompany "Reconnaissance Report of Reclamation Works in the Lower Mainland", 1953, British Columbia Department of Lands, Forests, and Water Resources.

The previous highest flood level in the Lower Fraser Valley had occurred in 1882, and the dykes of the BCDD were built two feet above the high water mark of that year. This mark was to prove inadequate for the high water of 1894, the year that the dykes were finished. Other inadequacies of the BCDD dykes can be seen by referring to diagram A below and comparing it with diagram B.



The dykes of the BCDD, along with other dykes built in the same period, were constructed as in diagram A. The lack of a gap or "berm" between the dyke and the ditch both weakened the resistance of the dyke to water pressure from the river, and permitted beaver and muskrat inhabiting the ditch to weaken the dyke by nesting in it. The advantage of dyke A over dyke B was that it was cheaper to build. The BCDD dykes were also constructed in this manner because the dredge used by the Western Dredging Company (its contractors) did not have a "dipper stick" of sufficient length to permit the leaving of a berm between ditch and dyke. 14

The dykes rose from the floor of the meadows with slopes thirty degrees from the horizontal to tops six feet wide. This width was thought to be adequate to resist the pressure of water from one side during a flood. However, the tops were too narrow to provide a roadway for carts, and when emergency repairs became necessary what could have been an important access route for repair material was not available.

Dykes require extensive and constant maintenance. Every spring it is necessary to patrol carefully to check for muskrat and beaver nests, and where these are spotted they must be dug out and the dyke repaired. In 1945 the provincial inspector of dykes reported that in the Pitt Meadows region there were seven hundred such nests to be dug out each year.¹⁵ Dykes also had to be patrolled to check for erosion on their faces, or for spots where they settled below the required height. Where these conditions occurred they had to be corrected.

Drainage of land behind dykes is also a major and constant expense. Reclaimed land must be kept dry by a network of drainage ditches, and these will silt up or become clogged with vegetation unless frequently maintained. Water from these ditches is released into the river by two methods, flood boxes or pumps. Flood boxes are swinging waterproof gates which open when the river level drops below the water level of the ditches within the dykes, and close as the river rises. In periods of high rainfall or when the river level remains high for extended periods, this system of releasing water is not sufficient, and water must be taken from the dyked areas by pumps. The first pumps were operated by steam engines

fired by coal. Such engines would require an operator each when in use, besides regular maintenance at other times. It was not until 1912 that they were replaced by electrically-operated pumps.¹⁶ The installation of these cut operator and maintenance costs, but they were a major capital item, and are heavy users of electricity.

The capital expenses of dyking and drainage, even of the inadequate works of the BCDD and other Pitt Meadows landowners in the early 1890's, were far greater than those involved in these ventures planned. The only way that the projects were completed was by massive borrowing of funds, backed by government guarantees. It was a bitter stroke of fortune for the dyke-builders that, in the year their programs were completed their dykes were put to the severest test. The freshet of 1894 was the highest ever and topped and breached the dykes of the BCDD, other dykes in Pitt Meadows, and dykes throughout the valley. Such an event emphasized the inadequacy of structures the building of which had seriously indebted the owners of the land they were intended to protect.

The Maple Ridge Dyking District

In 1890 the formation and activities of the BCDD acted as a spur to the dyking intentions of landowners in southern Pitt Meadows. When the company began work on its dykes these landowners waited no longer. They met under the leadership of Wellington Jeffers Harris, a major farmer and landowner of the region, and resolved to dyke their lands.

W.J. Harris had come to Pitt Meadows in 1874 and bought two adjoining blocks (lots 223 and 283) containing over three hundred acres. Much of this was on the central highland of south Pitt Meadows, but he also held some acreage on the flood plain. He was from Ingersoll, Ontario, famous for its cheese. Harris had evidently learned the skill of making this commodity, for his pioneer farm at Pitt Meadows became famous for cheese, which the BC Directory of 1883 rated as the best in the province.¹⁷ He had been advised to go west by Simon Fraser, who lived in St. Andrews, a town near Ingersoll. The venerable explorer recounted to the young Harris the tale of his exploration down the Fraser in 1808, recalled the spreading meadows of the lower valley, and advised the young man to settle on them, choosing if possible land on the route of the projected transcontinental railway. Harris proved to be an enterprising person with a shrewd sense for selecting good opportunities. The lots he purchased in 1874 both lay on the line the CPR built on ten years later. His land was also ideally suited for dairy farming, having plentiful pasture on its lower parts, and being sandy and dry on its higher portions. Here Harris ran a herd of between twenty and thirty cattle, and developed his cheese factory.

Only a few other landowners at Pitt Meadows were farmers. These included the Cook brothers, whose section was just to the west of Harris' farm, and the Callaghan brothers who farmed directly south. Other lots on the fringes of the meadows and partly on Maple Ridge were farmed in a desultory manner.¹⁸ The rest of the lands at Pitt Meadows before dyking were owned by speculators.

Some of these were local farmers. One was Harris himself, who certainly did not need three hundred acres to graze thirty cows, and who in 1890 bought two additional lots to double his holdings.

The map numbered 3-3, of South Pitt Meadows, indicates the landowners in the projected Maple Ridge Dyking District in the early 1890's. The list of landowners which follows (table 3-1) indicates the addresses and occupations of these landowners, and clearly indicates that most of them fit at least one of the criterion described above (in chapter 1) for indicating the status of speculator. Most of them did not live at Pitt Meadows, their sources of income were generally unrelated to their landholdings, and some of those who lived at Pitt Meadows owned more land than they could farm. The table indicates that about eighty-two per cent of the land in the projected dyking district was held for speculation.

The group of landowners who met in the early 1890's to dyke south Pitt Meadows were not hardy pioneers struggling to save their crops and livestock from flood, but speculators seeking to increase the worth of their investment. They were, generally speaking, absentee owners who had bought land that was worthless until reclaimed. When their properties were dyked and drained they hoped to make a considerable profit selling it to others, either settlers or speculators like themselves.

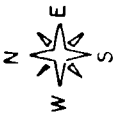
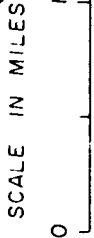
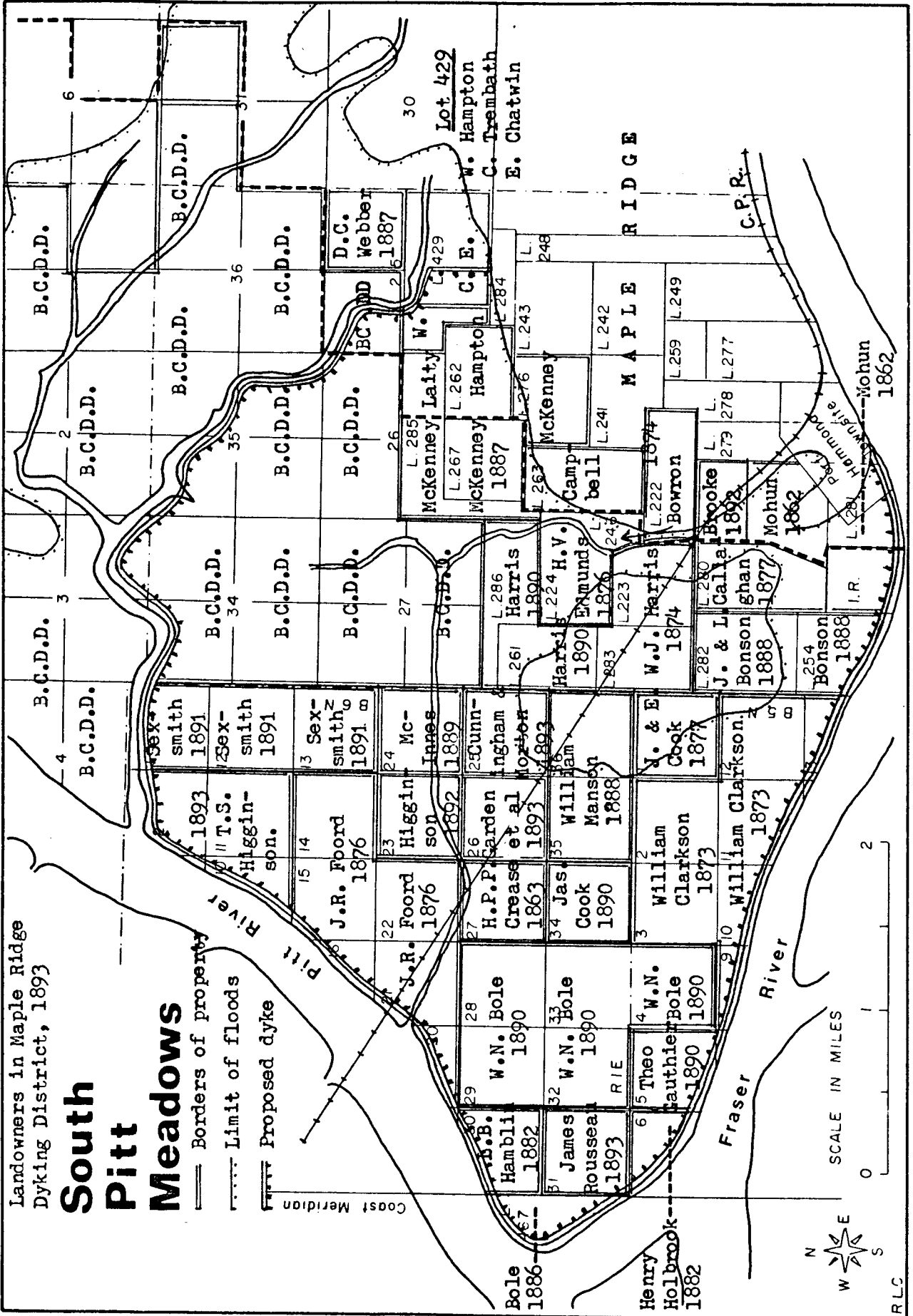
The landowners of south Pitt Meadows had a well-established legal framework within which to carry out a program to dyke their prop-

Landowners in Maple Ridge
Dyking District, 1893

South Pitt Meadows

- Borders of property
- Limit of floods
- - - Proposed dyke

Coast Meridian



RLC

Notes on Map 3-3: "Landowners in the Maple Ridge Dyking District,
1893, South Pitt Meadows"

1. The dates under the landowners' names indicate the year in which the person named bought the land.

2. Map sources:

- A. "Plan of a part of Township 9, New Westminster District, shewing (sic) High Water Mark of 1882, the Location of the Proposed Dyke, and Area to be Reclaimed."

This map was prepared by the Dyking Commissioners of the Maple Ridge Dyking District in 1893. It is signed by the Commissioners, W.J. Harris, William Manson, and Charles E. Woods, and is also signed by the dyking contractors, the MacLean Brothers (owners of Western Dredging Company).

The map was drawn by Garden, Hermon and Burwell, surveyors, of Vancouver, B.C., who happened to own a section in the district, B6NR1E, sec. 26.

This map is in the Provincial Archives of British Columbia, Victoria, B.C.

- B. Map of Dyking Districts in the Lower Fraser Valley, in "Reconnaissance Report of the Reclamation Works in the Lower Mainland, 1953." This report is in the files of the Inspector of Dykes, New Westminster, B.C.

3. Other sources:

- A. Tax Assessment Rolls, Municipality of Maple Ridge, for 1893, while dates of purchase were ascertained from these tax rolls for previous years.
- C. Registers of Absolute Fees, Provincial Land Registry Office, New Westminster, B.C.
- C. Registers of Crown Grants, Department of Lands, Victoria.

Table 3-1

Landowners in the Maple Ridge Dyking District, 1893

Name	Address and Occupation	Location of Property	Acreage on Flood Plain	Farm or Spec
W.N. Bole	New Westminster Supreme Court Judge	Lot 467 B5NR1E sec. 4 B6NR1E, 28, 29, 32, 33	859	Spec
Jemina Bonson (Mrs)	Pitt Meadows Wife of contractor	Lots 254 & 282	191	Farm
John Bowron	Barkerville Gold miner	Lots 222 & 246	94	Spec
BCDD	Vancouver Land company	Tp. 9, secs. 25NW, 26N, 27, 34, 35NW & S.	2032	Spec
R.C. Brooke	Hammond, farmer	N. pt. lot 280	45	Farm
J. & D. Callaghan	Pitt Meadows Farmers	W. pt. lot 280	101	Farm
Pheobe Campbell	Upper Sumas	Lot 263	69	Spec
William Clarkson	New Westminster Hotel keeper	B5NR1E, secs. 2, 3, 9, 10, 11, 12, 13	753	Spec
Jas. & Edward Cook	Pitt Meadows Farmers	B5NR1E, sec. 1 B6NR1E, sec. 34	44 158	Farm Spec
H.P.P. Crease	Victoria, Judge	B6NR1E, sec 27	157	Spec
Cunningham & Morton	New Westminster	B6NR1E, sec 25	138	Spec
Henry V. Edmunds	New Westminster Realtor	Lot 224	123	Spec
J.R. Foord	Rochester, England	B6NR1E, secs. 14, 15, 16, 20, 21, 22	664	Spec
Garden, Hermon, Burwell	Vancouver, surveyors	B6NR1E, sec. 26	150	Spec
Theophilus Gauthier	Hammond	B5NR1E, sec 5	134	Spec
L.R. Hamblin	Victoria	B6NR1E, sec 30	135	Spec
William Hampton & John Trembath	Hammond Farmers	Lot 262 E. pt & pt. lot 429	173	Farm
W.J. Harris	Pitt Meadows Farmer	Lots 223, 283, 261 & 286	60 245	Farm Spec
T.S. Higginson	New Westminster	B6NR1E, secs. 2, 10, 11, 23	454	Spec
Henry Holbrook	N. West., Merchant	B5NR1E, sec. 6	58	Spec
W.H. Keary		Lot 262, W. pt.	104	Spec
John Laity	Maple Ridge, farmer	Lot 285, E. pt.	83	Farm
William Manson	New Westminster	B6NR1E, secs 35 & 36	194	Spec
T.R. McInnes	Victoria Physician	B6NR1E, sec. 24	158	Spec
John MacKenney	Hammond, farmer and hotel keeper	Lots 285 W. pt., & 267 and 276	240 21	Spec Farm
Emmeline Mohun (Mrs)	Hammond Farmer	Lot 280, SE pt., and lot 281	52 129	Spec Farm
James Rousseau	New Westminster	B6NR1E, sec. 31	155	Spec
J.W. Sexsmith	Vancouver	B6NR1E, secs. 1, 12 and 13	443	Spec

Final column indicates whether land is held for speculation (Spec) or used as farmland (Farm). Speculation totals 7444 acres (90%), farming 847 a. (10%)

Sources: Tax Records, Municipality of Maple Ridge, B.C.

Amount of property, on flood plain from "Map of Part of Township 9 in the New Westminster District shewing High Water Mark of 1882"

erties. The first parliament of the province, at its second session in 1873, had passed an act to assist local areas to dyke land subject to flood.¹⁹ This act, the Drainage, Dyking, and Irrigation Act, was intended primarily to help farmers dyke their lands in the tidal zone of the Fraser delta, but the machinery established by it could be used to dyke any region subject to flood. The act provided that "two thirds in interest of the proprietors of any marsh, swamp or meadowlands may ... select one or more Commissioners to carry on any work for reclaiming such lands by drainage, dyking, or irrigation."²⁰ The Commissioners had power to levy taxes on dyked lands to recover the cost of dyke building and drainage works.²¹ They were also given the power to require owners of dyked lands to provide assistance to build and repair dykes.²² The government was authorized to guarantee interest on two-thirds of the money raised. If landowners defaulted with debt payments the government was authorized to levy and collect taxes to pay the costs of reclamation.²³ Subsequent amendments to this act in 1881, 1882, and 1892, strengthened the power of the commissioners to appropriate land and make contracts for dyking and drainage works.²⁴

With such helpful legal machinery to assist them it is surprising that the landowners of south Pitt Meadows did not at first make use of it. Instead they tried to persuade their municipal government to build the dykes they needed. Harris, the leader of the dyking group, had been active in local government since he arrived in Pitt Meadows.²⁵ He knew the ways of local government, knew the people, and perhaps for these reasons led his group first to seek dykes from their municipality rather than working under the provisions of the Dyking Act.

Harris prepared a petition, which was signed by the vast majority of Pitt Meadows landowners, requesting the municipal council to hire an engineer to survey the lowlands of the region and prepare plans for dyking it.²⁶ David Oppenheimer, president of the BCDD, which was the largest landholder in south Pitt Meadows (with over 2,000 acres), was enthusiastic in his support of the scheme. On March 7, 1891, a delegation of south Pitt Meadows landowners headed by Harris and Oppenheimer presented the petition to their municipal council. At this time Pitt Meadows was a part of the municipality of Maple Ridge.²⁷ The vast majority of the population of this municipality lived above flood level, and had little interest in the problems of the lowland owners, few of whom actually lived on their property. Yet the Pitt Meadows delegation was sympathetically received. Council suspended regular business to hear them. Harris was the principal spokesman, and was at pains to point out that the cost of the dyking survey would be born by the lowland property owners through increased taxation, and that no loss would be incurred by the municipality in general. He was only asking that the council act as agents for the Pitt Meadows landowners. Following his presentation the council voted to "comply with the petition of the Pitt Meadows landowners."²⁸

The municipal council seems to have been somewhat overwhelmed by the high-powered delegation led by the mayor of Vancouver and one of their own ex-mayors, but when the petitioners had left they had sober second thoughts. The high land residents of Maple Ridge had no intention of getting involved financially in dyking the lowlands, and neither had the council on which they held the majority of seats. The same council meeting which had voted to

"comply with the petition of the Pitt Meadows' landowners" later, when the petitioners had left, voted "that the petition of the Pitt Meadows landowners be received and placed on file."²⁹ Despite the protestation of W.J. Harris that the cost of dyking would be born by the landowners benefitted, the municipal council was afraid that part of the cost might come to be born by all taxpayers. If debts incurred by dyking were greater than the dyked lands could bear, then the whole municipality would be saddled with a most unwelcome burden.

At their next monthly meeting, April 4, 1891, the Maple Ridge Council took a firm stand against dyking Pitt Meadows. They moved "that this council ... have nothing to do with the dyking of Pitt Meadows." The motion was one of contention, but finally passed by three votes to two, with the names of those voting yea and nay recorded, a most unusual procedure.³⁰ This motion had two main consequences; it caused Pitt Meadows landowners to be disenchanted with their inclusion in Maple Ridge municipality and to seek to leave it, and it caused them to turn to the provincial Dyking Act and to build the dykes they needed under its provisions.

In 1892 Pitt Meadows landowners formed a dyking district and requested the provincial government to appoint commissioners to dyke their district under the terms of the Dyking Act. The government appointed two local landowners, Harris and a William Manson, and a civil engineer named Charles Woods.³¹ These commissioners planned the great dyke that loops around southern Pitt

Meadows along the banks of three rivers, the Fraser, the Pitt, and the Lillooet. The area within the dyke, with the exception of the central highland, was called the Maple Ridge Dyking District. The name was chosen to avoid confusion with Pitt Meadows Dyking Districts number 1 and 2 and not, it is supposed, from any great affection the Pitt Meadows' landowners felt for the municipality which had refused them help.

The dyke-building program began in the summer of 1893. The dyke planned was 14.3 miles long, and protected an area of 9,600 acres. The cost of dyking and drainage was estimated at \$85,000.³² The dyke was built by the Western Dredging Company, the same company which had built the dykes for the BCDD. The dykes were built in the same manner as those of the BCDD, and to the same height, two feet above the level of the 1882 flood. Western Dredging's contract called for completion by the end of 1894, but by March the work was so far advanced that the commissioners hoped to be able to keep out the freshet of that year. However, the 1894 freshet was an all-time high and the Maple Ridge dyke met the same fate as those of the BCDD.

Results of the 1894 flood

The freshet of 1894 broke the dykes at Pitt Meadows and flooded the land as if they had never been built. Farmers throughout the Fraser Valley suffered from these floods, but it is doubtful if anyone at Pitt Meadows suffered at all. Most of the land was owned by absentee speculators, and those farmers who did own low-lying land also had land above flood level on which they

had built their houses and barns, and which was of sufficient acreage to hold all their livestock during the freshet. Since these farmers had not previously had their lands dyked, their farming methods were adapted to the annual floodings.

While the 1894 flood did not affect Pitt Meadows landowners so far as economic activities taking place on their properties was concerned, it plainly foretold far greater expenditures for dyking than had been anticipated. Dykes would have to be heightened and strengthened, and breaches caused by the floods would have to be repaired. Both the BCDD and the Maple Ridge Dyking District (MRDD) decided to rebuild their dykes to a new height, two feet above the level of the 1894 flood. The design of the dykes was not improved and the weaknesses of the original structures remained, except that they were to be higher. The financial situation of both dyking groups did not permit them to follow any other course, in fact even the limited objective they now set themselves was to lead to permanent bankruptcy.

Both the company and the commissioners went heavily into debt to continue their dyking programs. The Dyking Act of 1894 assisted them to borrow by providing government guarantees of four per cent of the interest on loans. The government, in the same act, also insisted that dyking districts be organized under commissioners in order to establish a measure of individual leadership and responsibility for these programs. The MRDD was already organized in this manner, but the districts of the BCDD were not. The company appointed three of its major shareholders, David Oppenheimer, J.F. Garden, and J.W. Sexsmith, as commissioners. If the government

hoped that this reorganization would cause dyke-building costs to come within estimated limits they were to be disappointed. Dyking districts at Pitt Meadows and throughout the valley continued to plunge deeper into the red.

As the financial position of dyking districts worsened it became increasingly difficult for them to borrow needed funds. In 1897 the provincial government moved to assist them. The Dyking Debentures Loan Act of that year authorized the government to sell debentures for specified amounts for the various districts at six per cent, of which the province would guarantee two thirds.³⁴ The amount specified for the BCDD's districts was \$60,000 and for the MRDD \$126,000. These amounts were intended to pay off previous debts and cover the cost of on-going works. While this act helped dyking commissioners get the money they needed it did nothing to limit expenditures on dykes, which continued to rise beyond projected estimates.

The following year the provincial government moved to protect its investment in dykes by assuming control of the total dyke-building program in the Lower Fraser Valley. This move was prompted by the rapidly increasing indebtedness of these districts. The BCDD, which had begun in 1891 with a share capital of \$47,600 had, by 1898, debts which approached \$80,000.³⁵ The MRDD had begun two years later (in 1893) with estimated expenditures of \$85,000, and by 1898 its debts totalled over \$185,000.³⁶ Much work in both groups' districts remained to be done. The situation in other valley districts was similar. The government took control by the Public Dyking Act of 1898.³⁷ This act replaced local dyking commissioners by a provin-

cially-appointed Inspector of Dykes who was to have control over all valley dyking and drainage construction. The financing of these works was also to be controlled by government. The financial needs of dyking districts were to be met by the sale of debentures and these were to be repaid from a sinking fund financed by taxes on the dyked lands. Payments to the sinking fund would be set so that dyking costs would be paid off in forty years, with the interest rate set at three and one-half per cent. The long repayment period and low interest rate were designed to make taxes bearable for the landowners, and thus permit them to keep their land. They were, however, no longer to control the reclamation programs that secured their lands from flood.

Private enterprise had attempted to reclaim Pitt Meadows but had become bankrupt before it had completed its task. It had not lacked government support. The province had encouraged landowners to dyke their lands by permissive legislation, by guaranteeing interest on loans, and (in 1897) supplying funds itself. These steps proved insufficient to check the plunge into bankruptcy which the dyking districts were making. Private landowners, in attempting to reclaim their land, had plainly bitten off more than they could chew. Government intervened to take over the management of reclamation schemes while continuing to hold the landowners responsible for the costs, which were to be met as taxes on the land benefitted. While private control of dyking and drainage was abolished, private responsibility for paying the bills remained.

Government interest in reclamation schemes at Pitt Meadows and throughout the Lower Fraser Valley can be explained by many factors.

Its initial interest was no doubt prompted by the need to create farmland in a province where it was in short supply. As reclamation schemes developed it came to have a considerable investment in them through its interest guarantees on loans. It also had an interest in protecting the interests of landowners, both as important individuals in the province who likely carried weight in its decisions, and as examples of pioneers whose endeavors to reclaim land from the wilderness were the demonstration of a frontier myth. While the landowners of Pitt Meadows were hardly hardy pioneers, they were reclaiming land from the wilderness, and thus were pioneers of a sort, even if of a speculative sort. The reclaiming of land was in fact the building of the province itself, and a provincial government could scarcely let such programs fail when it had the power to rescue them.

The Dyking Assessments Adjustments Act

In spite of government control dyking costs continued to rise above projected expenditures, and the taxes to pay for these became an increasingly heavy burden. In 1904 there was a wholesale failure of dyked-land owners to pay dyking taxes, and the government was forced to reassess the indebtedness of these lands.³⁸ It calculated the debt of all dyking districts in the Lower Fraser Valley at 1st November, 1904. At that date the indebtedness of the MRDD was almost \$220,000, and the BCDD districts about \$89,000.³⁹ The government considered these debts too great for the districts to repay. Similar situations existed throughout the valley, and the solution to the problem was achieved by forgiving a large part of the dyking debt of each district.

The province forgave substantial portions of dyking debt through the provisions of the Dyking Assessments Adjustments Act of 1905.⁴⁰ The preamble of the act indicated that it had a twofold purpose:

In order that the Province may recover some portion of the moneys expended ... and the development of the districts may not be retarded, it is deemed advisable that the assessments imposed on the said lands should not be greater than the owners and occupiers thereof can pay.⁴¹

To achieve these purposes the act cancelled all dyking debts and replaced them with what it called a "capital charge", a far lesser amount calculated to be within the repayment abilities of the owners of dyked lands.⁴² The capital charge set for the Maple Ridge district was \$127,000, and for the BCDD's districts \$35,000, reductions of forty-three and sixty-one percent. These amounts were to be retired over forty years and bore interest at the rate of three and one-half percent. Since the terms of repayments were the same as previously existed, the effect of cutting the debt was to cut the repayments by the same proportion. It was the hope of the government that this relief would both enable landowners to develop their lands and that the province would be able to recover at least some of the moneys it had expended.

The passage of the Dyking Assessments Adjustments Act was the occasion for bitter public debate in the provincial legislature on the subject of land speculation. Opponents of the bill attacked it because it seemed to favor and encourage speculation. Their leader was John Oliver. Oliver was a farmer who had dyked his own

pioneer farm in the south delta region of the Fraser in the late nineteenth century.⁴³ After establishing his farm he went on to involve himself in provincial politics, and some years after the debate on the Dyking Assessments Adjustments Act he became premier of the province (1918 - 1927). He was a rugged individualist, and certainly did not favor the government aiding speculators. Most of the land at Pitt Meadows in 1905 was still owned by speculators as demonstrated on the following table (numbered 3-2). Thus government aid to dyked-land owners at Pitt Meadows was aid to speculators. This aspect of the bill did not sit well with John Oliver.

In his major speech against the bill Oliver claimed that its effect would be to make speculators a free gift of part of the cost of dyking their land. Since dyking had greatly appreciated the worth of these lands the government was in fact encouraging land speculation. Oliver mentioned several Pitt Meadows land speculators by name, including Judge W.N. Bole and Louis Bonson. Such people, he thundered, were being forgiven over half of what they had spent on dykes, while districts further up the valley with a far higher proportion of farmers than speculators were being forgiven far smaller amounts. He accused the government of discrimination against settlers in favor of speculators, and moved that it withdraw the bill and introduce a new one which would discriminate the other way.⁴⁴ Oliver was a powerful debater and built up a strong case against the government's action. Regretably some of his figures were in error. His major arithmetical mistake was to state that the bill reduced the indebtedness of the MRDD by sixty-five per cent when in fact the reduction was forty-three percent.⁴⁵ Yet despite these flaws, he made his point that the districts with

Table 3-2

Changes in Land Ownership, 1893 - 1905, Maple Ridge Dyking District

1893 owner	Location of property	1905 owner	Acreage on Flood Plain	Farm or Spec
W.N. Bole	Lot 467 B5NR1E, sec. 4	Same	859	Spec
Jemina Bonson (Mrs)	B6NR1E, 28, 29, 32, 33	Same	191	Farm
John Bowron	Lots 254 & 282	Same	94	Spec
BCDD	Lots 222 & 246	Same		
	Tp. 9, secs 25NW 26N, 27, 34, 35NW & S	Same	2032	Spec
R.C. Brooke	N. pt. lot 280	Same	45	Farm
J. & D. Callaghan	W. pt. lot 280	Same	101	Farm
Pheobe Campbell	Lot 263	Same	69	Spec
William Clarkson	B5NR1E, secs. 2, 3, 9, 10, 11, 12, 13.	Most sold to Harriet Ford	753	Spec
J. & E. Cook	B5NR1E, sec. 1 B6NR1E, sec. 34	Half to F. Lang F. Land, Hammond	44 158	Farm Spec
H.P.P. Crease	B6NR1E, sec. 27	Same (his estate)	157	Spec
Cunningham & Morton	B6NR1E, sec. 25	Subdivided	138	Spec
H.V. Edmunds	Lot 224	To son William	123	Spec
J.R. Foord	B6NR1E, sec. 14, 15, 16, 20, 21, 22.	Dr. T.S. Hall Robert Kennedy	664	Spec
Garden et al.	B6NR1E, sec. 26	$\frac{1}{2}$ same, $\frac{1}{2}$ Higginson	150	Spec
Theo Gauthier	B5NR1E, sec. 5	E & A Mortgage Co.*	134	Spec
L.B. Hamblin	B6NR1E, sec. 30	W.N. Bole	135	Spec
W. Hampton and J. Trembath	Lot 262 (pt) & Lot 429 (pt)	pt. to Pelly, pt. subdivided	173	Farm
W.J. Harris	Lots 223 and 283 Lots 261 and 286 Lot 286	Yorkshire Security Same Same	Corp. 20 89 156	Spec Farm Spec
T.S. Higginson	B6NR1E, secs 2, 10, 11, 23	Same (sec. 2) 10 & 11 to Rithet & Co. 23 to son.	454	Spec
Henry Holbrook	B5NR1E, sec. 6	Same (his estate)	58	Spec
W.H. Keary	Lot 262, W. pt.	W.H. Stoney, N. Van.	104	Spec
John Laity	Lot 285, E. pt.	Same	83	Farm
William Manson	B6NR1E, secs 35-36	J. Wilson, Vancouver	194	Spec
T.R. McInnes	B6NR1E, sec. 24	Same	158	Spec
John MacKenney	Lot 285 (W. pt.) lots 267 and 276	Subdivided	261	Farm
Emmeline Mohun (Mrs)	Lot 280 (SE pt.) and lot 281	Same	52 129	Spec Farm
James Rousseau	B6NR1E, sec. 31	United Trust Co.	155	Spec
J.W. Sexsmith	B6NR1E, secs. 1, 12 and 13	Sun Life Assurance Company.	443	Spec
Speculation 7260 acres (87%), Farming 1116 acres (13%)				

Principal Source for 1905 data: Tax Assessment Rolls, New Westminster District, 1905. P.A.B.C.

the highest proportion of speculators were to be forgiven the most, and the government subsequently amended the act in favor of the "farmer" districts.⁴⁶

Although it amended the bill to make a more equitable percentage reduction among dyking districts, the government had a case for greater reductions in "speculator" than "farmer" districts. Premier McBride pointed out that, under the reductions proposed by the bill (before it was amended), the annual payments in the "farmer" districts would be far less than in the "speculator" districts. For example, the annual payments per acre in the "farmer" district of Chilliwack (where the bill first proposed to reduce charges by thirteen percent) would be 79 cents, while in the "speculator" district of Maple Ridge (where costs were to drop forty-three percent) the payment would be \$1.40.⁴⁷ While the speculator would have the greatest percentage reduction, he would still pay a great deal more than the farmer for his dykes.

The response of the government provides a clue to the historic reason for speculation in some districts more than in others. The percentage reduction in the "speculator" districts was higher than in the "farmer" districts because the "speculator" district's debts were higher, and they were higher because these areas were more difficult to reclaim. The original cost projection for the reclamation of the MRDD was \$9.55 an acre, while at Chilliwack the projected cost was almost half this, at \$5.40.⁴⁸ The original projections had been far exceeded in all districts, but they had started higher and risen faster in "speculator" districts because there problems were greater. Pitt Meadows was an area with problems

of reclamation that other Fraser Valley areas did not have. In the delta, rugged individualists such as John Oliver could dyke their own lands because the floods were only one or two feet high.⁴⁹ Later delta farmers co-operated in joint enterprises of dyking which were cheaper than individual projects, far cheaper than projects further up the valley. Upstream from Pitt Meadows the compact nature of the lowlands made them appear to be reclaimable within reach of the farmer's pocket. But at Pitt Meadows three rivers ran together and flood levels were four feet or more above the level of the land. Before dyking began those who had acquired land there to farm had been driven off by floods and either sold out to speculators or become speculators themselves. The dyking districts on Pitt Meadows began as "speculator" districts because of extreme flood levels, and stayed "speculator" districts because dyking charges were prohibitively high for farmers. An economically-viable farm on Pitt Meadows would have to sell its produce at a price which would enable it to pay these charges. Since the provincial market was also open to farmers who raised produce on land unburdened with such costs these prices would be uncompetitive.

Why did the government in 1905 relieve the speculator at all? Why did it not, through some adjustment to the tax structure or outright grant help the dyked-lands farmer and let the speculator go to the wall? The premier gave two answers to that question. It was his intention to treat all landowners as equitably as possible. He rejected the idea that speculators in the dyked districts were undeserving of government support, contending that "they were men who, in days gone by, had manifested their faith in the country by investing largely in the lands of the Fraser Valley, and who,

through long and profitless years, had maintained their holdings and paid the taxes thereon."⁵⁰ His second answer was to consider the alternatives open to government. It could receive the land on reversion for unpaid taxes, or it could forgive some of the dyking debt so that the taxes were at least bearable. By making the first choice the government would have to assume all the burden of dyking costs, by making the second the government would receive some return at least for the moneys expended.

By this answer McBride indicated a government interest more in the land owner and a return on its investment than in creating farmland for the province. The basic reason for any government support of land reclamation was, presumably, the creation of farmland. In 1905 the government could have let the properties held for speculation at Pitt Meadows revert to the Crown for non-payment of dyking taxes, and then made them available for homesteads. Such a step would have ensured the swift development of Pitt Meadows as farmland. Yet it chose to put the interests of the landowners and the repayments of its debts ahead of its principal purpose. By this action the McBride government encouraged speculation, and the consequence was that the land continued to be held for speculation. Over eighty per cent of Pitt Meadows remained as speculative property for the next fifteen years, and speculative acreage did not drop below fifty per cent until the onset of the Depression a quarter of a century later. The effect of the government's decision was to ensure that, for a long period of its history, the fertile farmlands of Pitt Meadows lay unproductive.

The Demise of the British Columbia Drainage and Dyking Company

The Dyking Assessments Adjustments Act had forgiven the BCDD over sixty per cent of its dyking indebtedness.⁵¹ Its debt had been cut from almost \$89,000 to \$35,000. Yet despite this generous treatment the BCDD was in deep financial trouble towards the end of 1905. In the fall of that year the company found itself unable to pay taxes on its property, amounting to over \$3,000.⁵² In addition, the Department of the Interior in Ottawa advised that, unless it began dyking the 13,000 acres it held under option to purchase north of the Lillooet within sixty days (from November 29) it would lose all claim to this land.⁵³ The BCDD had held this land for fifteen years and had never had the resources to reclaim it. Certainly it was in no position to begin dyking in 1905.

At this time the BCDD's land must be considered in four parts. The largest part, the 13,000 acres north of the Lillooet, had not been reclaimed and would revert to the dominion in early 1906. The Pitt Meadows Dyking Districts numbered 1 and 2 had been reclaimed by the company. The company also owned some 2,000 acres south of the Lillooet, which had been included in the Maple Ridge Dyking District in 1893. Because of the company's shortage of cash the shareholders decided to sell the dyked lands in the two Pitt Meadows Dyking Districts. It placed advertisements in newspapers across Canada, describing these lands as the finest in the province.⁵⁴ When this bait brought a nibble from a prospective buyer the basis for comparison was widened, and they were described as "the finest in the world."⁵⁵ The dykes were described as "thoroughly flood proof." The company somewhat exaggerated

its descriptions of both lands and dykes. While the land in Dyking District Number 2 was of good quality, that in Number 1 was too poorly drained to provide good pasture.⁵⁶ As for the dykes, they needed constant maintenance to keep them flood proof, and the dykes around Number 1 district were to fail three times in subsequent years.⁵⁷

In spite of the wide publicity given to the sale, only two buyers came forward to make offers. The company accepted the higher one, from an R.J. Cameron of Vancouver, who offered \$14 an acre for the Number 2 district, and \$10 an acre for Number 1.⁵⁸ The amount offered was far from the \$100 an acre predicted by Oppenheimer in 1892, indeed was hardly enough to promise a profitable sale. The land had cost the company \$5.75 an acre, and was to be sold at an average price of \$12., an apparent profit of \$6.25. Land and dyking taxes seriously eroded this profit. During most of the fifteen years that the company had owned this land it had paid wild land tax at 5¢ an acre.⁵⁹ In addition, during the last eleven years it had made payments on its dyking debts, since 1898 in the form of dyking taxes. These had climbed to over a dollar an acre by 1905, when they had been cut by the Dyking Assessments Adjustments Act to around 70¢. Far from making a profit, it was doubtful if the company was doing any more than cutting its losses as best it could by this sale. All that could be said for it was, that by providing some ready cash, it would permit the company to pay its taxes and retain its lands in the Maple Ridge Dyking District. However, even in this limited endeavor, the BCDD was doomed to failure.

Cameron failed to complete his purchase, and the lands in the two dyking districts remained with the company. Faced with an impossible financial situation the BCDD decided to wind up its affairs. The land in the two Pitt Meadows dyking districts, plus the lands the company held in the Maple Ridge Dyking District, were divided up according to the company's charter. The promoters (or their estates) received two-fifths, the rest was split up among the shareholders in proportion to their shares. The lands the company held north of the Lillooet reverted to the dominion.³⁰

The BCDD underestimated the difficulties and expenses of dyking Pitt Meadows. It started off with insufficient money, built dykes that were not strong enough nor high enough, and had to borrow far more than its share capital after the 1894 flood to rebuild its dykes to higher specifications. While this work increased the value of the land dyked it did not increase it so much as it increased the expenses of the company. The reclamation cost more than the worth of the reclaimed land, and for this reason the BCDD failed.

However, the fact that the BCDD failed as a corporate enterprise does not detract from its dyking achievements. While many features of its history detract from its achievement; its undercapitalization, its ignorance of the difficulties of dyking Pitt Meadows, its inadequate dykes, its need of government financing, the government takeover of its work, and its failure as a corporate enterprise, yet the company played an important role in the reclamation of Pitt Meadows. Considering the peculiar attitude of the prov-

vincial government to land reclamation the role of the private initiator was crucial. The government's attitude towards reclamation was based on the myth of rugged individualism. It preferred that the rugged individual take the lead in reclaiming land, even if he appeared in the guise of a speculative land company like the BCDD. The provincial government was prepared to do all it could to assist him: providing permissive legislation, guaranteeing interest on loans, even providing loans from its own resources. Only when the enterprise of the pioneer was obviously bankrupt did the government step in to take control and to forgive debt. The government was prepared to help but it would not take the first step. The BCDD, by taking this first step, acted as a catalyst to begin a sequence of events by which the government became progressively more involved in reclamation. Its initiative was also important in that it prompted other landowners of Pitt Meadows to begin dyking in the southern part of the region, and as the largest landowner took the lead in beginning a similar chain of events which led to government involvement in the reclamation of the Maple Ridge Dyking District.

Chapter 4

Dyking History from 1905-1974

Federal and provincial governments assume responsibility

Between 1894 and 1905 land reclamation at Pitt Meadows had been taken over from private enterprise by the provincial government. Private enterprise continued to be responsible for the repayment of a proportion of dyking debts, and for dyke maintenance, while the province played the role of benevolent protector, supplying whatever money was necessary, and securing it as long-term loans against the lands benefitted. The province continued to play the role of benevolent protector alone until 1948, when another major flood occurred in the Lower Fraser Valley to equal that of 1894. The disasters caused by this second flood prompted the intervention of the federal government. Since then federal and provincial governments have assumed jointly the responsibility to secure Pitt Meadows and other valley lowlands from flood.

The Story of Dykes from 1905-1946

The Dyking Assessments Adjustments Act of 1905 gave the dyking districts throughout the Fraser Valley, including those at Pitt Meadows, a fresh start to conquer their indebtedness. However, the continued expenses of dyke maintenance and improvement, and the low prices dyked-land farmers received for their produce, combined to bring these districts to another stage of hopeless debt.

The dykes needed constant maintenance. Muskrat holes, as many as seven hundred in the Pitt Meadows dykes, had to be dug out each spring.¹ Trees that grew on the dykes had to be felled, otherwise when dykes became saturated during a prolonged flood they might fall, and their roots tear great holes in the embankment. During freshets the river washed against the base of the dykes, and in places eroded them. Such spots had to be filled with heavy rock to prevent further erosion. Drainage ditches had to be kept clear of vegetation and silt. Such items were a constant source of expense to dyking districts each year.

Yet it was not these minor items, but major items of repair and improvement which pushed the dyking districts deep into the red. In 1912 the original steam pumps were considered obsolete, and were replaced with electric pumps.² At the same time the flood boxes, which had badly deteriorated, were replaced. In the fall of 1922 a one hundred and twenty foot section of the Maple Ridge dyke facing the Lillooet River was washed out during a flash flood. The repair of this breach cost almost \$5,000.³ The same flood also broke the Pitt Meadows Number 1 dyke at two points. In 1938 two more electric pumps were purchased by the Maple Ridge Dyking District to lower the water table, in response to the wishes of local farmers. Besides the expense of purchase and installation, the operating costs of these pumps were very high. In 1946, for example, the electricity bill for the MRDD was over \$7,000.⁴



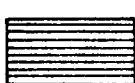
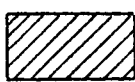
In 1923 the indebtedness of landowners in the lowest-lying parts of Pitt Meadows was greatly increased by the formation of the Maple Ridge Drainage District. This was formed when the majority of landowners on 5,460 low-lying acres petitioned for the creation of such a district to improve their drainage.⁵ This region is marked on the map "Drainage and Dyking Districts" (number 4-1) which follows. The province contributed \$24,637 for improved ditches and pumps, the municipality of Pitt Meadows contributed \$16,000 for roads and bridges. The municipal contribution was to be recovered through municipal taxes, the provincial contribution through drainage taxes. These varied according to the amount of drainage needed, from 10¢ to 40¢ an acre. Maintenance costs were added to these charges, and approximately doubled them.

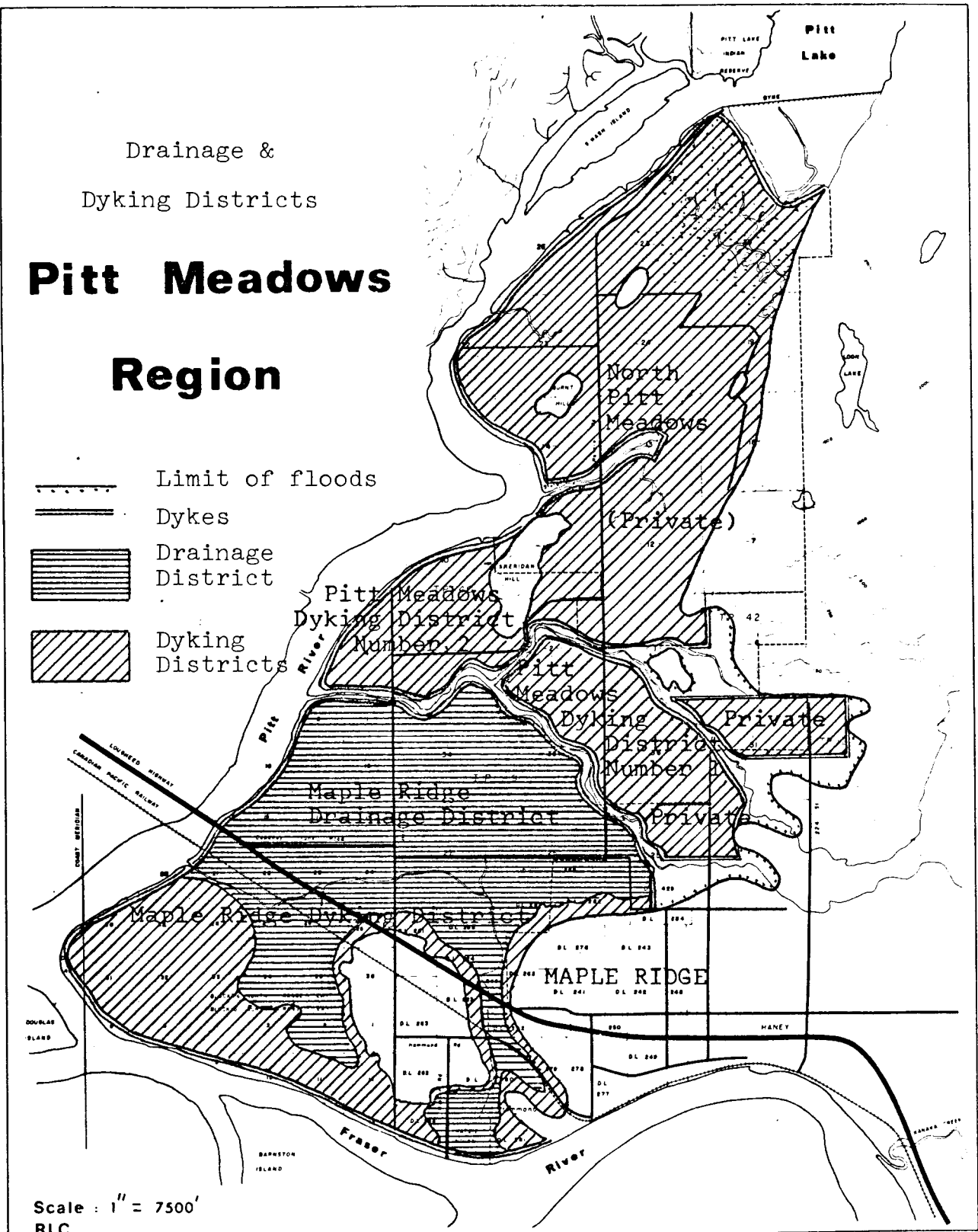
Besides the continued expense of dyking and drainage, the low prices dyked-land farmers received for their produce also contributed to their indebtedness. The Depression of the 1930's brought reduced food prices, including the prices of dairy products, the principal products of Pitt Meadows. The price of butterfat, a key indicator of dairy prices, fell from a high of 91¢ a pound immediately following World War 1 to less than 30¢ a pound in the mid-thirties.⁶ This drop cut deeply into farmers' incomes, and they had trouble paying municipal and dyking taxes. In 1933 the province took action to prevent a wholesale reversion of dyked lands to the Crown, both at Pitt Meadows and throughout the valley. It postponed the payment of dyking debt

Map 4-1

Drainage &
Dyking Districts

Pitt Meadows Region

-  Limit of floods
-  Dykes
-  Drainage District
-  Dyking Districts



Source: British Columbia Department of Lands and Forests, Water Rights Branch, "Reconnaissance of Reclamation Works in Lower Mainland", 1953.

for that year, and required the Inspector of Dykes to levy only sufficient tax to maintain reclamation structures.⁷ This act was repeated for the next twelve years, and it was not until the end of the Second World War that the province again attempted to collect payments on dyking debts.⁸ Debt payments for the drainage district were similarly postponed. Not only dyking and drainage districts suffered from declining markets during the Depression, and the government gave similar tax relief to other areas. In the Okanagan Valley the taxes the government had imposed to repay its investment in irrigation works were also postponed.⁹ The government's action on tax relief in the Fraser Valley was but part of a province-wide program to help farmers ride out the Depression. While it had some success in achieving this objective, it did nothing to remove the burden of debt from reclaimed lands. In fact the postponement of payments served to increase this burden as interest on unpaid loans accumulated. From 1905 to 1946 the indebtedness of the dyking districts at Pitt Meadows increased as follows:¹⁰

Dyking District	1905 Debt	1926 Debt	1946 Debt
Pitt Meadows Number 1	17,815		21,386
Pitt Meadows Number 2	17,053		18,140
Maple Ridge	127,396		211,388
Maple Ridge Drainage District		24,637	30,319

The benevolence of the government in postponing debt payments after 1932 helped most farmers at Pitt Meadows, but could not prevent some farms failing. In the MRDD and Pitt Meadows Number 2 about five per cent of the land had reverted the Crown by 1946. In Pitt Meadows Number 1 all the land had reverted.¹¹

The story of the Pitt Meadows Dyking District Number 1 is a story of failure in this period. The district had been reclaimed by the BCDD, and in 1906 had been sold in two separate parcels to investors from Seattle. In 1923 these parcels were both acquired by a Seattle development company, McDougal and Cameron, which spent \$8,700 on drainage and road building. This enterprise failed to sell the lands, which in 1931 reverted to the Crown.¹² From that date to 1952 the land remained for the most part with the Crown, although from time to time some determined person would try to farm some of it. The provincial inspector of dykes, Bruce Dixon, commented in 1946: "This land appears to be very inferior pasture."¹³ However, a map of soils of the region published by the Canadian Department of Agriculture in 1939 had indicated that the soils in Pitt Meadows Number 1 were no different from those elsewhere in Pitt Meadows.¹⁴ A report on the region, by a federal committee on agriculture in 1951, indicated a more precise reason why the land was "inferior pasture".¹⁵ It was waterlogged due to inferior drainage. This report noted that no internal drainage at all was provided in the district until the work of the development company in 1926, and then the work was skimped. "There would be no possible chance of successful settlement without lowering the watertable to ensure proper growth."¹⁶ Recent development in the area has

shown that, with a lowered watertable caused by good drainage, the lands at Pitt Meadows Number 1 are as good as any other land at Pitt Meadows.¹⁷

The northern part of Pitt Meadows, between the Lillooet (renamed Alouette) River and Pitt Lake, also has a story of reclamation failure in this period. The BCDD had obtained an option to purchase this property in 1890, but had failed to pick it up and the property had reverted to the Crown dominion in 1906. In 1909 this region was acquired on condition of reclamation by a Vancouver contractor, W.A. Ranie, by order in council of the Ottawa government, at a price of \$1.50 an acre.¹⁸ Ranie transferred his interest to a company, the Pitt Meadows Land Company, in 1913, which dyked the region but failed in its attempts to drain it.¹⁹ Drainage was exceptionally difficult in this area since some parts were flooded to depths of eight feet during ordinary freshets. The region reverted to the Crown again after the First World War. A Mennonite group tried to settle the region in the 1920's but were flooded out before they were well established.²⁰ In 1939 the region was acquired by Pitt Farms Development Limited, a company headed by a Vancouver real estate company president, Harry Fullerton.²¹ This company leased some parts of the region for rough grazing and sheep pasture, and claimed to have at least fifty acres under cultivation every year. The company was, however, in spite of its name, a gun club. The club's purpose in forming the company was to buy the lands of north Pitt Meadows for a duck shoot.²² It used the lands there for this purpose during the next ten years, until 1949.

In the period between 1905 and 1946 the four dyking districts of Pitt Meadows came to have quite distinctive histories. The Maple Ridge Dyking District (including the Drainage District) and Pitt Meadows Number 2 began to be settled and develop as farming regions within dykes that seemed to be secure. The Pitt Meadows Number 1 dyked area did not develop, principally because it was poorly drained, and after 1931 remained generally as Crown land. The northern part of Pitt Meadows became dyked, but was not well drained and did not develop as a farming region. It became used by a group of Vancouver businessmen as a shooting area.

The structure of the dykes in this period remained unaltered. The borrow pits remained as water-filled ditches, hard up against the backs of the dykes. This situation fostered continued muskrat activity. The dykes were only six feet wide on top, not of sufficient width to permit truck traffic for emergency repairs. The task of the Inspector of Dykes was limited to dyke maintenance and tax assessment and collection. He was anxious to build the dykes to higher standards, but the funds were not available. Each year he had to stretch the funds he had been able to raise as taxes to maintain the dykes as best he could.²³ The Depression, then the war, drastically curtailed funds. Fortunately, the Fraser River did not have any particularly high freshets during these years, so the danger from flooding was not acute.

The Clement Report

In 1946 the provincial government began, for the first time since 1932, to assess landowners for payments on dyking debts. Several factors influenced the government to reimpose these payments at

this time: farmers who had been serving in the war were returning and re-establishing their farms; much land that had reverted to the Crown during the Depression was being settled by discharged soldiers under the terms of the Veterans' Land Act;²⁴ and farm incomes generally were improving. Two indicators of this latter fact were the increase in butterfat prices, from a low of 29¢ a pound in 1932 to a 1945 level of 70¢ (plus a government subsidy), and the drop in tax arrears of municipalities such as Pitt Meadows with large proportions of dyked land.²⁵ In spite of these favorable signs that the dyked lands might be ready once again to make payments on their debts, the tax levy of 1946 was collected with great difficulty.²⁶ It became apparent that a new arrangement would have to be made to settle dyking debts.

The government responded to this situation in May of 1946 by appointing a royal commission to study and make recommendations on the financial situation of reclaimed areas. One commissioner was appointed, F.M. Clement, Dean of Agriculture at the University of British Columbia. His specific task was to determine how much each of the dyking districts (and also irrigation districts) could pay annually on its debt to the province.²⁷ In an analysis of dyking debts included in his 1946 Annual Report, Inspector of Dykes Bruce Dixon had estimated that annual debt charges, combined with maintenance costs and municipal taxes, for the settled areas of Pitt Meadows (i.e. Pitt Meadows Number

2 and the MRDD), would approach seven dollars an acre. He considered that it was "not an economic possibility" for these lands to pay so much.²⁸ His views held weight with the commissioner, who decided to recommend to the government that it reduce the annual payments made for dyking debts. He recommended that if dyking districts completely met their expenses for the year, and put some money aside for future major expenditures (into a fund he called the "Renewable Reserve"), they need only make a token payment on their debt. The government would then cancel the balance of the debt due for that year.²⁹ The government adopted these recommendations, and put them into effect with the Dyking Assessments Adjustments Act of 1947.³⁰ This act noted the total indebtedness of the dyking districts, amortized these over forty years, and authorized the treasury to write off a portion of the debts each year provided the three conditional payments were met, i.e. to maintenance, "Renewable Reserve", and the token payment. The functioning of this act for Pitt Meadows is detailed in the table below:³¹

Dyking and Drainage Assessments at Pitt Meadows, 1947					
District and Debt	Payment on Debt ("Token Payment")	Treasury Write-off	Payment to "Renewable Reserve"	Maintenance	Total Levy
<u>Maple Ridge Dyking District</u>					
218,867	1,200	4,412	2,400	10,378	13,978
<u>Pitt Meadows Number 1</u>					
21,779	nil	558	nil	1,150	1,150
<u>Pitt Meadows Number 2</u>					
21,629	100	455	400	5,095	5,595
<u>Maple Ridge Drainage District</u>					
30,148	200	573	300	1,511	2,011

Pitt Meadows Number 1 made no payments on debt or to reserve because almost all land in that district was owned by the Crown. The other districts at Pitt Meadows, however, all made token payments on their debts until these payments were cancelled in 1962.

A major disadvantage of the Clement's scheme for landowners was that the total of the payments they made as "Token Payment" and "Renewable Reserve" came close to being the total of the actual debt repayment. Thus the effect of this financial arrangement on dyking taxes was minimal. Tax rates per acre in the MRDD, for example, were \$2.38 in 1946 and \$2 in 1947, a drop of only 38¢. Taxes in the drainage district remained

the same, while at Pitt Meadows Number 2, where heavy expenses were incurred at this time, taxes rose sharply from \$3.23 per acre in 1946 to \$6.75 per acre in 1947.³² The new scheme may have been a sounder basis for financing since the "Renewable Reserve" accumulated money for future expenditures, but to those who paid the taxes the change must have seemed inconsequential.

The 1948 Flood

The indebtedness incurred by the building and rebuilding of reclamation works prior to 1948 was not sufficient to construct dykes that would stand the test of every freshet of the Fraser River. In 1948 the Fraser rose to heights not attained since 1894. The high waters broke dykes and caused floods throughout the Lower Fraser Valley, and these disasters prompted the intervention of the dominion government for the first time in major financial assistance for dyking and drainage. These events had a most significant impact on Pitt Meadows, principally in providing greatly strengthened dykes at no cost to landowners.

The water level of the Fraser rose rapidly in mid-May of 1948. Its rise was marked on a gauge at Mission, a point some twenty miles upstream from Pitt Meadows.³³ On 26 May the water rose past the 20 foot mark on this gauge, a level always regarded as a danger point for dyked areas in the lower valley. The

dykes had been built to a level two feet above that reached by the 1894 flood, but the rapidly rising waters in late May made it appear possible that the 1894 flood level might be exceeded and that the dykes might be topped. A more probable danger, however, was breaching, caused by the pressure of water against dykes seriously weakened by prolonged saturation.

The situation prompted dyking districts and government authorities to organize emergency plans for dyke protection and for evacuation of areas that might be flooded. On May 25 military officers from all three services joined the discussions with civilian authorities, and indicated their willingness to help. The Red Cross prepared to help people who might be flooded from their homes. Meanwhile, the river continued rising. On May 26 it rose to 21 feet on the Mission gauge, and the next day rose another foot.³⁴ On this date, May 27, the river broke through dykes upstream from Pitt Meadows, at Dewdney and Agassiz, and forty families had to be evacuated from these districts. The next day, Friday, May 28, the river rose to 23 feet, and broke two transportation routes which ran through Pitt Meadows. The Lougheed Highway was washed out at Ruskin, twenty miles east, and the Canadian Pacific Railway was washed out at Hatzic, a further ten miles upstream. The CPR's transcontinental trains were rerouted on Canadian National tracks to the south of the river. However, the next day (May 29) many dykes on the south side of the river broke and the CN tracks were also washed out. All

communication by land between Vancouver and the rest of Canada was now broken.

May 29 also marked the beginning of flooding at Pitt Meadows. On that day the dyke around north Pitt Meadows broke. There were few farms in that region and no families were in danger. The principal effect of the break was to inundate the shooting range of the gun club that owned the property.³⁵ Elsewhere at Pitt Meadows the dykes held, although there was some seepage and ditches behind the dykes were full to the brim. As a precautionary measure eight hundred people living in the Maple Ridge and Pitt Meadows Number 2 dyking districts were evacuated from their homes, and cattle were driven from the lowland to the high ground in the centre of south Pitt Meadows.³⁶

On May 29 the navy took control of all water transport on the river, and was given power to requisition boats to aid in the rescue of flood victims.³⁷ As the river continued rising and more dyking districts up and down the valley were flooded, it became clear that a strong central authority was needed to co-ordinate the work of dyke maintenance and evacuation. Such an authority could be supplied by the army. On May 31 the provincial government declared a state of emergency, and placed the army in charge of all dyked areas.³⁸

During the first few days of June the evacuation of cattle



from the Pitt Meadows lowlands was completed, until 2,700 head were driven to some fields near the municipal hall on the central highland.³⁹ The dykes were patrolled day and night, and sandbags rushed to spots where breaks threatened. On June 4 the dyke around Pitt Meadows Number 1 broke. This land had reverted to the Crown and there were no farms on it. The area had been used for rough grazing, and the Columbian reported that "the scrub cattle there were able to move out by themselves."⁴⁰ This break was later blamed on a muskrat nest in the dyke.⁴¹ The water continued high, and on Wednesday June 9 broke through the Maple Ridge dyke near the confluence of the Pitt and Fraser Rivers. This break was quickly repaired and no damage from flooding resulted. The next day, June 10, the river crested at 24.71 feet, slightly below the level of the 1894 flood. It remained over 24 feet for several more days, and did not fall below the danger line of 20 feet until June 28, thirty-three days after it first rose above that mark. During that period the dykes around the settled areas of Pitt Meadows (the Maple Ridge and Number 2 Dyking Districts) had held, while those around the unsettled areas (Pitt Meadows Number 1 and north Pitt Meadows) had failed. The map, "Flooded Areas 1948", numbered 4-2, indicates the regions flooded.

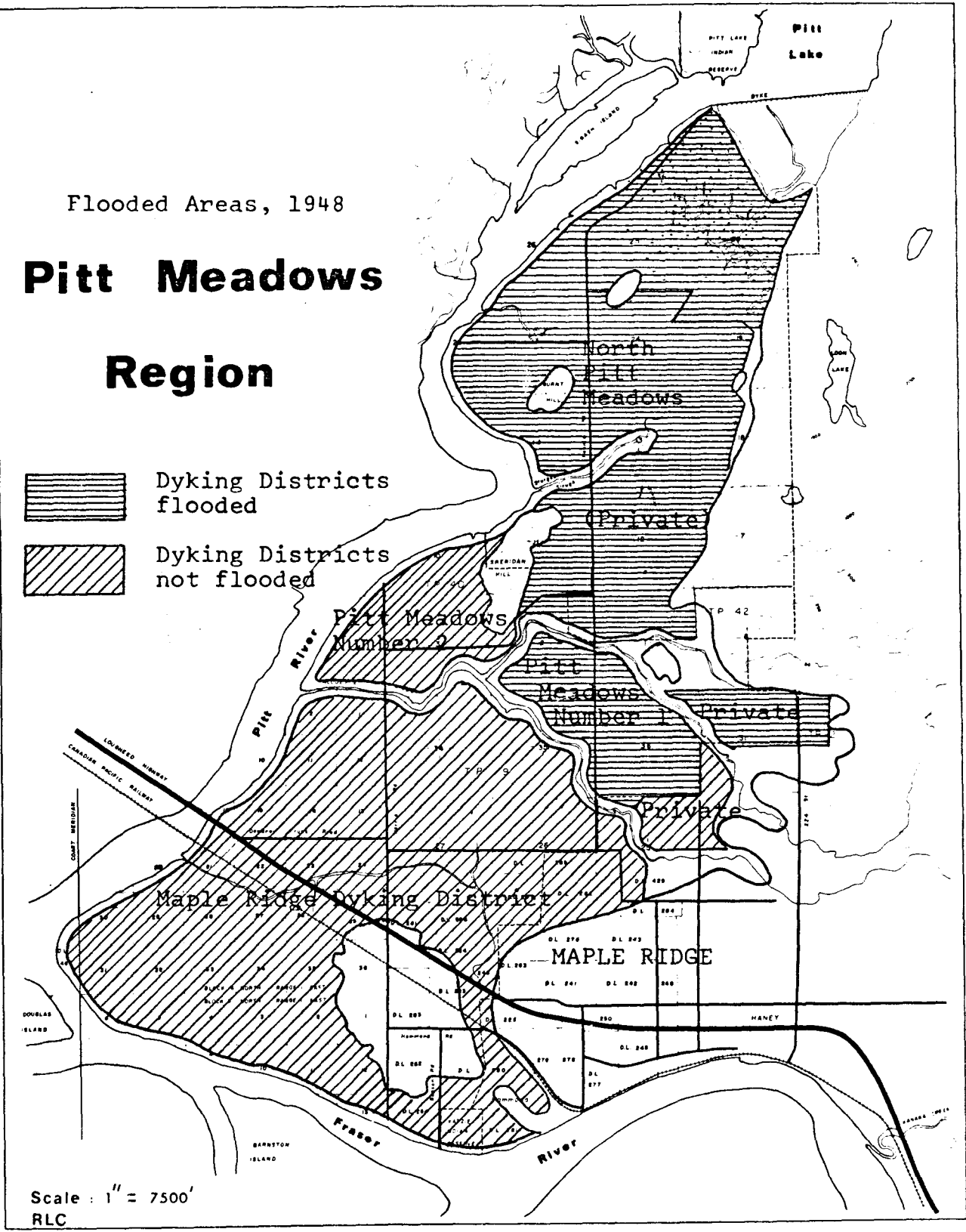
The Consequences of the 1948 Flood

The flood disasters of 1948 prompted the intervention of the Canadian federal government in reclamation schemes of the

Flooded Areas, 1948

Pitt Meadows Region

-  Dyking Districts flooded
-  Dyking Districts not flooded



Source: Fraser Valley Dyking Board, Final Report, plan 1, "Flooded Areas in 1948"

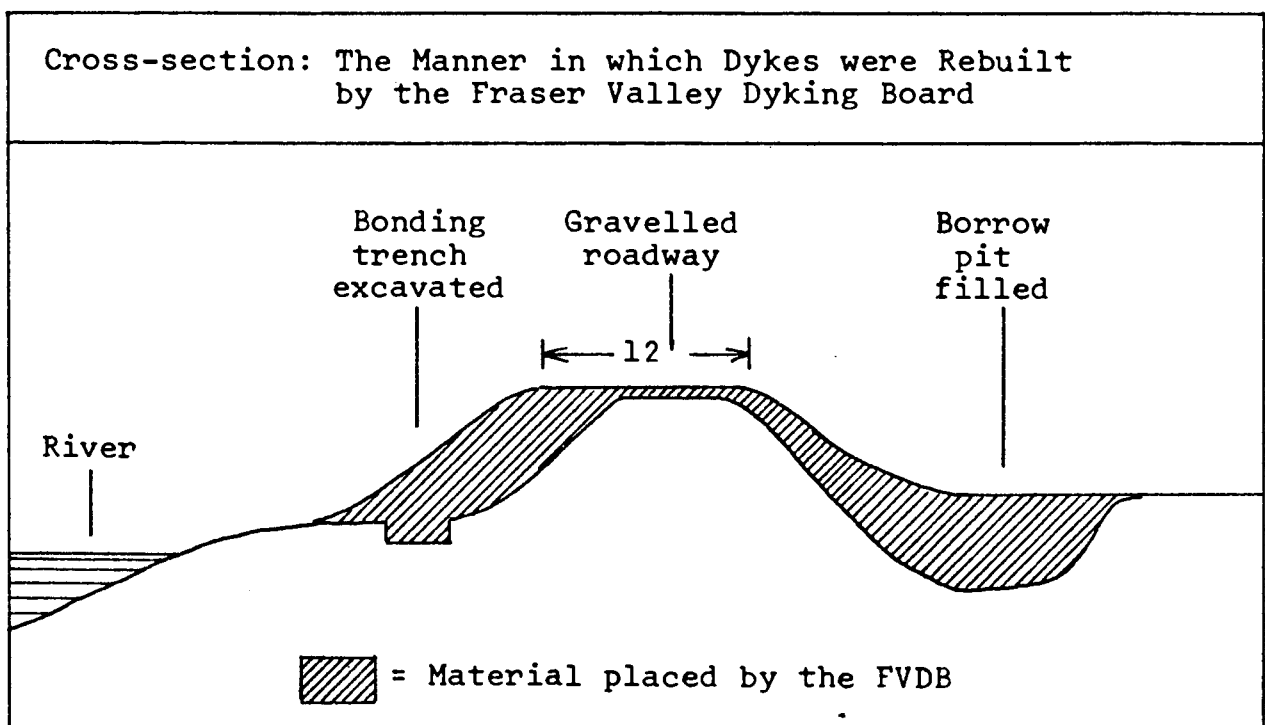
Lower Fraser Valley. On June 4, 1948, Prime Minister Mackenzie King pledged federal government assistance for relief and rehabilitation of Fraser Valley flood victims.⁴² Louis St. Laurent, Minister for External Affairs in the Mackenzie King cabinet, visited Vancouver on Monday, June 7, and flew over the lower valley. He brought his report of flood damage back to Ottawa, and two days later the prime minister proclaimed an agreement between the federal and provincial governments by which the dominion would pay seventy-five per cent of the cost of reconstructing dykes and drainage facilities, the province paying the balance.⁴³ The dominion would also give a \$5 million lump sum payment to the province for disaster relief.

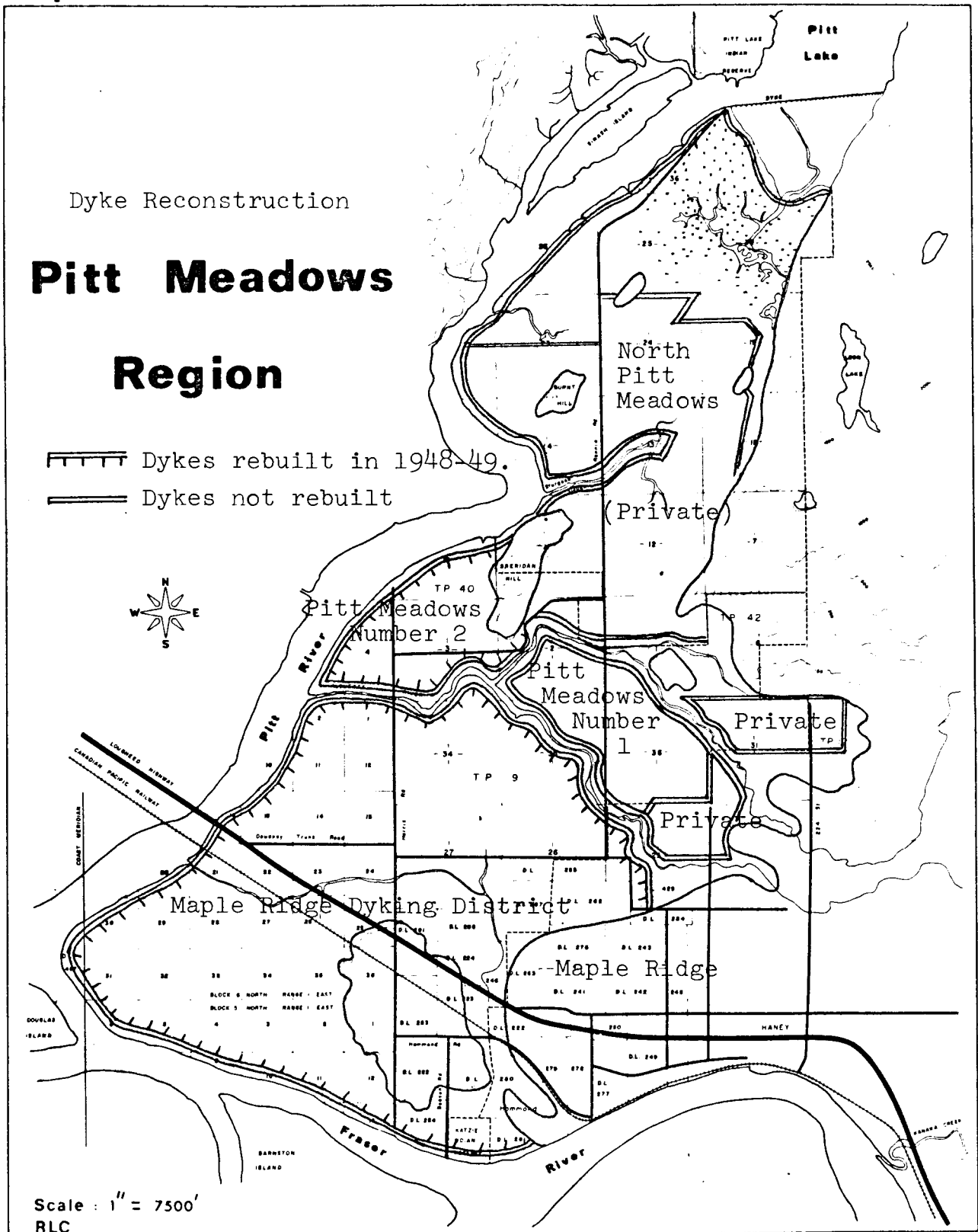
Provincial Premier Byron Johnson called a special session of the British Columbia legislature for July 7 to pass legislation authorizing the government to act under the terms of the dominion-provincial agreement. The session passed two principal acts, one for flood relief and one for establishing a dyking board. The Flood Relief Act empowered the provincial government to enter into agreements with the dominion to aid flood victims.⁴⁴ This act established the Fraser Valley Rehabilitation Authority to handle the task of helping re-establish flood victims, authorized the province to finance the operations of this authority from the Consolidated Revenue Fund, and in addition set aside the sum of \$5 million to be used both for

this task and for the rebuilding of dykes. Since comparatively little damage had been done to farms at Pitt Meadows this act had only a minor effect on the area.⁴⁵ It was the second act of the session, setting up the Fraser Valley Dyking Board (FVDB) which was to have the most impact on Pitt Meadows.

The Fraser Valley Dyking Board Act authorized the government to establish this board in co-operation with the dominion, and to pay twenty-five per cent of its expenditures.⁴⁶ The dominion was to pay the other seventy-five per cent. This board was to have a very limited life, being created to rebuild dykes to safer standards, and when this work was done it was to be dissolved. The works the board constructed would then become the property of the province, which would again resume complete responsibility for dyking and drainage. The board was to consist of three members, a chairman appointed by the federal government, and two other members appointed one federally and one provincially. The federal government appointed two civil engineers to be its members on the board, for chairman J.B. Carswell, and member F.G. Goodspeed. Goodspeed died within a week of the board beginning its work, and he was replaced by another engineer, Victor Michie.⁴⁷ The province appointed Inspector of Dykes Bruce Dixon. Dixon had been dyking inspector since 1921, and had on many occasions expressed his desire to upgrade the standards of dyking.⁴⁸ Budget limitations previously had checked his ambitions. The FVDB gave him the opportunity, after twenty-seven years of advocating improved dykes, to build these structures to the standards he desired.

The FVDB did not reconstruct all dykes in the valley, but concentrated only on those which enclosed areas with a significant number of settlers. Of a total of 250 miles of dykes in the Lower Fraser Valley the board reconstructed 163. Its reconstruction activities included installation of new flood gates and pumps, and associated drainage works. The map "Dyke Reconstruction", numbered 4-3, indicates the dykes at Pitt Meadows which the board rebuilt. The dykes around north Pitt Meadows and Dyking District Number 1 were not rebuilt, although breaches in them were repaired. Since these districts were uninhabited the board considered their reclamation beyond its terms of reference.⁴⁹ The dykes around the settled region of Pitt Meadows, i.e. around the MRDD and Dyking District Number 2, were completely rebuilt. The cross-section below indicates the manner of the FVDB's rebuilding.⁵⁰





Source: Fraser Valley Dyking Board, Final Report, plan 2, "Dykes"

Two faults of earlier dykes were corrected by this construction. The tops of the dykes were widened and gravelled to permit truck traffic, essential for emergency transportation of materials to repair breaches; and the borrow pits were filled in, eliminating the danger of muskrat erosion. Seepage through the dykes had not been a major problem at Pitt Meadows, but the bonding trench built at the base of the new dykes completely eliminated this factor.

The FVDB worked quickly, for its objective was to get dykes reconstructed before the freshet of the following year. Of the 163 miles it planned to rebuild, 142 were completed before the 1949 freshet.⁵¹ In Pitt Meadows the Maple Ridge and Number 2 dykes were substantially completed by this date, except for some gravelling of roadways and the filling of some borrow pits.⁵² The freshet of 1949 was comparatively low, reaching only 19.5 feet on the Mission gauge compared to 24.7 feet the previous year. The newly-built dykes stood the test, and the FVDB report notes that "during the week of maximum flood levels the farmers behind the dykes were seeding in a cloud of dust."⁵³ The hyperbole of the dyking engineers is perhaps excusable in the face of their tremendous achievement. The following year the dykes were put to a more severe test when the freshet rose to a height only .5 feet below the level of 1948. All the rebuilt dykes stood, but the dykes the FVDB had merely repaired and not rebuilt did not fare so well.

The repairs made in the north Pitt Meadows dyke and Pitt Meadows Number 1 dyke both failed, the latter break again being blamed on muskrats.⁵⁴ These breaches were not repaired since no-one was living in the areas flooded, and the FVDB was in the process of winding up its affairs.

The FVDB came to its official end on August 31, 1950, having completed its task of securely dyking the settled lowlands of the Lower Fraser Valley, lands which incidently lay on the routes of the two major railway lines.⁵⁵ The board's responsibilities, assets, and liabilities, were given to the Fraser Valley Dyking Commission (FVDC), a newly-created provincial organization.⁵⁶ The purpose of the FVDC was to ensure that the dykes built by its predecessor should be adequately maintained, and that future flood disasters should be prevented. The office of Inspector of Dykes was combined with that of Chief Commissioner of the FVDC. The holder of these two offices had overlapping responsibilities: as Inspector he was directly responsible for the dykes given under his care by the Public Dyking Act of 1898 (which included the three dykes in south Pitt Meadows), as Commissioner he was responsible for overseeing all valley dykes, whether public or private, to ensure that they were adequately maintained. The creation of the FVDC was public acknowledgement by the province of its continuing responsibility for Fraser Valley reclamation programs. Yet it was something of a step

backward from the position taken by the province directly following the 1948 flood. Then it had agreed, in co-operation with the dominion, to secure the dyked areas from flood with no mention of contribution from local landowners. The act which established the FVDC, by omitting to provide for continued capital funding, implicitly returned this responsibility to the owners of the dyked lands.

Why did the federal government intervene to aid Fraser Valley dyking after the 1948 flood? Previous federal government contributions for dyking had been insignificant. After the 1894 flood there had been almost no federal aid, a mere \$50,000 for a study of the flow of the Fraser River.⁵⁷ The contrast with the \$13.6 million donated by Ottawa for flood relief and dyke rebuilding in 1948 is quite dramatic.⁵⁸ There are many reasons which can be suggested for this change of heart. The United States government had been quick to promise generous aid to victims of similar floods in the Columbia and Willamette river basins in states neighboring British Columbia.⁵⁹ The Canadian government could scarcely do less than follow the American example. The Fraser Valley was a more populous part of the dominion in 1948 than it had been in 1894.⁶⁰ The national government was also stronger and wealthier, and more able to help in 1948 than it had been at the time of the earlier flood. Another reason to be considered was a heightened national awareness in 1948, an emotional over-

run from the Second World War. Because of this awareness disasters in any part of Canada were viewed by the federal government as national rather than as purely provincial matters. This was particularly the case in the Lower Fraser Valley, where the local disaster broke national transportation routes. The flood, by washing out the two transcontinental railways, had broken the two links that joined the rest of Canada to its west coast, and brought to the attention of the national government "that dykes are not the concern of the people living behind them alone, but are also of vital interest to the nation."⁶¹ This comment is from a provincial dyking inspector, but a joint federal-provincial publication later also noted the importance to the country as a whole of these routes.

In the Lower Fraser Valley these transportation arteries (the transcontinental railways) traverse the old flood plains of the river where they and the major export-import industries they serve are susceptible to extensive loss and damage from extreme flooding. As was the case in 1948, but even more pronounced under present day conditions (1968) the potential loss to the Canadian economy through the flooding of these routes is extremely high.⁶²

To some extent, it would seem, the Lower Fraser Valley can thank its dyke rebuilding program after 1948 to its fortuitous location on routes held to be vital to the national interest. The railway that passes through the centre of Pitt Meadows has been not only a transportation asset but also a reclamation asset.

Why did the nation and the province lift the burden of dyking completely from the shoulders of local landowners after the 1948 flood? The question was not answered in the government reports of the period, but it had been answered after the 1894 flood by the provincial premier of the time, Theodore Davie.

What is plainly the lesson of the floods is the necessity for a comprehensive system of dyking which will include the whole inundated area of the Fraser Valley. The magnitude of this task places it beyond the ability of private enterprise and makes it clearly the duty of the state to undertake.

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In 1894 the "state" had been the province, in 1948 the term included the nation. It became plain after the 1948 flood that the major dyke rebuilding program necessary to secure the Fraser Valley lowlands against similar floods in the future was far beyond the repayment abilities of local landowners. The concept of local contribution was abandoned as the magnitude of the task made it "clearly the duty of the state to undertake."

Recent History of Dyking

The interest of the federal government in dyking did not end in 1950 with the demise of the FVDB. The previous year the dominion had set up a joint board with the province to study the problems of the Fraser River in total, including the prevention of flooding in the lower valley.⁶⁴ This board was

intended to act "largely as an investigative body, gathering the basic data missing from the ... records."⁶⁵ Its expenses were shared equally by the two governments. In 1955 this board was succeeded by the Fraser River Board, another federal-provincial organization, which was given the specific task of recommending projects for flood control and hydro power.⁶⁶ In 1963 this board presented its final report, which recommended upstream storage and hydro dams, and also a \$4.9 million program to improve dykes in the lower valley.⁶⁷ No immediate action was taken on this report, and in 1966 a federal-provincial committee was established to review its estimates. This committee reported on a plan of flood control which would cost \$33 million.⁶⁸

On the basis of this latter report, and because of an increasing need for flood protection as more people settled on the dyked lands, the two governments in May of 1968 agreed on a plan for securely dyking the Lower Fraser Valley.⁶⁹ This agreement involved the province and the nation in a program to improve dyking and drainage on an equally-shared cost basis, to a maximum of \$18 million each. Local areas benefitting were to return to the two governments at least ten per cent of the costs, but in 1974 the local share was forgiven, and the senior governments now, as in 1948, bear the whole burden of capital dyking costs.⁷⁰

While the province had been arranging to share dyking costs with the federal government it had forgiven old dyking debts. In 1962 all indebtedness to the province by Pitt Meadows Number 1 was cancelled prior to that district being turned over to a private company.⁷¹ The same act which cancelled this debt also dissolved the Maple Ridge Drainage District, making it part and parcel of the Dyking District. Debt repayments for this combined district, and for Pitt Meadows Number 2, were cancelled.⁷² Eight years later the debts themselves were cancelled.⁷³ On the same date these districts were handed over to the municipality of Pitt Meadows and ceased to become distinctive organizations.⁷⁴

While the capital costs of dyking and drainage have been forgiven, maintenance costs still remain with the dyked-land owners, who must now pay these to their municipality instead of the dyking district. Maintenance has always been a major part of the dyking tax, varying between fifty and eighty per cent of the total.⁷⁵ The cancellation of capital debt has been only a limited relief to farmers and other owners of dyked lands.

Why could not the owners of dyked land afford to pay for their own dykes? By 1948, the first year of the complete government assumption of dyking capital costs, most of the landowners at Pitt Meadows were farmers.⁷⁶ If farm prices had been high

enough then these farmers could have afforded to pay for their dykes. But farm prices were not sufficiently high because a large proportion of farmers who sold in the British Columbia market did not farm on dyked land, and could sell their produce at costs which did not have to include dyking costs. Dyked-land farmers had to match their prices to remain competitive. To stay in business, and at the same time carry their extra tax, the dyked-land farmers had to have either a higher productivity than other farmers, or combine with their fellows to fix prices at levels which would allow them to meet their heavier tax load. To a certain extent the farmers at Pitt Meadows have done both. They have become very efficient dairy farmers, aided by the natural advantages of their land and climate. The mild moist weather, flat land, and fertile soil of the region have kept their pasture perpetually lush. The region was (and is) ideally suited for dairy farming, and farmers have specialized in this occupation and achieved a high degree of efficiency. In addition, they have formed an association with other valley farmers, the Fraser Valley Milk Producers' Association, for the purpose of maintaining high prices for dairy produce.⁷⁷ Farmers from Pitt Meadows took the lead in the formation of this association which has attempted, since the First World War, to get dairy farmers what they consider a fair price for their products. Yet in spite of these advantages of productivity and association, the rewards of the market place have been insufficient to meet the costs of dyking. Outside capital has been needed, in vast amounts, to secure the lowlands from

flood, and this has been provided by the provincial and (since 1948) by the federal governments.

Conclusion

The story of land reclamation at Pitt Meadows from 1905 - 1975 is a story of progressive government involvement. From 1905 to 1947 the provincial government loaned dyking districts money for needed improvements, and until 1932 exacted debt payments in the form of dyking taxes. The districts became increasingly indebted as the money they required to secure and drain their land constantly exceeded their ability to repay. The drop in farm income during the Depression prompted the province to postpone dyking debt payments, and this period of postponement lasted through 1945. In 1947, under the Clement's scheme, dyking debts were substantially forgiven, although the landowners still retained a measure of responsibility for capital costs. The flood of 1948 made both senior governments aware that the security of the dyked Fraser Valley lowlands was in the provincial and national interest. Both governments undertook a joint plan to rebuild dykes, to the cost of which local landowners contributed nothing (except insofar as they were taxpayers of Canada and British Columbia). When this rebuilding was complete the province again assumed exclusive responsibility for reclamation, and continued to demand some repayment of dyking debt from landowners. However,

in 1962 it abandoned this policy, and effectively cancelled all dyking debt. In 1968 the federal and provincial governments resumed the joint responsibility for dykes they had born in the 1948 - 50 period. The cost of future dykes was to be born equally by the two governments, with local areas contributing ten per cent. Recently this local contribution has been waived, and dyked-land owners are now free of all concern with capital costs, although they retain responsibility for maintenance.

Dykes have stood at Pitt Meadows for eighty years. Begun by private enterprise, responsibility for them has fallen upon government, first on the province and, since 1948, also on the dominion. The intervention of government to aid dyked-land owners can be seen as prompted by the need of both province and nation to keep open routes to the west coast. But government intervention has also been based on the unstated assumption that although dyked lands could not pay for their own reclamation they should be maintained for agricultural use. This assumption is not stated or explored in any of the many government reports on dyking, but is implicitly the basis of these reports. Pitt Meadows and other valley lowlands were settled agricultural regions (or regions with the potential for such development) reclaimed from the wilderness by the initiative of private enterprise. By such reclamation British Columbia and Canada had been created. Private enterprise

had been unable to maintain the security of these regions from flood, and governments were faced with the choice of either letting them revert to the wilderness or of assisting in their reclamation. By permitting reversion to the wilderness governments would be permitting a productive part of the country to be destroyed. They chose instead to give whatever aid was necessary to secure these lands from flood. Funds spent in such an endeavor were an investment in preserving a valuable part of the province and the nation.

Chapter 5

The Reclamation of North Pitt Meadows

Dutch Interest in North Pitt Meadows

Before 1950 dyking projects at Pitt Meadows had been financed and carried out by land speculators who had hoped, through dyking, to increase the value of their land. Their projects had been inadequately financed and poorly carried out, and were only completed with government support. Subsequent owners of dyked lands had also needed government support to upgrade dyking and drainage works. In 1950, however, a new element was introduced into the history of land reclamation at Pitt Meadows that broke these traditional patterns. This was a Dutch company, which planned to reclaim its lands not as a speculation, but with the intention of retaining ownership, farming part of its lands itself while leasing some to other farmers. This company was aware of the problems of dyking and drainage, and possessed skilled personnel to carry out adequately its reclamation projects. It also had access to sufficient capital to carry its programs through to completion. In these three matters, of land ownership, reclamation skills, and capital, this company stood in sharp contrast to previous landowners who had initiated reclamation programs at Pitt Meadows.

The land the Dutch company planned to reclaim was an area of Pitt Meadows where previous reclamation attempts had failed, north Pitt Meadows, and the Pitt Meadows Dyking District Number 1. These lands were the most low-lying and difficult to reclaim in

this region. They had been part of the grant of the British Columbia Drainage and Dyking Company (BCDD) in 1890, which had dyked District Number 1, but had failed to reclaim its northern lands. This latter region had subsequently reverted to the Crown dominion. In 1913 it had been acquired by the Pitt Meadows Land Company, which had dyked and drained the land, but its reclamation work had been inadequate, and its attempts to place settlers on the land failed. In 1939 the region was bought by Pitt Farms Development Limited, a company which represented a group of Vancouver business men who had formed a gun club, and used the property for duck shooting.¹ The Number 1 Dyking District had also generally remained as Crown land since the demise of the BCDD, apart from intermittent attempts at reclamation improvement by developers and farmers. This district's dykes had been breached in 1924, 1948, and again in 1950. Because of the extreme difficulties of reclamation this region, along with north Pitt Meadows, had attracted only large landholding companies whereas elsewhere in Pitt Meadows land had been held in comparatively small plots. In these northern areas the company building the dykes had been the sole landholder. The Dutch company continued the traditional pattern in these areas of being the sole landholder of the region dyked. However, they provided a contrast to another traditional pattern; where others had failed they were successful.

In order to trace the beginnings of Dutch interest in north Pitt Meadows it is necessary to go back to 1911. In that year a Dutch-owned mortgage company, Netherlands Investments Limited, began

operating in North America. The company's principal business was making farm mortgages in Western Canada and the United States. During the Depression of the 1930's many of the lands mortgaged by the company fell into its hands as mortgagees failed to make payments or simply deserted their farms. The company was unable to maintain payments on its loans from its Dutch holding company, the Transatlantic Mortgage Company, and failed. Following the Second World War Transatlantic sought to recover some of its investment by selling the lands it held through its receivership of Netherlands Investments. It sent a manager to North America, Dr. Jan Blom, to oversee these land sales. Blom travelled throughout the west, and in June of 1949 visited his company's agency in Vancouver.²

At the time of Blom's visit to Vancouver the gun club which owned north Pitt Meadows was anxious to sell its property. Its dykes had broken during the 1948 flood, and while the FVDB had promised to repair these, it had refused to undertake a rebuilding program.³ Dykes were necessary to promote duck breeding, since they secured the land from flood and prevented the ducks' nests from washing away during the freshet. Dykes were also necessary to protect the meadowlands which the club rented out to local farmers, and which brought an income which enabled it to pay its taxes each year. A club house and other buildings were also protected by the dykes.⁴ To ensure continued dyke protection the gun club would have to rebuild its dykes (since dykes which had broken once might easily break again), or alternatively it could sell out. Blom, representing a Dutch investment company, and

with access to investment funds, might be interested in buying them out. Upon hearing that he was in Vancouver some of the club's leading members contacted him and sought to interest him in buying its property. Towards the end of June, 1949, they took him out to view the land. At the time the freshet was at its height, and since the dykes in the region had not yet been repaired from the ravages of the 1948 flood, the lands were under water. A canoe was provided, and in this vessel the forty-three year old Blom made his first tour of the property he was considering for purchase.





Despite such an inauspicious beginning Blom was interested in the property, for he believed it could be converted to agricultural use. Many factors combined to influence him to this opinion. His Dutch compatriots possessed the skills of dyking, drainage and pump construction which it would be necessary to employ to reclaim the land and prepare it for farming. A government soil survey showed that the land had a high agricultural potential, and that its soil compared "with the most productive soils in the Lower Fraser Valley."⁵ The soil report noted that the Pitt Meadows lands still unreclaimed in 1939 (which included north Pitt Meadows) needed a greatly lowered water table and treatment for acidity, but stated firmly that "with proper drainage and soil treatment the Pitt Meadows area is capable of growing into a productive farming district."⁶ The price of the land was low, \$6 an acre at a time when land within dykes elsewhere in Pitt Meadows was selling between \$15 and \$30 an acre.⁷ The advantage of the

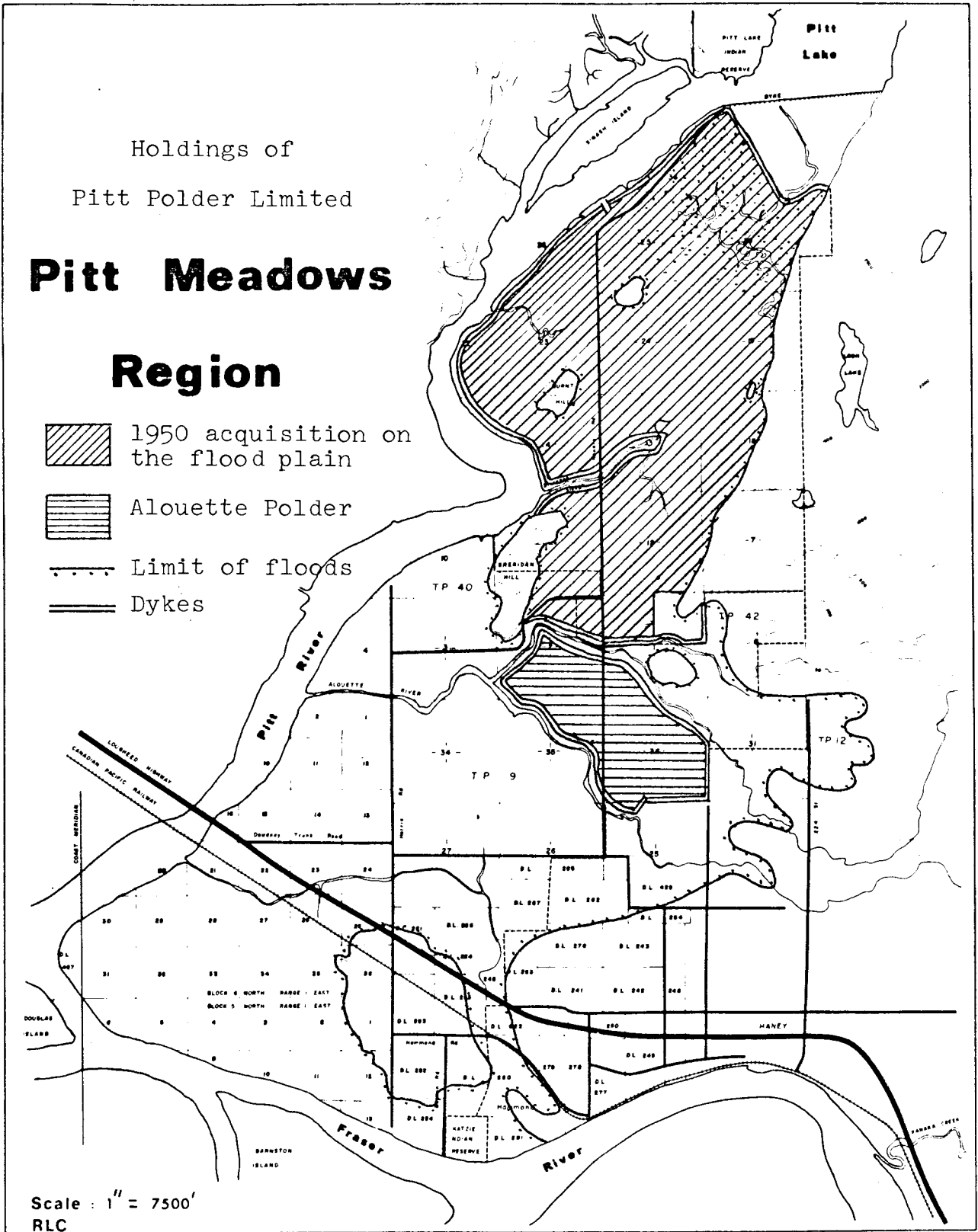
low price would be partially offset by the high cost of reclamation, but since little agricultural land remained unoccupied in the Lower Fraser Valley its value was likely to rise, and the capital gains the company could achieve by its reclamation would be further increased by a general appreciation of valley land prices. The site was also easily accessible by water, via the Pitt and Fraser Rivers, a factor which Blom considered important from his Dutch experience.⁸ He took an option on the land, and returned to Holland to seek financial backing and technical advice. A Dutch engineer was sent over to consider the suitability of the site for reclamation and to prepare a cost estimate. He returned with a favorable report and a cost estimate of \$300,000.⁹ Blom was successful in interesting a number of Dutch businessmen in the project, and they formed a holding company, the Leiden Administrative Office, to invest in the venture.¹⁰ Assured of financial backing Blom returned to Canada in 1950 and bought all the shares of the gun club for \$40,000, thus acquiring its property at Pitt Meadows. The property extended over some 6,700 acres, and is identified on the map numbered 5-1, "Holdings of Pitt Polder Limited". Blom's company took the Dutch word "polder", meaning reclaimed land, both for itself and its property.

The new company set to work vigorously to reclaim its land. It formed a subsidiary, CBA Engineering, to carry out the work. Dutch engineers were hired, since reclaiming this land was similar to reclamation work with which they were familiar in Holland.¹¹ Many Dutch immigrants were found already living in Pitt Mea-

Holdings of
Pitt Polder Limited

Pitt Meadows Region

-  1950 acquisition on the flood plain
-  Alouette Polder
-  Limit of floods
-  Dykes



Scale : 1" = 7500'
RLC

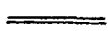
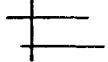



Source: Certificates of Indefeasible Title 133109E, 133110E, and 133112E, Land Registry Office, New Westminster, B.C.

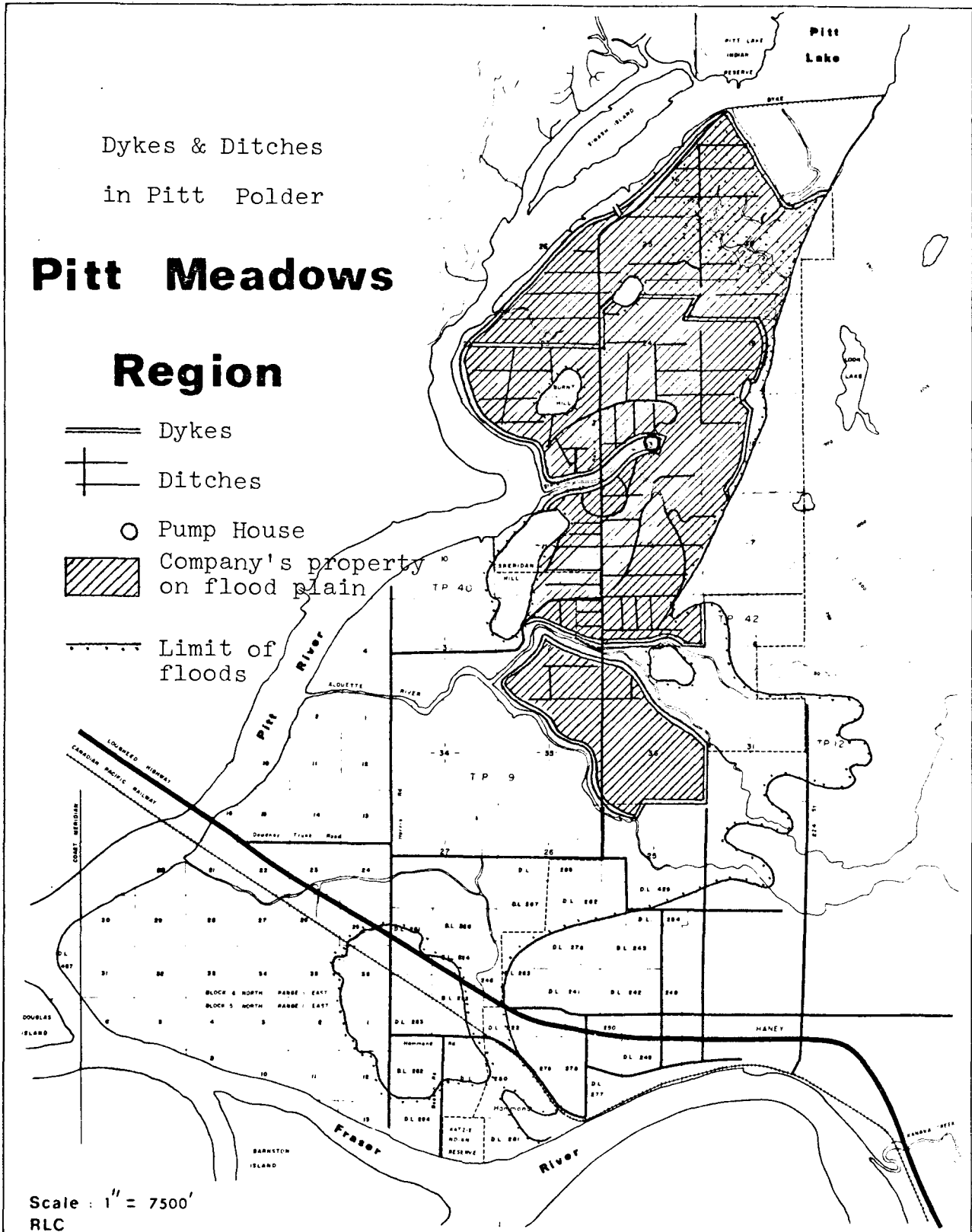
dows who were anxious to work as laborers and machine operators on the project. In the fall of 1950 roads were built into the area so that equipment could be moved in. In 1951 work began on the encircling dykes, which were built to standards similar to those of the FVDB. The whole region was also drained by a series of ditches. The layout of these works is indicated on the map 5-2, "Dykes and Ditches in Pitt Polder" which follows. In building these works CBA Engineering followed the layout of previous dyking and drainage works.¹² However, the new works were of a far higher standard than those previously existing. The Dutch engineers, drawing on their experiences of reclamation in Holland, and utilizing the knowledge gained locally on the regime of the rivers, were able to build dykes which would stand against the worst floods known, and construct a series of drainage ditches which would effectively remove rain water from the land.

The work of reclamation may be seen as having four phases: dyking, gravity drainage, pump drainage, and preparation of the land for farming. Pitt Polder Limited, in the period 1951 - 1954, carried out the first two phases on all its property. The final two phases, however, were carried out only on the southern part of the polder. About 3,000 in the north of the region was extremely low-lying and would be very costly to prepare for cultivation. This region was left for future development, and remained unpumped and uncleared, although it was dyked, and drained by series of ditches to a flood gate on the Pitt River. The southern part of the polder, rather more than 3,000 acres, was developed

Dykes & Ditches
in Pitt Polder

Pitt Meadows Region

-  Dykes
-  Ditches
-  Pump House
-  Company's property on flood plain
-  Limit of floods



Scale : 1" = 7500'
RLC

Source: Map: "Pitt Polder" by CBA Engineering Ltd., in a file, "North Pitt Meadows Area", in the office of the Inspector of Dykes.

in this period for farming. Reclamation work in this district concentrated around Sturgeon Slough, in its approximate centre, where a large pump was assembled capable of raising over 80,000 gallons per minute . A grid of ditches and natural watercourses drained the district towards the intake of this pump, which raised water into Sturgeon Slough along which it flowed to the Pitt River.¹³ The land was then cleared and plowed, drain tile was laid under the fields, and the company experimented by planting various crops to find the best use for its land.

Blom, having initiated the Pitt Polder project, spent the year of its commencement (1951) in Holland, arranging the financing necessary for the heavy expenses of reclamation, and left the on-site planning to others. At this time a central village was planned, where farmers would live in the traditional pattern of some Dutch rural communities, going out to their fields during the day and returning to the village at night. The site for the village was selected on the south bank of Sturgeon Slough, and encircled by a ditch, marked on the map 5-2. However, it was not Blom's intention to create a Dutch colony, he wished to develop a community of both Dutch and Canadian farmers. In 1952 he moved out to site himself, and replanned the community aspect of the polder on the dispersal settlement pattern common in Canada, where farmers live on their land and not in a central village.¹⁴ Since then he has lived on the site, directly overseeing the engineering, farmplanning, and settlement of the polder. He has acted continuously as general manager as well as director of the Pitt

Polder Company. While most of his time has been spent on the project, each year he has made a trip back to Holland to report on progress to his backers in Leiden, and to raise what further capital has been needed.

In the early 1950's the work of reclamation proceeded rapidly. The pump was completed in May of 1952, and immediately began operation. In July it was reported as successfully keeping the water table at least three feet below ground level.¹⁵ By mid-summer of 1952 over 1,000 acres had been plowed and cultivated ready for planting, although the season was too far advanced for planting in that year. In 1953 crops of oats and rye were planted, besides some vegetables. These were lost since the pump was inadequate to reduce the water table during a period of heavy rainfall, and the crops were unable to survive in the waterlogged soil.¹⁶

By 1954 Pitt Polder Limited had settled on dairy farming as the best use for their land.¹⁷ If they wished to cultivate crops the company would have to purchase and instal another pump to keep the water table low during periods of heavy rainfall. This would be a heavy investment, and another pump, apart from periods of heavy rainfall, would be standing idle much of the year. In addition, even with improved drainage, the heavy rainfall made the soil so soft that it would be difficult to use cultivation equipment in the fields. Dairy farming could flourish using the existing facilities, and so it was chosen as the preferred type of farming for the polder.

Pitt Polder planned to farm some of its land directly, and to lease some to settlers. To prepare land for settlers the company divided it into eighty-acre units. These were drain-tiled, ditched, cleared and cultivated, and planted to grass. A house, barn, and other necessary outbuildings were built on each unit. In 1954 the first four settlers were selected and placed on the land. These first settlers were Dutch immigrants who had worked for the company on its reclamation program. While these settlers had not come to Canada to farm, they had proved to the company during the reclamation work that they were reliable persons who could be entrusted to make good use of a farm lease. They had also fulfilled a requirement of the company that all its lessees should have spent at least two years in Canada before being granted a lease.¹⁸

These immigrants had come to Canada during the peak period of Dutch immigration, a period that began in 1946, peaked in 1952, and had subsided by 1960.¹⁹ Petersen suggests that this period of heavy migration from Holland was due to population pressure, and to the emigration subsidies offered by the Dutch government as a means of relieving this pressure.²⁰ Hofstede considers that other factors besides population pressure and emigration subsidies were important in the postwar flow of migrants from Holland. He describes the movement as a unique accident, brought about by a combination of forces. These included the Depression of the 1930's, followed by the German occupation of World War 2, postwar poverty, contact with Allied armies, and the loss of Indonesia, besides the pressure of population, which he notes

was most apparent to individuals likely to emigrate, i.e. to young people in their early twenties, through the critical housing shortage Holland suffered after the war. The Netherlands, he says, had "fifteen years brightened by socio-pathological phenomena."²¹ These phenomena drove many thousands of Dutch to leave their homeland and seek new homes throughout the world. Canada was the preferred country for many of them, and some few of these arrived in Pitt Meadows, were employed by the Pitt Polder Company, and leased farms in the polder. Dutch settlement at Pitt Polder can thus be seen as part of a world-wide movement of post-war Dutch emigration.

To enable its settlers to get well-established Pitt Polder set its initial rental rates very low. Settlers paid at first \$20 a year for each acre farmed. This amount included house rental. The leases were for five year-terms, renewable at the option of either party, with the rents rising one dollar a year for the first five years.²² Rents have risen since then, and today (1975) are between \$55 and \$65 per acre per year. As leases expire every five years new terms are negotiated. The company claims that current rents are adequate for the running expenses of the polder's operation, but do not yield a return on its investment. It is noted, however, that the company has other sources of income besides rent from settlers. It draws income from the farms it runs itself, plus it draws rents from a rock quarry on Sheridan Hill in the southwest corner of its property, and moneys from

the rentings of shooting rights to gun clubs who use undeveloped parts of the polder.

By 1962 the company had settled a total of nine families on its lands, and since that time no further farms have been leased. About one half of the original settlers remain. Others have moved off the polder in order to buy their own farms. Farm size has increased since the original eighty acre units were leased, and today farm size in the polder averages one hundred acres. Settlers' satisfaction and increasing farm size indicate that rent levels are not overly high. Comparison with rent levels in other parts of the Lower Fraser Valley are difficult to make, since the leasehold arrangement is an uncommon method of farm tenure in this region. Ginn indicates that the significance of Pitt Polder, from the point of view of Dutch settlement in the valley, lies both in its reclamation achievement and "in the tenure innovation of renting farms from a company."²³ While Dutch and other settlers in the valley prefer to purchase rather than lease their land, the leasing arrangement at Pitt Polder seems to have been satisfactory from the settlers' point of view. Those who have moved went to farms they purchased. They were able to make this move because it had been possible for them to accumulate sufficient capital under their leasing arrangement with the company.

As with other dyking districts at Pitt Meadows, the cost of Pitt Polder outran original estimates. However, unlike these other projects, Pitt Polder was not bailed out of financial difficulties

by the government, but was developed entirely by private capital. By 1952 the original projected cost of \$300,000 had risen to \$500,000 for reclaiming the southern portion of the polder alone, and \$1.3 million was projected for reclaiming the whole property.²⁴ Until 1955 all the capital used in the project came from Holland. In that year the company needed capital to build a major new dyke across the foot of Pitt Lake, and decided to seek it in Canada. It thought it prudent to seek Canadian capital as an insurance against possible future legislation which might restrict foreign ownership of Canadian land. While no such legislation was pending, the fact that capital was needed and the possibility of such laws in the future helped persuade the company to make this decision. Also, since the projected dyke would require co-operation with several government departments, the company wanted capital "with local knowledge."²⁵ Companies can buy such knowledge by hiring consultants, but Pitt Polder considered that knowledgeable capital was preferable to knowledgeable consultants. Those with capital invested in the company would have a greater interest, as they would regard their services as protection for their own investment. Leon Ladner, a Vancouver lawyer who had been a member of the gun club which had previously owned north Pitt Meadows, was interested in buying shares in Pitt Polder, and persuaded a friend, Walter Koerner, a British Columbia "lumber baron", to join him.²⁶ As a consequence of the investments of these two men, the company today is approximately half-Canadian owned.²⁷

The company's reclamation costs have continued to rise, and in the early 1970's stood at approximately \$3 million. In 1972, however, the company recouped about one-half of this by the sale of almost one-half of Pitt Polder to the provincial government for Green Belt. Its current (1975) investment in Pitt Polder (and adjoining Alouette Polder) can thus be estimated at \$1.5 million.²⁸ Blom blames much of the high cost of reclamation on the inaction of the provincial and federal governments. When the initial cost estimates for reclaiming Pitt Polder were made he had expected the two governments to develop major flood control projects on the Fraser River. He had some reason for supposing that such projects would be built. Following the 1948 flood the senior governments had set up a joint board, the "Dominion-Provincial Board, Fraser River Basin", to study the flow of the Fraser River. While this board had been largely an investigative body, the intent of its investigations had been to provide data for a possible flood control program.²⁹ This board in 1955 had been replaced by the Fraser River Board, which was established to recommend to both governments specific flood control projects for the river. In 1963 this board had recommended the building of five upstream storage reservoirs for flood control. Partly because of the high cost of such projects no action has yet (1975) been taken, and Pitt Polder Limited has had to make its lands more secure than it would have needed to if such developments had been carried out.

Reclaiming Alouette Polder

In 1952, at a time when its reclamation work was at a peak in its recently acquired property, Pitt Polder Limited expanded by purchasing an adjoining dyking district. This was Pitt Meadows Number 1, which the company renamed Alouette Polder. This district, while much smaller than the northern polder (about 1,100 acres compared to 6,700 acres in the original purchase), was also an extremely low-lying area where previous reclamation attempts had failed. The lands in this district had principally remained with the Crown since the 1930's. Its dykes had been breached by the 1948 freshet, been repaired by the FVDB, but were breached again in 1950. The 1950 breach had not been repaired. In 1948 and the three succeeding years the province had leased grazing rights in the area to local dairy farmers, but in 1952 decided to try to sell the land to private interests.³⁰ The Inspector of Dykes recommended that the district be sold "as is", i.e. with the breached dyke, and that final purchase should be conditional upon reclamation.³¹ The government accepted this recommendation, and in June of 1952 offered the land for sale on the basis of a tendered price "as is" plus the promise to spend specific amounts for reclamation works. One tender, from Pitt Polder Limited, was received, and in September was accepted. The tender proposed to pay \$9,670 for the land (about \$9.50 an acre) and to spend \$116,000 within three years on reclamation works.³² Bruce Dixon, the Inspector of Dykes, reported enthusiastically on this offer. "This same firm

has previously acquired the lands of the north Pitt Meadows Dyking District, and it is hoped that the two developments together will greatly speed the progress of this part of the Fraser Valley." ³³

The company did not keep their pledge to spend the specified amount within three years, and it was not until thirteen years later, in 1965, that their reclamation finally satisfied the government. ³⁴ Blom explains the tardiness of the company in reclaiming this land by the tardiness of the government in providing access to the site. While the government did not build a bridge across the North Alouette River to this polder until 1956, there remain nine years of road access during which the company failed to complete its works. Prior to the building of the bridge the company could have barged its equipment across the river. Their enthusiasm for water access is noted as a factor which first helped to persuade Blom to acquire the Pitt Meadows property. The fact of the matter would appear to be that Alouette Polder was a low priority with Pitt Polder Limited. The main thrust of the company's energies was in reclaiming its lands north of the Alouette, and work on the smaller polder was done when its equipment was not needed elsewhere. Dyking work was done around the district from time to time, but these works only slowly approached the quality of other dykes the company had built. Three times, in 1959, 1962, and 1964, the company requested that its dyking works be approved by the government. ³⁵ It was not until March of 1965 that the dykes of Alouette

Polder were judged to be of adequate standard and the Inspector of Dykes considered that the company had fulfilled the conditions of its 1952 contract.³⁶

The settlement of the Alouette Polder has been on a different pattern from the settlement of the northern polder. The company has decided to operate the whole district as one farm. It has placed a family on the property, and the father and his two sons work as employees of the company and run a large dairy farm operation with a high degree of efficiency. In 1946 the Inspector of Dykes referred to this area disparagingly as "very inferior pasture."³⁷ Today Pitt Polder Limited has proven that, with proper dyking and drainage, the soils here can provide as good pasture as any in Pitt Meadows.

The Pitt Lake Dyke

Eleven years before the company finished dyking Alouette Polder it completed its dykes around its northern or main polder. This defensive perimeter followed the pattern of previous dykes. Although the company's dykes were far stronger than former structures, they were dangerously weak at a point where previous dykes had broken. This was the point where the dyke along the foot of Pitt Lake forms the apex of a "V" as it turns north to rest against the mountain wall on the east side of the lake. During times of high water and northerly winds the waves of Pitt Lake built up in the shallow water and confining axes of this "V" formation, and pounded with great force against the southern vertex. The pounding of these waves caused a serious

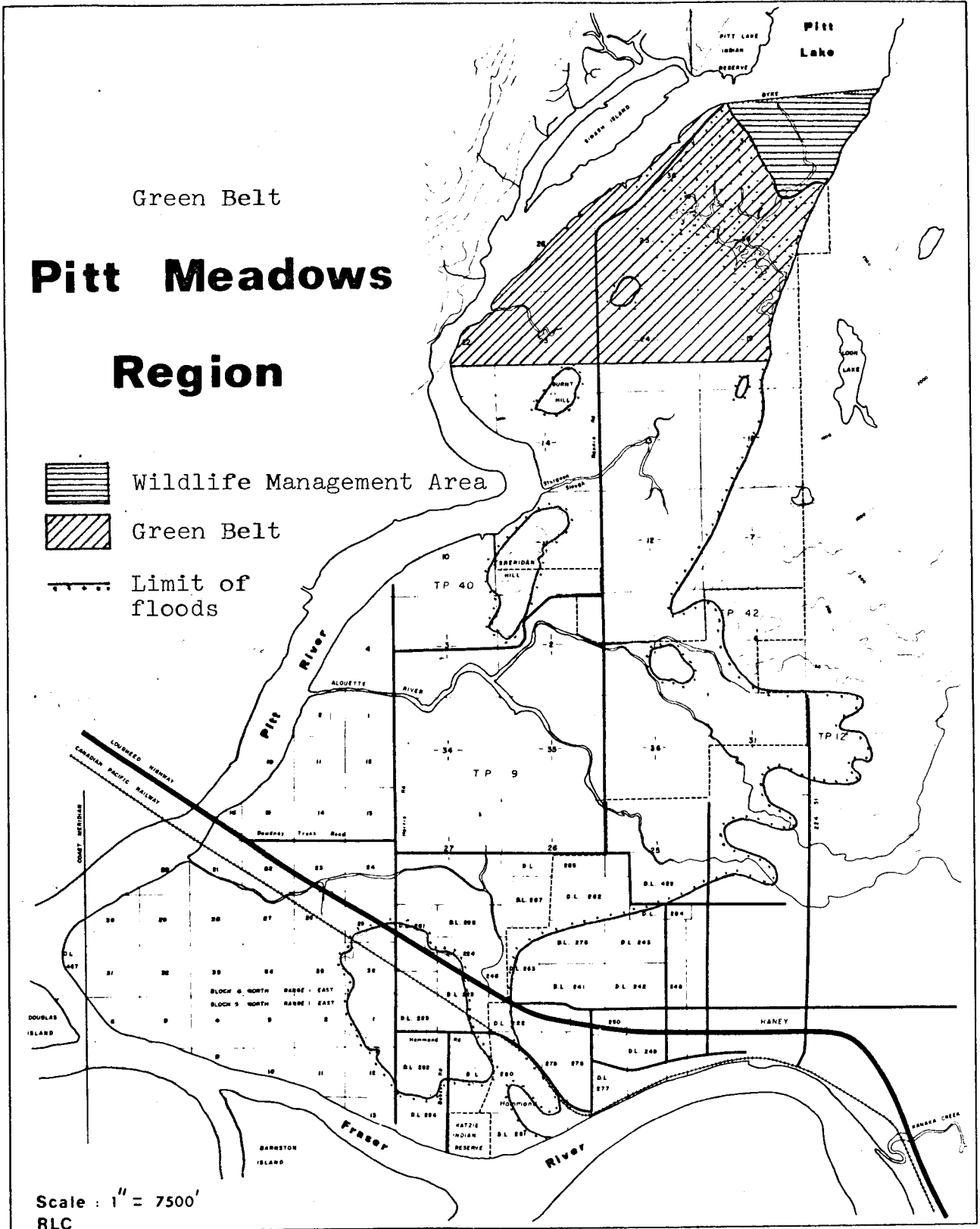
weakening of the dyke at this point, and posed a continuing threat to the security of the polder. To remove this threat the company undertook to build a great dyke across the northern end of the "V", converting it into a triangle, and preventing the build-up of wave action. It planned the work in 1955, and estimated its cost at \$100,000.³⁸ This money was raised, as indicated above, by offering shares in the company to two Vancouver men, lawyer Leon Ladner and lumber baron Walter Koerner. The company contracted the work on the dyke to its subsidiary, CBA Engineering, which began and completed the work in 1956.

Prior to the construction of this dyke Pitt Polder Limited worked out an agreement with the provincial Department of Highways on matters relating to its construction and function. The company agreed to dedicate land for a public road to the dyke, and to build the dyke sufficiently wide so that a public road could be built on top of it, while the department agreed to build a road from the south polder area to the dyke, and to pay for the extra material required and work involved in making the dyke wider than would otherwise be necessary in order to accomodate a roadway. Since the dyke would have to be three times wider than necessary in order to carry the roadway, the department agreed to pay Pitt Polder the cost of the extra fill needed. The intent of the company in making this deal was to get ready access for its equipment to the dyke-building site over four miles of its property across which no suitable road then existed. The intent of the department was to build an access road to future potential recreational

sites along the east shore of Pitt Lake. Since the dyke has been completed this project has been partially shelved. While the road to the dyke remains as public access, the dyke is closed to traffic, and no road has yet been built along the eastern lakeshore.

The company had hoped that, in exchange for building the dyke, the government would grant them (or give them the opportunity to buy) the 659 acres in the triangle of reclaimed lake that the dyke enclosed. However, this region has been obtained by the government's Fish and Game Branch as a wildlife management area.³⁹ This area is marked on the map 5-3, "Green Belt, Pitt Meadows Region" which follows. It has been left in its wild state, and forms a marshy region which attracts large numbers of migratory aquatic fowl.

The north wind still causes south-travelling waves on Pitt Lake, and although their effect has been abated by the new dyke, they batter this structure during high water each summer. To mitigate their effect, Pitt Polder has arranged with a logging company which normally ties up its log booms on the Pitt River to place these booms along the face of the dyke during the freshet. The logs soak up the effect of the waves, reduce the battering effect on the dyke, and hence lower the cost of maintenance and increase the security offered by this structure.⁴⁰



Sources: A map in the file "Pitt Polder Green Belt", in the offices of the British Columbia Land Commission; and Certificates of Indefeasible Title numbered J624E and J625E, Land Registry Office, New Westminster, B.C.

The Green Belt

The northern 3,000 acres of Pitt Polder, while it had been dyked and gravity-drained by the company in 1952 - 53, had never been completely reclaimed. The region was not pumped, and the land was left in its wild state. Small dykes separated this semi-reclaimed region from the completely reclaimed and settled land in the south of the polder. The northern region was very low-lying, and the company hesitated to become involved in the final stages of its reclamation because of the heavy costs that would be involved.

For twenty years the region remained as it had been left by CBA's dyking and drainage work. Then, in 1972, the provincial government showed an interest in the property and began negotiations to purchase it, negotiations which were completed in January of 1973.⁴¹ The interest of the government was to hold this region forever in its wild state as Green Belt land, i.e. land which would be kept in its natural state to provide rural relief to urban dwellers in the growing cities of southwestern British Columbia.⁴² The area purchased by the government extended over some 3,000 acres, and is marked on the map 5-3. It was purchased by the province for just under \$1.5 million, or \$500 an acre.⁴³ Interest in this area was prompted by the Fish and Game Branch, which wanted to preserve it as a wildlife management area, thus effectively extending the area if had acquired for this purpose in 1956 following the completion of the Pitt Lake Dyke. The exact future use of the area is not finally determined at the time of writing. Various

government departments have an interest in it, the principal contenders being the Fish and Game Branch and the Parks Branch. It is likely that most of the area will be kept as a wildlife management area to provide sanctuary to migratory aquatic fowl, principally ducks.⁴⁴

The Pitt Polder company continues to have an interest in the dykes around the Green Belt area, since these form its only defence against flooding from the north. The government agreed, as a condition of sale, to maintain these, including the Pitt Lake dyke.⁴⁵ It has fulfilled this responsibility by hiring Pitt Polder Limited as its agent to maintain these dykes. The company today bills the government yearly for its services. These northern dykes protect both the nesting areas of the Green Belt and the farmlands of Pitt Polder. In the same way the southern dykes, maintained by the company, protect both regions. The government's purchase has given the area enclosed by Pitt Polder's encircling dykes two landowners. The government has undertaken to pay the cost of protection in the north, while the company continues to pay maintenance costs for the southern defenses.

The company may be said to have both gained and lost by the Green Belt sale. It has lost three eighths of the land it purchased at Pitt Meadows, so the reclamation project of Dr. Blom has been severely curtailed. It has made a considerable capital gain, since it has recouped almost half of its \$3 million investment on rather less than half of its land, and that a portion of its property on which it has spent

considerably less than on the portion it has retained. The company has also gained by its arrangement with the government whereby it maintains its northern defenses at government expense. It can be said to have gained by the provision of these maintenance payments, and by its capital gain, and to have lost some of the vision of its reclamation.

Conclusion

The Green Belt sale indicates a degree of failure for Pitt Polder, the failure to develop the northern part of its property for twenty years. If the company had completely developed these lands in that period the government would have had no more reason to purchase them for Green Belt than any other farmlands near Vancouver. It was because these lands remained undeveloped when the Green Belt Act was proclaimed in 1972 that they immediately attracted government attention. This area was the largest single stretch of unreclaimed marshland in the vicinity of the largest urban area of the province.⁴⁷ The government was anxious to develop its Green Belt policy under its new act, and made the company a good offer for its lands. This offer matched the selling price of land elsewhere in the valley, less the estimated cost of completing reclamation.⁴⁸ The company accepted the offer because it was preferable to its two alternatives, to leave the land as it was or to complete its reclamation. The company had failed to develop this land during twenty years because of the difficulties it presented. These difficulties were no less in 1972 than in the preceding years. If the land was to be left wild, then the government might as

well have it, since it was of no use to the company, and by its sale the company would be relieved of the burden of its taxation. Blom's vision of reclaiming the whole polder had dimmed by 1972. The economic realities of reclamation costs and taxation forced his company to acknowledge a measure of defeat, and to sell off its undeveloped holdings to the government.

By its sale of Green Belt land the company became, in fact though not by original intention, a speculator, probably the most successful speculator ever to own land at Pitt Meadows.

Property it had bought in 1950 for \$6 an acre it sold twenty-two years later for \$500 an acre, and this was land which had only partially been reclaimed. In addition, it had received the promise of government maintenance on its northern defences, an added consideration to its cash payment. However, the original intention of the company had not been speculation.

It had planned to reclaim the northern region as it had reclaimed the southern part of the polder, but cost overruns for the reclamation work that was attempted made the company reconsider its plans. Lack of government action to develop flood control projects for the Fraser River may have helped push the company's costs over estimates, and can be seen as another factor in the decision not to complete development of the northern region. These lands were not left in their semi-reclaimed condition by original intention, and certainly were not left so that they could be sold back to the government for a profit. The company did not know that the government was considering a Green Belt program, nor did

it have advance notice that its northern marshlands would be considered an attractive area for Green Belt. It became a speculator unintentionally, as a consequence of its failure to develop its northern lands.

By its failure to develop the company became, unintentionally, a developer of land that was attractive to government. The secure dykes around northern Pitt Polder, and the wild state in which the land was left, made it an ideal sanctuary for ducks and other aquatic fowl. It was this feature of the land which made it attractive to the Fish and Game Branch. By beginning reclamation and by failing to complete it the company had inadvertently developed a biotic zone which attracted the interest of government.

The history of Pitt Polder's reclamation has been both similar to and different from dyking history elsewhere in Pitt Meadows. A similarity has been that both areas have needed vast amounts of capital for reclamation, far more than was originally estimated. In both areas sufficient capital was forthcoming. Initial capital in both areas was private. A difference has been that Pitt Polder's capital for cost over-runs did not come from government but continued to come from private sources.

What was the interest of private capital in Pitt Polder? The company did not expect to make much profit, and in fact has made almost none.⁴⁹ Those who invested in it sought not dividends but long-term capital gains. It was also a tax shelter, both for Canadian and Dutch investors. There would seem to be more to

the interest of Dutch investors in Pitt Polder than this, however, since capital gains and tax shelters were to be found in a number of enterprises far nearer to Holland than Pitt Meadows. It seems likely that Dutch interest was based on a national feeling for the reclamation of land. The country of Holland is largely the creation of reclamation projects. To export this skill overseas was a manifestation of national pride. The enthusiasm of Dr. Blom and his backers in Leiden for the Pitt Polder project seems to have sprung from this source. Once the project was begun their national pride would not let them write it off or appeal for government support. Indeed, as foreigners, they were hardly in a position to appeal for public support. Both from pride and from necessity they continued to supply private capital to meet escalating costs. The consequence has been the reclamation of Pitt Polder without the aid of government subsidy.

Chapter 6

Conclusion

The history of land reclamation at Pitt Meadows is a study of the relation between private enterprise and government. During the period from the beginning of dyking until today the initiative and burden of cost have moved from the local landowners to provincial and federal governments. The preservation of the lands reclaimed was realized by successive governments to be of provincial, then of national, importance. Since private enterprise was unable to secure them the government undertook the task. Government has not yet taken complete responsibility for reclamation. It has assumed capital costs, but the burden of maintenance remains with local landowners. It is possible that in future maintenance costs may become a government responsibility also. A precedent for such a move has been set by the province's assumption of maintenance costs for the dykes which protect Pitt Polder from the north.

The dyking of Pitt Meadows by speculators may be seen as a positive example of private enterprise, the private interest working for the public good. Government intervention to assist private enterprise complete its dyking program in 1897 and 1898 may be seen as in the best traditions of paternalistic government, supporting private enterprise for the public good. However, government assistance to private enterprise which no longer works for the public good is hard to justify. This latter situation was achieved by the Dyking Assessments Adjustments Act of 1905.

There is an irony about this step which the provincial government took to assist the owners of Pitt Meadows (and other Fraser Valley) lands. Farm land was a rare resource in British Columbia, and presumably it was its importance as a rare resource which led the government to intervene to prevent its reversion to the Crown. But by preventing this reversion the government preserved a system (speculation) which held the land back from becoming farm land. If farm land was such a precious resource why did the government not permit Pitt Meadows land to revert to the Crown, and then make some arrangement to put it to productive use? This could have been achieved by a lease arrangement (as was done at Pitt Polder fifty years later), or by permitting the land to be taken up as homesteads (in co-operation with the federal government). The province needed food-producing land. A provincial Royal Commission on Agriculture in 1913 reported that British Columbians spent \$58 million on food in that year, and produced only \$38 million of this.¹ The province imported \$20 million of food. Excluding tree fruits, vegetables and cereals, which do not grow well at Pitt Meadows, over \$18 million of food imported into British Columbia in 1913 could have been grown there. The land was near to principal markets, was served by good transportation facilities, was dyked and drained. Yet at the time of the Royal Commission's report over eighty-five per cent of it was held for speculation, a direct consequence of the provincial government's action in 1905.² In a province which was not (nor has become) self-sufficient in food the government spent money to reclaim farmland, but spent it in such a way that they preserved a system which kept farmland from productive use.

Why did the government take this action? The claim by McBride that speculators "were men who in days gone by had manifested their faith in the country by investing largely in the lands of the Fraser Valley, and who, through long and profitless years, had maintained their holdings and paid the taxes thereon" is somewhat of an overstatement of the true position.³ Many of the speculators holding land in 1905 had bought their land from the Crown for \$1 an acre, none had paid more than \$5.75. They had paid very little Wild Land Tax, until 1905 never more than five cents an acre.⁴ As for dyking taxes, the amount paid was also very small, and the costs of reclamation remained largely as an outstanding debt due to the government. McBride's other contention, that it would be impractical to do other than treat all landowners equally, does not ring true.⁵ Following the 1948 flood the FVDB did not treat all landowners equally. It rebuilt dykes around districts with populations, but did minimal work around districts which were unpopulated. Since few people were farming at Pitt Meadows in 1905, none entirely on the flood plain, a similar criterion could have been used for withholding assistance there while giving assistance to districts which did contain settlement. The action of the government in 1905 to protect the interests of speculators seems to indicate that it took this action because these speculators held some influence over it. This is hard to prove but seems likely.

Speculators were among the wealthier and more influential people of British Columbia, and the converse was also true, that the wealthier and more influential were speculators. One member of

the provincial legislature in 1905, J.F. Garden, a speculator at Pitt Meadows, acknowledged his interest and refrained from voting on the Dyking Assessments bill.⁶ His was an open interest. The interests of others may have been hidden behind the investments of relatives, friends, companies, or political supporters. Other government members or supporters may have had a general interest in speculation, holding speculative interests elsewhere which might have seemed threatened if those at Pitt Meadows were destroyed. To permit the wholesale reversion of speculative property to the Crown might have been seen as a threat to the whole principle of the unconditional ownership of property.

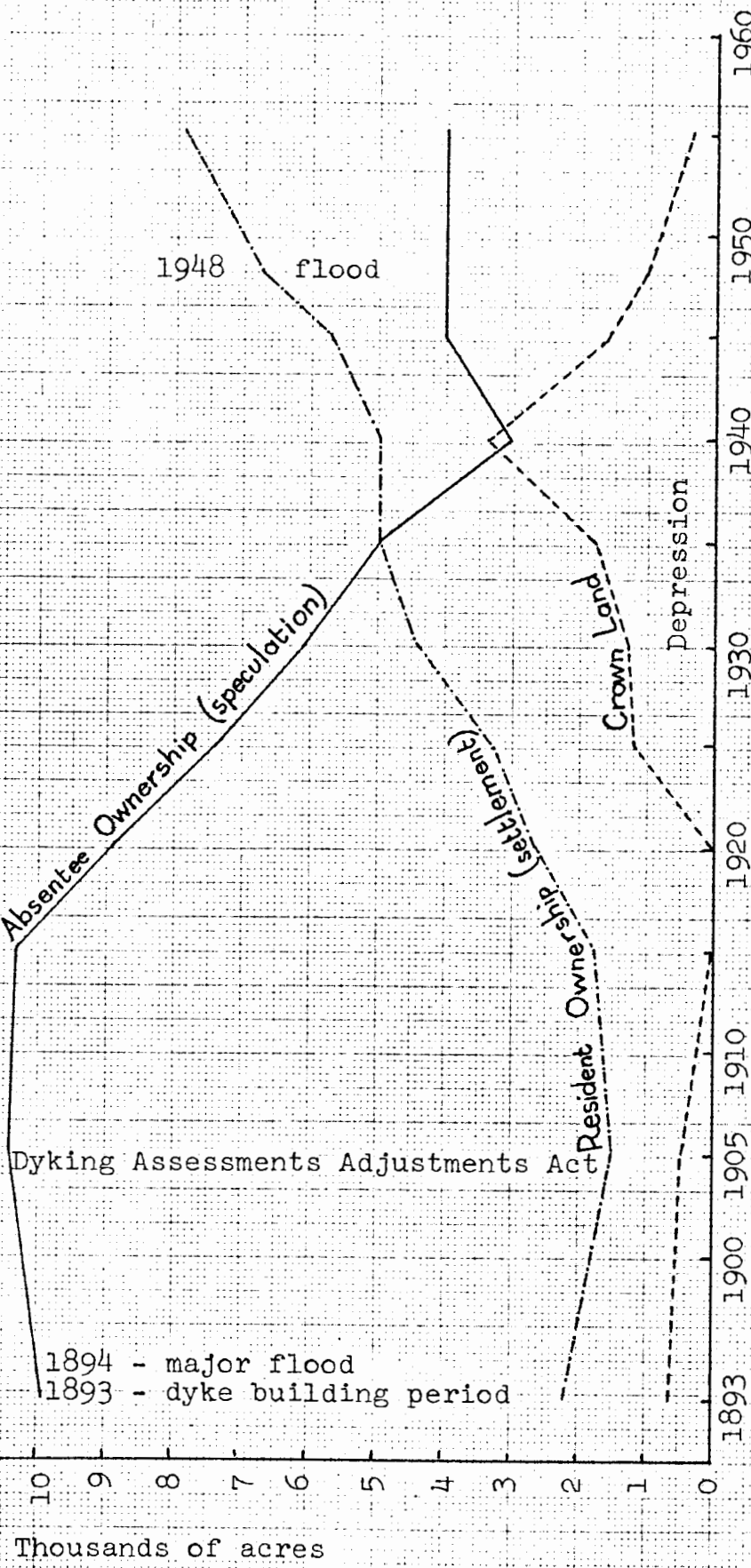
It would seem that the government had three choices at Pitt Meadows when the dyked-land owners could not pay their dyking taxes. It could have taken an extreme laissez-faire attitude and let the land suffer a double reversion, both to the Crown and to the wilderness. It could have taken the position suggested above and let the land suffer a single reversion, to the Crown, then arranged for it to be settled. Or it could protect the interests of the landowners and prevent any reversion at all, by reducing the burden of the dyking tax. It chose to take this latter course. Such a decision was highly favorable for speculators; they kept their land and their taxes were reduced. Government claims that its action was motivated by a sense of gratitude to landowners for investing in provincial land, or for paying taxes, or for the impracticality of not treating all landowners alike, must be compared to the consequences of the 1905 act, which permitted (or even encouraged)

the continuance of speculation at Pitt Meadows (see graph 6-1). The result of the 1905 act was that the majority of the lands at Pitt Meadows continued to be held by speculators. They held eighty-five percent of the land for a further ten years, and their interest did not drop to less than half of the acreage until the Depression, a quarter of a century later.

The change from speculator to settler ownership within dyking districts at Pitt Meadows has not been achieved by the planned policy of the provincial government, although the consistent government policy of lending money to dyking districts when needed may have been a factor. The graph of land ownership (numbered 6-1) indicates that the proportion of speculators' property at Pitt Meadows began to decline in 1915, and reached its lowest point at the end of the Depression, in 1940, when it was only twenty-six per cent of the land held. After that speculator-ownership of Pitt Meadows lands again increased, to stabilize at about thirty-three per cent of the total acreage. Various forces have affected the amount of speculative ownership. One such force has been municipal taxes. The graph numbered 6-2 indicates the increase of municipal taxes on one selected section during the period 1874 - 1955. The increase in taxes which occurred after 1905 forced landowners to subdivide and sell part of their properties. The graph number 6-1 indicates that these sales at first were to other speculators. As taxes continued to climb speculators on subdivided lots were forced to sell, and after 1915 they began to sell to settlers. Other factors have also been at work to drive out speculators. The increase in population in the Lower Mainland has been responsible for much

Graph 6-1

Land in the Municipality of Maple Ridge (and before 1914, in the territory which became the municipality) held by Absentee Owners, by Residents, and by the Crown, plotted generally for every fifth year.

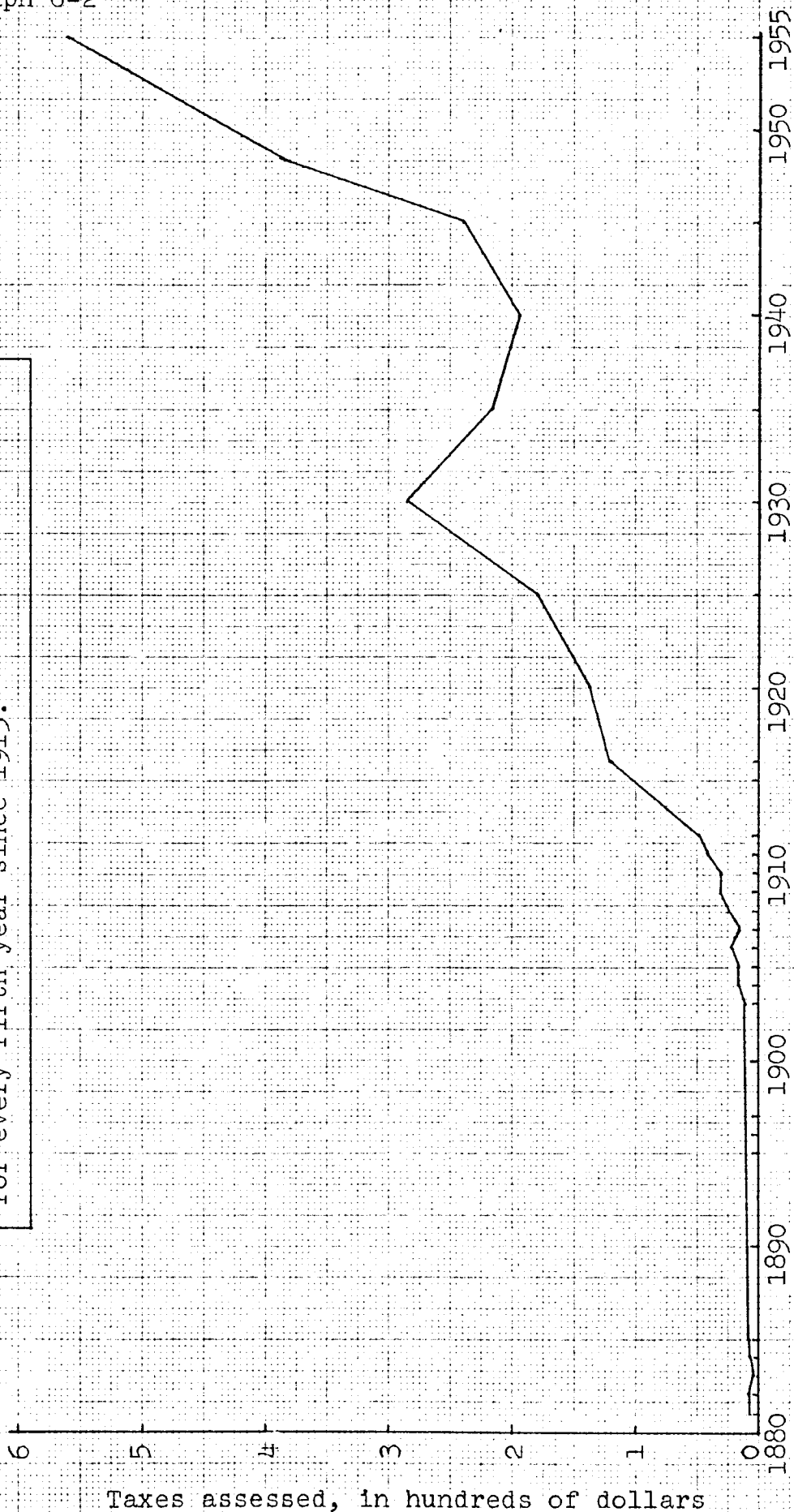


Sources: Tax Records of the Municipality of Maple Ridge (1893)
 Tax Records of the District of New Westminster (1905)
 Tax Records of the Municipality of Pitt Meadows (since 1914)

METRIC

Graph 6-2

Tax Payments Assessed on B6NR1E, Section 27 ("Crease Section") plotted where data available, and generally for every fifth year since 1915.



Sources: Tax Records of the Municipality of Maple Ridge (before 1896)
 Tax Records of the District of New Westminster (1897 - 1913)
 Tax Records of the Municipality of Pitt Meadows (after 1914)

settlement, as urban dwellers sought homes in the country away from the "concrete jungle". Transportation has become easier, and the spread of utilities has made country living as comfortable as life in the city. The demand for dairy produce has increased with the increase in population, and dairy farmers have purchased much of Pitt Meadows land, fulfilling the 1860 prophecy of Governor Douglas. All these factors have been largely uncontrolled by government, and certainly were not designed to reduce speculation. The government has been content to let land use take its course without any clearly designated policy. The passage of land from speculative to productive use has happened by the chance play of demographic, economic, and other forces.

The initiative for dyking at Pitt Meadows (and throughout the valley) came from private enterprise, and government action until 1948, was designed to prop up a system of private responsibility for reclamation. This course of action may reflect a common political philosophy in Canada which favors rugged individualism, backed up with government support where necessary. Such a philosophy might be called John A. Macdonald socialism. It permits and encourages private enterprise by all means, short of the gift of money, to begin great enterprises which are held to be in the public good. When the project is well under way and those involved find they are short of capital, then the government steps in to rescue the project, first by the supply of money (either by loans or by guaranteeing the interest on loans), and then, if necessary, by taking over absolute control. This

latter step is undertaken most reluctantly, since government control might involve continuing government subsidy. This policy, of government support for private enterprise, was established in eastern Canada from the beginning of the railway-building period.⁷ John A. Macdonald spread the policy to the West with the building of the CPR.⁸ Subsequent administrations have continued this policy by their support of other railroads across Canada.⁹ The reclamation of Pitt Meadows is another example of the working out of this policy. Reclamation projects there were undertaken by private enterprise encouraged by permissive provincial legislation, and, in the case of the BCDD, by the dominion government. When landowners could no longer afford the rising costs of these projects they were rescued by the provincial government, which first guaranteed loans, then established a financing authority, took over the actual reclamation work, and provided a subsidy. The province continued to finance reclamation improvements during the 1920's and 30's, and postponed repayments during the Depression and the war. The program suggested by Clement in 1946 was a continuation of this policy of propping up landowners who were supposedly responsible for their reclamation works. This was a somewhat unrealistic assumption by that time, as it was apparent that they would never be able to pay these costs. The flood of 1948 led both federal and provincial governments to assume the whole burden of responsibility.

The program of the FVDB was a joint government program for the securing of land from flood with no suggestion that landowners help foot the bill. The system of dyking debt repayment continued for some years after 1948, but from that time the whole thrust of reclamation programs indicated a new philosophy by government. The dominion and the province had taken the initiative in land reclamation. The 1968 agreement for flood control between the two governments, while it contained provision for local participation, was modified six years later to eliminate this factor. Land reclamation at Pitt Meadows, and throughout the Fraser Valley, has become recognized by the senior governments as a provincial and national responsibility.

The provincial government has been remarkably consistent in its attitude that private enterprise must take the lead in reclamation programs. The first dyking act, of 1873, permitted individual landowners to combine to form dyking districts, but made no provision for government initiative. Eighty years later, in 1952, the provincial government declined to take the lead in reclaiming Pitt Meadows Number 1, preferring still to let private enterprise take the lead rather than develop the land itself. Its aim was the same in 1952 as in 1873, to encourage the rugged individual to reclaim the land, not to replace him.

The provincial government has also been consistent in supporting the private owners of land in dyking districts. Even John Oliver,

who while in opposition had tried to block the passage of the Dyking Assessments Adjustments Act on the grounds that it encouraged speculation, during his term of office as premier (1918 - 1927) supported the formation of the Maple Ridge Drainage District, which greatly improved the value of Pitt Meadows land at a time when over sixty per cent of the area benefitted was held by speculators.¹⁰ There are some differences between the two situations: the 1905 act gave aid to speculators while the 1923 act loaned money to landholders only sixty per cent of whom were speculators, yet the two situations have similarities. It was becoming apparent by 1923 that money loaned to dyking districts was a thinly disguised form of aid, since these districts gobbled up government funds faster than they repaid them; and the majority speculator interest in the drainage district would gain greatly by the money spent on improving the drainage of its land. Oliver seems to have come to the realization, once in power, that if he was to be a rugged individualist (as he prided himself on being) he had to support the concept of the private unconditional use of land. A man's property was his, to do with as he wished. To believe otherwise, to believe, for example, that the ownership of land should be dependent on beneficial use, smacked of socialism, and suggested that the land was not owned by individuals but was held in trust for the benefit of the whole community. The interdependence suggested by this concept was at total variance with the idea of rugged individualism. Those in power in British Columbia have consistently supported the latter idea, and its corollary,

the unconditional ownership of land. They have believed that land in this province should not be reclaimed by government but by the hardy pioneer, even if that pioneer was a speculator and reclaimed the land vicariously not by his brawn but by his money, and even if the money he used was largely borrowed from the government and had little chance of ever being repaid. Oliver, once in power, reconciled himself to this pattern of government support for the reclamation districts. Such a pattern, while it was contrary to his attitude towards speculation, was aligned with his attitude towards individualism.

Oliver's 1905 position in opposing aid to speculator districts while urging the government to help settler districts was intellectually untenable. One cannot believe in individual enterprise yet differentiate between giving government aid to speculators and settlers. Landholders are landholders. While their alienation of land from the Crown had been different (speculators having paid cash while homesteaders had acquired ownership through the condition of settlement) once the land was granted by the Crown its use by both was unconditional. The rugged individual settlers struggling to make a living from their land may have been deserving of government sympathy, yet the same government which granted them their land had permitted them to become speculators also, by giving them the right to dispose of it as they wished. All land was, or could be said to be, held for potential speculation, and all landowners were

potential speculators. The government could have granted aid to the Chilliwack farmer and withheld it from the Pitt Meadows speculator, only to see the Chilliwack farmer sell his farm the next day for a tidy profit. Government policy had made land a commodity with a dollar value, which could be bought and sold unconditionally. Such a policy was the development of the policy of rugged individualism, and speculation was the price a society paid for granting this freedom.

Did speculators provide a useful service for British Columbia and Canada by reclaiming Pitt Meadows? By dyking the land they provided potential farmland. By their failure they drew in government support. They provided a disservice by keeping land from productive use. This thesis does not criticize speculators for using their land for their own interests. In a free enterprise society free enterprisers must seek what advantages they can. It does criticize the government for protecting their interests. The joint federal-provincial program of the FVDB set a pattern of assistance to dyking districts that contained populations. If the provincial government in 1905 had followed this principle, then speculators would have been largely flushed out of Pitt Meadows, and the government would have had the opportunity to settle the region. If this had happened Pitt Meadows would have developed far earlier than it did as a farming region. As it was, the action of the government in 1905 ensured that, for much of its history, Pitt Meadows' land lay unproductive in

the hands of speculators. That this land has become used for farming has been accidental to the policies of the provincial government.

The general policy of the provincial government in encouraging private enterprise to reclaim Pitt Meadows has not been an effective policy. It has had to be constantly bolstered with government support, and the dykes built under this policy were inadequate or barely adequate. Reclamation of Pitt Meadows needed far more money than the speculators who invested in the programs there were able or willing to invest. Truly effective reclamation programs needed vast amounts of capital, such as that provided by the federal and provincial governments to the FVDB, or by the Leiden Administration Office to Pitt Polder.

Why did the provincial government support speculators in the reclamation of Pitt Meadows? The answer seems to be because it believed in rugged individualism. It based its policies on a frontier myth, that the wilderness would be reclaimed for the province by this rugged individual, and believed that government's function was to encourage him in his work. It believed the government takeover of reclamation projects would discourage him, or undermine his initiative. Government was aware that the pioneers of Pitt Meadows were speculators, John Oliver saw to that, but they were the only rugged individualists the government had there to fit the pattern of the frontier myth. Government supported their reclamation schemes because they

were its surrogate settlers of the marshy frontier. Governments of all political persuasions supported their tottering enterprises, taking over dyke-building, arranging financing, forgiving debts, and making whatever unrepayable loans were necessary. The province practically took over the work of reclamation, but it didn't quite. It preserved the myth that the enterprise was the landowners' until 1948, when direct government intervention was necessary with amounts of capital that the myth could not be stretched to support. The myth, however, died hard. In 1952 the government sold lands to a private interest rather than complete reclamation itself. It continued to extract token payments for pre-1948 dykes until 1962, and did not finally acknowledge that dyking debts were cancelled until 1970. It still places the responsibility for maintenance on landowners, the lingering vestige of a concept that was once its preferred pattern of land reclamation.

Appendix A

Dyking and Drainage Tax Rates per Acre, Dyking Districts at
Pitt-Meadows, Various Dates

Year	Maple Ridge Dyking District	Maple Ridge Drainage District	Pitt Meadows Dyking District #1	Pitt Meadows Dyking District #2
1922	High 1.32 Low 2.22		2.23	2.42
1924	High 1.57 Low 2.65		2.05	3.22
	<u>1924 breakdown</u>			
	High -			
	capital .52		.76	.77
	maintenance 1.05		1.29	2.45
	Low -			
	capital .87			
	maintenance 1.78			
1930	2.60	.98	3.84	3.19
1935	.73*	.15*	1.15*	1.62*
1940	1.55*	.40*	.76*	1.93*
1945	1.61*	.40*	.85*	2.46*
1946	2.38	.17 - .68	1.35	3.23
1947	2.00	.17 - .68		6.75
1950	2.35	.17 - .68	----	3.75
	<u>1950 breakdown</u>			
	capital .60	.07 - .28	----	.75
	maintenance 1.75	.10 - .40	----	3.00
1952	3.00	.17 - .68	----	4.00

* = maintenance payments only. Capital debt payments were excused in the period 1933 - 1945

Sources: Inspector of Dykes Annual Reports for the years indicated.

List of References

Notes:

The references to Inspector of Dykes Annual Reports, for various years, are to the original typescripts of these reports, in a file "History of B.C. Dyking from Annual Reports, etc." in the office of the Inspector of Dykes, New Westminster, B.C.

B.C.S.P. = British Columbia Sessional Papers

S.B.C. = Statutes of British Columbia

P.A.B.C. = Provincial Archives of British Columbia

Chapter 1

1. R.E. Gosnell, "History of Farming" in Canada and Its Provinces, editor Adam Shortt, Volume XXII, Toronto, T.A. Constable, 1914, p. 539.
2. Bruce Dixon, Provincial Inspector of Dykes 1921 - 1953, "Reclamation by Dyking and Drainage, Fraser River Valley," typescript in file: "History of B.C. Dyking from Annual Reports, etc.", p. 1.
(In the office of the Provincial Inspector of Dykes, New Westminster, B.C.)
3. Douglas to Newcastle, May 31, 1860, in Papers Relating to the Affairs of British Columbia, part IV, London, H.M.S.O., 1862, p. 8.
4. John Edgar Gibbard, "Early History of the Fraser Valley, 1808 - 1885", unpublished MA thesis, UBC, 1937.

George Brooks White, "A History of the Eastern Fraser Valley Since 1885", unpublished MA thesis, UBC, 1937.
5. Robert Edgar Cail, "Disposal of Crown Lands in British Columbia 1871 - 1913", UBC thesis, 1937, published as Land, Man, and the Law: the Disposal of Crown Lands in British Columbia 1871 - 1913, Vancouver, University of British Columbia Press, 1974.

F.W. Laing, "Colonial Farm Settlers on the Mainland of B.C. 1858 - 1871", typescript 1939, P.A.B.C.

Phyllis Mikkelsen, "Land Settlement Policy on the Mainland of British Columbia 1858 - 1874", unpublished MA thesis, UBC, 1950.
6. W.L. MacKen and D'Arcy J. Baldwin, Progress of the Fraser Valley Rehabilitation Authority, Interim Report, Chilliwack, (Province of British Columbia), 1949.

J.B. Carswell (Chairman), Final Report of the Activities of the Fraser Valley Dyking Board, Vancouver, 1950.

Fraser River Flood Control Program Information Guide, Victoria, Canada and British Columbia, 1958.
7. F.M. Clement, Dyking, Drainage, and Irrigation Commission Report, Victoria, Queen's Printer, 1947, p. 19.
8. Ibid., pp. 19 - 20
9. S.B.C. 1946, c. 35. This act, "An Act to Amend the Irrigation Assistance Loan Act", raised the amount available for loan to irrigation districts from a previous \$500,000 to \$1 million.

Chapter 2

1. Douglas to Newcastle, October 18, 1859, in Papers Relative to the Affairs of British Columbia, part III, London, H.M.S.O., 1860, p. 67.
2. Douglas to Provincial Recording Magistrates, April 5, 1861. British Columbia. Colonial Secretary. Correspondence Outward, July 1860 - September 1861, Vol. 2. MSS, P.A.B.C.
3. British Columbia, List of Proclamations for 1858 - 1864, a bound collection of printed acts, P.A.B.C., p. 27.
4. R.E. Cail, "Disposal of Crown Lands in British Columbia 1871 - 1913," unpublished MA thesis, UBC, 1956, p. 29.
5. Lytton to Douglas, August 14, 1858, in Papers Relative to the Affairs of British Columbia, part I, London, H.M.S.O., 1859, pp. 44 - 46.
6. Douglas to Lytton, February 19, 1859, in ibid., part II.
7. Hollis Lynch, "A Biography of Sir Joseph Trutch," unpublished BA essay, University of British Columbia, 1960, p. 26.
8. Frederick W. Laing, "Colonial Farm Settlement on the Mainland of British Columbia," typescript, 1939, P.A.B.C., p. 6.
9. Charles Good obtained a Crown Grant (CG) on October 29, 1863, for this land, which was B6NR1E, sections 10 and 11. He paid \$1.21 an acre. This CG is indexed #20/R at the Department of Lands, Victoria, B.C. Conversions from sterling to decimal currency are as given in the Indexes of Crown Grants.
10. Victoria British Colonist, January 12, 1860.
11. Begbie to Douglas, April 30, 1860. Correspondence of Matthew Baillie Begbie, 1860. MSS, P.A.B.C., folio 142 (c).
12. The price of land was dropped by the Country Lands Act, proclaimed by Governor Douglas on January 19, 1861. British Columbia, List of Proclamations for 1858 - 1864, P.A.B.C., p. 101.
13. The 1861 purchaser was William Holmes, who bought 132 acres in B6NR1E, partial sections 2 and 3 beside the Pitt River, at \$1.01 an acre. This data from the CG in the Department of Lands, Victoria, B.C.

14. Laing, "Colonial Farm Settlement on the Mainland of British Columbia," p. 7.
15. Victoria Gazette, June 2 and 30, 1859.
16. Flugel and Faulkner, Reading in Economic and Social History of the United States, New York, Harper Brothers, 1921, p. 186.
17. British Columbia, List of Proclamations for 1858 - 1864, P.A.B.C., p. 69.
18. The Country Lands Act, January 19, 1861, in ibid. This act dropped the price of all country land in British Columbia, whether surveyed or not, to the upset price of \$1 an acre.
19. Pre-emption Amendment Act, January 19, 1861, in ibid.
20. Pre-emption Consolidation Act, September 10, 1861, in ibid.
21. The CG's for this land are numbered 1768 and 1769, Department of Lands, Victoria. Much information concerning Newton's purchase is attached.
22. New Westminster British Columbian, November 21, 1861.
23. There is evidence from correspondence attached to the CG of W.J. Harris for lot 283 that this land had previously been pre-empted and deserted. Also the existence of lots 285, 286, and 429, which were purchased from the Crown ten years after they were surveyed, is mute testimony to their desertion.
24. Lillian Cope, "Colonel Moody and the Royal Engineers in British Columbia," unpublished MA thesis, University of British Columbia, 1940, p. 207, and appendix VIII, p. 258.
25. The discharged Royal Engineers who purchased Crown Land at Pitt Meadows were:

Name	Property Purchased
James Normansell	B5NR1E, section 1
Louis Bonson	B5NR1E, section 2 ⁴
Alfred Howse & Charles Schmidt	B6NR1E, section 2
James Lindsay & John McKenney	B6NR1E, sections & 36
Colonel R.C. Moody	B6NR1E, sections & 23

This information from the CG's, Department of Lands, Victoria; and names of Royal Engineers from Cope, appendix IX, pp. 226 - 227.

26. Laing, p. 8.

Lot Number	Pre-emptor	Date of Survey	Date of Crown Grant	Lapsed Time
246	John Bowron	1874	1889	15 years
261	James Cunningham	1872	1874	2 years
280 &	William Newton	1874	1877	3 years
281	William Newton	1874	1877	3 years
282	William Brough	1874	1874	5 years
283	W.J. Harris	1874	1879	5 years

28. Pre-emptive Payment Ordinance, March 1, 1869, British Columbia Ordinances, 1869, P.A.B.C.

29. Cail, p. 51.

30. The Terms of Union of British Columbia with Canada are attached to the Order-in-Council, dated at Windsor, May 16, 1871, which ordered that the "Colony of British Columbia shall be admitted into and become part of the Dominion of Canada, upon the terms and conditions set forth." In The Revised Statutes of British Columbia 1897, Victoria, Queen's Printer, 1897, pp. ciii - cviii.

31. Terms of Union, article 11.

32. Georges Etienne Cartier stated in the House of Commons during debate of the Terms of Union that the forty-mile-wide Railway Belt would contain 24,000 square miles, or 50,360,000 acres which, sold at \$1 an acre, "Would equal a grant of \$50,360,000 towards the construction of the railway." Parliamentary Debates 1871, House of Commons, p. 662 Cail, p. 223, notes that 24,000 square miles is only 15,360,000 acres.

33. Terms of Union, article 11.

34. Edward A. Sharpe purchased 480 acres and William Clarkson (the first mayor of New Westminster) purchased 820 acres. Details from CG's and attached papers. Biographical detail from F.W. Howay, British Columbia, the Making of a Province, Toronto, Ryerson Press, 1928, p. 164.

35. Reports of surveys in the Reports of the Chief Commissioner for Lands and Works, printed for the year previous in B.C.S.P. 1875, p. 445, and B.C.S.P. 1876, p. 531.

36. Wade, Wilder, and Wade, A History of the United States, Boston, Houghton Mifflin, 1966, p. 430. The U.S. Homestead Act became law in 1862.

37. Statues of Canada 1872, 35 Vic., c. 23, sec. 33.
38. Ibid., section 33, sub-section 7.
39. Land Act 1874, S.B.C. 1874, c. 2.
40. The homesteader was Thomas Ovens. He obtained his certificate of improvement in July 1881, his CG in August, and in October sold out. This information from the Index of Crown Grants, Department of Lands, and from the Register of Absolute Fees, Land Registry Office, New Westminster.
41. Cail, pp. 58 - 61.
42. Railway Belt Act, Revised Statutes of Canada 1906, c. 58, pp. 1125 - 1126.
43. S.B.C. 1873, c. 10.
44. Henry Gauthier obtained a CG for B6NR1E, section 31, in March 1892, and sold this land in June of the same year. Theophile Gauthier obtained a CG for B6NR1E, section 25, on October 31, 1890.

This information from the tax records of the Municipality of Maple Ridge, and from the Register of Absolute Fees, Land Registry Office, New Westminster.

45. From the tax records of the Municipality of Maple Ridge.
46. Details from the Oppenheimer Papers, Vol. 12, folio 3, in Vancouver City Archives, and see below in chapter on dyking.
47. David Oppenheimer is quoted in the New York Mercantile and Trade News, August 13, 1892, as saying, "I am also president of the British Columbia Drainage and Dyking Company Limited, which is reclaiming 17,000 acres of the finest land in the country, and which will readily bring \$100 an acre when protected from annual floods."

This clipping from the Oppenheimer scrapbooks, Oppenheimer Papers, Vol. 1.

48. Census data from Ninth Census of Canada 1951, Vol. 10, General Review and Summary Tables, Ottawa, Queen's Printer, 1956, Table 1, pp. 1 - 4.
49. Data from David Oppenheimer (Mayor), Vancouver City, Its Progress and Industry, with Practical Hints for Capitalists and Intending Settlers, Vancouver, News Advertiser, 1889, p. 15.

and from Henderson's City of Vancouver Directory 1908, introduction.

50. Prices of land sold by the Crown colonial and provincial are indicated on the Crown Grants. The price of land sold by the dominion is not recorded on the record of dominion fiats kept at the Department of Lands in Victoria. However, it is unlikely that the price paid by individuals exceeded the price paid by the BCDD of \$5.75 an acre. In 1891 the provincial price for first class land was \$5 an acre, second class (a category which included irrigated and dyked land) \$2.50 an acre. This information from Cail, pp. 79 - 80.
51. In 1881 the Wild Land Tax in the Municipality of Maple Ridge (which at that time included Pitt Meadows) was five cents an acre. Charles Good, with 209 acres, paid only \$10.45 a year. Twenty years later the taxes on this land had risen to only \$25 a year. This data from the tax records of Maple Ridge (for 1881) and New Westminster District (for 1901).
52. These calculations are based on acreages of land below flood level noted on "Plan of Part of Township 9 in New Westminster District, shewing High Water Mark of 1882, the location of the proposed dyke, and the area to be reclaimed", by Garden, Hermon and Burwell, Surveyors, Vancouver 1893, P.A.B.C.
53. Cail, appendix, pp. 453 and 455 (Tables II and IV).

Chapter 3

1. J.L. MacDonald (Provincial Inspector of Dykes 1953 - 57), "History of Dykes and Drainage in B.C.", mimeographed report in the file "History of B.C. Dyking from Annual Reports, etc." in the office of the Inspector of Dykes, New Westminster. p. 1.
2. Bruce Dixon (Provincial Inspector of Dykes 1921 - 53), "Reclamation by Dyking and Drainage, Fraser River Valley", typescript in file quoted above, p. 1.
3. Ibid., p. 7.
4. New York Mercantile and Trade News, August 13, 1892 (Clipping in the Oppenheimer Papers, fol. 1, Vancouver City Archives).
5. In 1885 the region that became the City of Vancouver held less than 500 people. The population rose rapidly in subsequent years as follows:
1887 - 2,000; 1889 - 11,000; 1891 - 13,000.

This data from David Oppenheimer, Vancouver City, its Progress and Industries, with Practical Hints for the Intending Settler, Vancouver News Advertiser, 1889, p. 15;

and from Henderson's City of Vancouver Directory 1908, introduction.

During the decade of 1881 - 1891 the population of the Lower Fraser Valley rose from 8,000 to 41,500.

This data from Ninth Census of Canada, 1951, Vol. 10, General Review, Table 1, pp. 1 - 4, and Summary Tables, Queen's Printer, Ottawa, 1956.

6. Oppenheimer, p. 29.
7. Details of David Oppenheimer's career are from the Oppenheimer Papers in the Vancouver City Archives.
8. Details of Mohun's life from Phyllis Mikkelsen, "Land Settlement Policy on the Mainland of British Columbia 1858 - 1874", unpublished MA thesis, UBC, 1950, p. 192; miscellaneous correspondence in Lands and Works Department, Inward Correspondence 1871, Ms., P.A.B.C.; and from Mohun's surveyors notebooks, Department of Surveys, Government of British Columbia.
9. E.O.S. Scholefield and R.E. Gosnell, A History of British Columbia, B.C. Historical Association, Vancouver and Victoria, 1913, section 1, "Sixty Years of Progress in British Columbia"
10. Oppenheimer Papers, Vol. 12, folio 3, p. 212.
11. Ibid., p. 179.

12. The shareholders of the BCDD are listed in the Oppenheimer Papers, Vol. 12, fol. 3, p. 181. They were:-

David Oppenheimer*	A. Morrison
J.W. Sexsmith*	T.S. Higginson*
A.W. Vowell	J.M. Browning
Edward Mohun*	D.M. Eberts
J.W. Pike	W.D. Burdis (secretary)
D.H. Andrews	L. Donect.
Thomas Dunn	C.A. Vernon
John Oppenheimer	T.F.M. Guigan
J.F. Garden*	R.H. Alexander
N. Thompson	Western Dredging Company (MacLean Brothers)

* indicates that these people held land at Pitt Meadows prior to the formation of the BCDD, as indicated by the Tax Assessment Books, Municipality of Maple Ridge.

13. Dixon, p. 6.
14. Ibid. p. 6.
15. Ibid. p. 6.
16. Ibid. p. 5.
17. Williams British Columbia Directory 1883, R.T. Williams (publisher), Victoria, 1883, p. 254.
18. Tax Records for the Municipality of Maple Ridge for this period indicate that very few cattle or other livestock were held on lots owned by Lindsay, McKenny, or Mohun, on the land between Pitt Meadows and Maple Ridge. On the other hand the Cooks and Callaghans ran sizable herds of between twenty and thirty cows, plus other livestock.
19. The Drainage, Dyking, and Irrigation Act 1873, S.B.C. 1873 number 10.
20. Ibid., para. 2.
21. Ibid., paras. 7 and 8.
22. Ibid., paras. 4 and 14.
23. Ibid., para. 34.
24. S.B.C. 1881, c. 9: S.B.C. 1882, c. 4: S.B.C. 1892, c. 16.
25. W.J. Harris was chosen first warden (or mayor) of Maple Ridge, the municipality that then included Pitt Meadows, in October 1874. He also served as warden in 1875, 1887, and 1890. He served as municipal councillor in 1880, 1885, and 1886. These details are from the Maple Ridge Municipal Council minutes.

26. Weekly World, Vancouver (newspaper), Thursday, February 19, 1891, p. 3.
27. Maple Ridge Municipal Council, Minute Book Number 2, p. 205. Meeting of March 7, 1891.
28. Ibid. p. 206.
29. Ibid. p. 208.
30. Maple Ridge Municipal Council, Minute Book Number 2, p. 216. Meeting of April 4, 1891.

The names of those voting were:

Yeas: Reeve Hector Ferguson, Councillors Laity and Dohack.
Nays: Councillors Dockstader and Kennay.

Note: Kennay was the only one who held land on the flood plain.

31. Bruce Dixon, "Pitt Meadows Dyking Affairs", a typescript in the office of the Inspector of Dykes, New Westminster, p. 3.
32. Ibid. p. 3.
33. S.B.C. 1894, c. 12.
34. S.B.C. 1897, c. 12.
35. Dixon, "Reclamation by Dyking and Drainage, Fraser River Valley", p. 4. Actual 1898 debt equalled \$79,938.
36. Ibid. p. 5. Actual 1898 debt equalled \$185,364.
37. S.B.C. 1898, c. 17.
38. Stated in the preamble to the Dyking Assessments Adjustments Act, 1905. S.B.C. 1905, c. 20.
39. Dixon, "Reclamation by Dyking and Drainage, Fraser River Valley", pp. 4 and 5.

The actual amounts were: BCDD districts \$88,873.
MRDD \$221,981.

40. S.B.C. 1905, c. 20.
41. Ibid. preamble.
42. Ibid., section 4.
43. James Morton, Honest John Oliver, the Life Story of the Hon. John Oliver, Premier of British Columbia 1918 - 1927, London, Dent, 1933. pp. 38 - 47.
44. Victoria Colonist, March 21, 1905.

45. The bill as first introduced reduced the indebtedness of dyking districts as follows:

Maple Ridge ("speculator") from \$221,981 to \$127,396, down 43%. (Oliver claimed 65%)

Coquitlam ("speculator") from \$151,280 to \$57,988, down 62%. (Oliver claimed 65%)

Pitt Meadows Number 1 and Number 2 ("speculator") from \$88,873 to \$34,868, down 61%. (Oliver claimed 65%)

Matsqui ("farmer")* from \$209,915 to \$150,383, down 28%. (Oliver claimed 44%)

Chilliwack ("farmer")* from 289,900 to \$252,306, down 13%. (Oliver claimed 11%)

* Subsequent amendments to the bill reduced the charge for Matsqui to \$125,000 (a reduction of 45%), and for Chilliwack to \$200,000 (down 31%).

This data from the Dyking Assessments Adjustments Act, 1905 (S.B.C. 1905, c. 20), and from Dixon, "Reclamation by Dyking and Drainage, Fraser River Valley", pp. 3 - 9.

46. Victoria Colonist, April 5, 1905.
47. Victoria Colonist, Thursday, March 23, 1905.
48. This data compiled from Dixon, "Reclamation by Dyking and Drainage, Fraser River Valley", pp. 4 - 6 and 8 - 9.
49. Morton, p. 47.
50. Victoria Colonist, March 23, 1905.
51. S.B.C. 1905, c. 20, and see footnote 45 above.
52. Edward Mohun estimated the dyking tax on BCDD property for 1905 to be \$2,827. (Mohun to Sweeney, 11 February, 1906, in Oppenheimer Papers, Vol. 12, fol. 3, p. 255.) Provincial land tax should be added to this, which amounted to \$332.50. (From New Westminster District Tax Assessment Rolls, P.A.B.C.)
53. Oppenheimer Papers, p. 255, and letter from Burdis to shareholders, 8 December, 1905, ibid., p. 243.
54. This advertisement was placed in newspapers in Vancouver, Calgary, Winnipeg and Toronto. Details of the advertisement are in the Oppenheimer Papers, Vol. 12, fol. 3, p. 249.

55. Burdis to Thompson (agent for R.J. Cameron), January 31, 1906, in Oppenheimer Papers, Vol. 12, fol. 3, p. 249.
56. Canada, Department of Agriculture, Prairie Farms Rehabilitation Act, "Preliminary Report on Feasibility of Reclaiming Pitt Meadows Dyking District No. 1, near Haney, B.C.", June 1951, p. 3. A mimeographed report in file "Pitt Meadows Number 1 and Pitt Polder, 1921 - 1952" in the office of the Inspector of Dykes.
57. Pitt Meadows Number 1 dyke failed in 1922, 1948, and 1950. See reports of Inspector of Dykes for these years, 1922, p. 6; 1948, p. 4; 1950, p. 3.
58. Oppenheimer Papers, Vol. 12, fol. 3, p. 254. This sale was effected on February 24, 1906.
59. Tax Assessment Rolls of the Municipality of Maple Ridge until 1896, and thereafter from the Tax Assessment Rolls of the Provincial Assessor, New Westminster District.
60. In 1905 the dyking tax on BCDD land was \$2,827. (see footnote 52 above) At this time the BCDD had about 4,000 acres dyked, i.e. 1,000 acres in each of the Pitt Meadows Dyking Districts and 2,000 in the MRDD. This works out to about 70¢ an acre. This was approximately 60% of previous tax levels, which had been cut by the Dyking Assessments Adjustments Act of 1905. Previous rates were thus likely between \$1.10 and \$1.20.

Chapter 4

1. Bruce Dixon, Inspector of Dykes, "Reclamation by Dyking and Drainage, Fraser River Valley", p. 6, in a file, "History of B.C. Dyking from Annual Reports, etc.", a file in the office of the Inspector of Dykes, New Westminster, B.C.
2. Ibid., p. 3.
3. Inspector of Dykes Annual Report, 1922, p. 6.
(In file noted above)
4. Inspector of Dykes Annual Report, 1946, p. 10.
5. Drainage districts were provided for in the 1920 amendment to the Dyking Assessments Adjustments Act. Information on the formation of the drainage district is from Inspector of Dykes Annual Report, 1946, p. 10.
6. F.M. Clement, Dyking, Drainage, and Irrigation Commission Report, Kings Printer, Victoria, 1947. Hereafter Clement's Report.
7. Dyking Assessments Adjustments Act 1905, Amendment 1933, S.B.C. 1933, c. 17.
8. Inspector of Dykes Annual Report, 1946, p. 2.
9. Clement's Report, p. 19.
10. Inspector of Dykes Annual Report 1946, pp. 7 - 10.
11. Ibid., p. 5.
12. Canada, Department of Agriculture, "Proceedings of the Reclamation Committee, Dyking District Number 1, Pitt Meadows", Kelowna, B.C., December 6, 1951. This report is in a file, "Pitt Meadows Number 1 and Pitt Polder, 1921 - 1952", in the office of the Inspector of Dykes.
13. Inspector of Dykes Annual Report 1946, p. 7.
14. "Soil Map of the Lower Fraser Valley"- an appendix to C.C. Kelly and R.H. Spilsbury, Soil Survey of the Lower Fraser Valley, B.C. Department of Agriculture in co-operation with Experimental Farms Service, Dominion Department of Agriculture, Ministry of Agriculture, Ottawa, 1939.
15. Canada, Department of Agriculture, Prairie Farmers Rehabilitation Act, "Preliminary Report on the Feasibility of Reclaiming Pitt Meadows Dyking District Number 1, near Haney, B.C.", June 1951, in file "Pitt Meadows Number 1 and Pitt Polder, 1921 - 1952".

16. Ibid. p. 3.
17. B.G. Vanderhill, "Pitt Polder, Dutch Enterprise on Canadian Soil", Canadian Geographical Journal, Vol. 65, No. 3, September 1962, p. 99.
18. Dominion Order-in-Council PC 1219, June 9, 1909, P.A.C.
19. Vanderhill, p. 95, and Books of Absolute Fees, Land Registry Office, New Westminster, B.C. for names of landowners.
20. Vanderhill, p. 95.
21. Letter from H.R. Fullerton, Director, Pitt Farms Development Limited, to Bruce Dixon, Provincial Inspector of Dykes, July 17, 1948, in file "North Pitt Meadows Area, 1940 - ", in the office of the Inspector of Dykes.
22. Interview with Leon Ladner, a former member of the gun club which was named the "Sturgeon Slough Gun Club."
23. Inspector of Dykes Annual Report 1947, p. 6.
24. Tax Records, Municipality of Pitt Meadows, for 1945 and 1948.
25. Clement's Report, pp. 119 and 121.
26. Inspector of Dykes Annual Report 1946, p. 5.
27. Clement's Report, p. 11.
28. Bruce Dixon, "Analysis of Debts owed to the Government of British Columbia by certain Fraser Valley Dyking Districts", 1946, pp. 6 and 9, in file "History of B.C. Dyking from Annual Reports, etc."
29. Clement's Report, p. 13.
30. S.B.C. 1947, c. 26
31. Inspector of Dykes Annual Report 1947, p. 3.
32. Ibid. p. 3.
33. Mission is the furthest point that tides reach up the river, and conversely is the lowest point at which river flow can be measured free from tidal influence. The height on the gauge is measured from above the mean lowest point of river flow. This information from the British Columbian (hereafter Columbian), Monday, June 7, 1948.
34. Details of the flood of 1948 are from the Columbian issues from 25 May through the end of June, 1948; and from Fraser River Board, Interim Report, Investigations into Measures of Flood Control in the Fraser River Basin, appendix C, "History of Floods in the Fraser River Basin", Victoria, 1956.

35. Columbian, 31 May 1948.
36. Ibid., 31 May 1948.
37. Ibid., 29 May 1948.
38. Ibid., 31 May 1948.
39. Ibid., 1 June 1948.
40. Ibid., 4 June 1948.
41. Inspector of Dykes Annual Reports 1948, p. 4 .
42. Columbian, 15 June 1948.
43. Prime Minister's statement to the House of Commons, Hansard, June 25, 1948.
44. The Flood Relief Act, S.B.C. 1948, Second Session, c. 1 .
45. Province of British Columbia, Progress of the Fraser Valley Rehabilitation Authority, Interim Report, Chilliwack, B.C., 1949.

Only twenty-nine buildings were rehabilitated by the authority in Pitt Meadows, compared to a total of 3,138 for the whole valley. Similarly, only seventy-five spools of barbed-wire fencing were sent to Pitt Meadows, compared to a total of 1,915 for the valley.

46. S.B.C. 1948, Second Session, c.2 .
47. "Final Report on the Activities of the Fraser Valley Dyking Board, from its inception on July 22, 1948, to March 1, 1950", Vancouver, 1950. (Hereafter, the FVDB Final Report), p. 17.
48. See, for example, Dixon's "Reclamation by Dyking and Drainage, Fraser River Valley", p. 6, and Inspector of Dykes Annual Report 1947, p. 6.
49. Pitt Farms Development Limited, owner of North Pitt Meadows, requested aid from the FVDB, see letter from their solicitor Leon Ladner to J.B. Carswell, chairman of the FVDB, 12 August, 1948. The request was rejected, see Carswell to Ladner, 17 August, 1948. These letters are in file "North Pitt Meadows Area, 1940 - " in the office of the Inspector of Dykes.
50. This cross-section is based on a description in the Inspector of Dykes Annual Report 1949.
51. FVDB Final Report, p. 6 .
52. Inspector of Dykes Annual Report 1949, pp. 2-3. The Maple Ridge Dyke is 14.39 miles long, Pitt Meadows Number 2 dyke 5.46 miles, i.e. there are approximately 20 miles of dyke in Pitt Meadows that were rebuilt by the FVDB.

53. FVDB Final Report, p. 7.
54. Inspector of Dykes Annual Report 1950, p. 4.
55. As noted on the map of Dyking Projects, FVDB Final Report.
56. Established by the Dykes Maintenance Act, S.B.C. 1950, c. 17.
57. B.C.S.P. 1894 - 95, p. 438. Letter from John J. McGee, Clerk of the Privy Council, to the Lieutenant-Governor of British Columbia.
58. FVDB Final Report, p. 2, reveals a federal contribution of \$8,625,000. To this should be added the \$5 million given by the dominion to B.C. for flood relief.
59. Columbian, 15 June, 1948.
60. Census data from Ninth Census of Canada, 1951, Vol. 10, General Review, Table 1, pp. 1 - 4, and summary tables, Queen's Printer, Ottawa, 1956.

The population of the Lower Fraser Valley in 1891 was 41,500 and in 1948 was 636,000. These figures include Vancouver.
61. J.L. MacDonald, Inspector of Dykes, "History of Dykes and Drainage in B.C.", a report in the file "History of B.C. Dyking from Annual Reports, etc."
62. Fraser River Flood Control Program Information Guide (FRFCPIG), (Published by a joint provincial-federal advisory board), Victoria, B.C., 1968, p. 22.
63. B.C.S.P. 1894 - 95, p. 431, Theodore Davie, Premier and Attorney-General, "Papers Relating to the Overflow of the Fraser River."
64. Memorandum of Agreement between the Province of British Columbia and the Dominion Government of March 19, 1949, in Dominion - Provincial Board, Fraser River Basin Second Annual Progress Report, 1950, Victoria, 1951. This board was established by B.C. Order-in-Council of December 11, 1948, and dominion Order-in-Council # 247/288, January 1949.
65. FRFCPIG, p. 21.
66. Ibid., p. 22.
67. Ibid., p. 22.
68. Ibid., p. 22.
69. This agreement is printed in FRFCPIG, pp. 15 - 20.
70. Letter from P.M. Brady, Director, Water Investigations Branch, Province of British Columbia, to the author, November 19, 1974.

71. Dyking Assessments Adjustments Act 1962, S.B.C. 1962, c. 76 sec. 2.
72. ibid., sections 5 and 6.
73. Provincial Orders-in-Council # 1693 and 1694, 15 May 1970.
74. Provincial Orders-in-Council # 1691 and 1692, 15 May 1970.
75. See appendix A. Figures tabulated there demonstrate that in 1924, for example, in the MRDD, 67% of dyking tax went for maintenance. In 1950 this proportion had risen to 74%. Figures for Pitt Meadows Number 2 and the Maple Ridge Drainage District were similar. In 1950, for example, 80% of Pitt Meadows Number 2 dyking taxes went for maintenance. In the drainage district this proportion was 60%.
76. See graph number 6-1.
77. Fraser Valley Milk Producers' Association, Our First 50, Vancouver, 1967, p. 10.

Chapter 5

1. This club, the Sturgeon Slough Gun Club, included in its membership Leon Ladner (lawyer), Harry Fullerton (realtor), Duncan Hamilton (newspaper publisher), Gordon Farrel and Slim Delbridge (investment dealers), and a number of other prominent Vancouver businessmen. This information from Leon Ladner.
2. This information from Dr. Jan Blom, managing director of Pitt Polder Limited.
3. Letter from J.B. Carswell, chairman of the FVDB, to Leon Ladner, lawyer for Pitt Farms Development Ltd., August 17, 1948. This letter is in a file, "North Pitt Meadows Area 1940 to ---, and Pitt Meadows Number 1, 1952 to ---" (hereafter referred to as NPMA), in the office of the Inspector of Dykes, New Westminster.
4. This information from a letter from H.R. Fullerton, Director, Pitt Farms Development Ltd., to the Provincial Inspector of Dykes, July 17, 1948, NPMA.

and from a letter from Leon Ladner, solicitor for Pitt Farms Development Ltd., to the chairman of the FVDB, August 12, 1948, NPMA.

5. C.C. Kelley and R.H. Spilsbury, Soil Survey of the Lower Fraser Valley, British Columbia Department of Agriculture in co-operation with the Experimental Farms Service, Dominion of Canada, Ministry of Agriculture, Ottawa 1939, p. 50, plus soil map in appendix.
6. Ibid., p. 51.
7. F.M. Clement, Dyking, Drainage, and Irrigation Commission Report, King's Printer, Victoria, B.C., 1947, p. 139.
8. Information supplied by Dr. Blom.
9. Information supplied by Dr. Blom. NB the figure reported by Burke G. Vanderhill, in "Pitt Polder: Dutch Enterprise on Canadian Soil", Canadian Geographical Journal, September 1962, p. 96, who gives the cost estimate as \$3 million. Blom, who supplied Vanderhill with his information, reports that he was in error on this figure.
10. Information supplied by Dr. Blom.
11. Information supplied by Dr. Blom.

12. From a comparison of aerial photographs of Pitt Polder in 1940 and 1963 in Edith Margaret Ginn, "Rural Dutch Immigrants in the Lower Fraser Valley", unpublished MA thesis, UBC, 1967, pp. 152 and 153.
13. Vanderhill, p. 97, and Blom, interview.
14. Ginn, p. 151 and p. 154.
15. Vancouver Sun, July 24, 1952, p. 15.
16. Vancouver Sun, September 24, 1954, p. 29, and Ginn p. 154.
17. Vancouver Sun, August 3, 1954, p. 36.
18. Vanderhill, p. 98, and Blom, interview.
19. Ginn, p. 13.
20. William Petersen, Planned Migration, the Social Determinants of the Dutch Canadian Movement, University of California Publications, Berkley and Los Angeles, 1955, p. 116.
21. B.P. Hofstede, Thwarted Exodus; Postwar Overseas Migration from the Netherlands, Martinus Nijhoff, The Hague, 1964, p. 196.
22. Vancouver Sun, September 24, 1954, p. 29, and interview with Dr. Blom.
23. Ginn, p. 154.
24. Vancouver Sun, April 16, 1952, p. 21.
25. Information supplied by Dr. Blom.
26. Vancouver Sun, May 12, 1958, p. 25, and information supplied by Leon Ladner.
27. Information supplied by Dr. Blom.
28. Information supplied by the B.C. Land Commission.
29. Fraser River Flood Control Program, Information Guide (hereafter FRFCPIG), Victoria, B.C., 1968, p. 21.
30. The Pitt Meadows Municipality made an agreement with the provincial Department of Lands and Forests to use this land for pasture in 1949, and leased it in that year to three local farmers. Grazing rental rates were 75¢ a head for young stock, \$1 a head for older stock, and \$2 for dairy cows, per month. Grazing did not start until the freshet had subsided.

30. (cont.) This information from "Proceedings of the Reclamation Committee, Dyking District Number 1, Pitt Meadows", Canada, Department of Agriculture, Kelowna, B.C., December 6, 1951. This report is in a file, "Pitt Meadows Number 1 and Pitt Polder, 1921 - 1952" (PMPP) in the office of the Inspector of Dykes, New Westminster.
31. Letter from Bruce Dixon, Inspector of Dykes, to C.E. Hopper, Assistant Deputy Minister, Department of Lands, March 5, 1952, in PMPP.
32. Inspector of Dykes Annual Report 1952, p. 5.
33. ibid., p. 5.
34. This information from the letters in the footnotes listed below, 35 and 36, from the file NPMA.
35. Letter from C.T.W. Hyslop, Superintendent of Lands, to Leon Ladner, Vice-president of Pitt Polder Ltd., March 26, 1959. In this letter Hyslop rejects Ladner's request for a Crown Grant for Alouette Polder because only \$78,027 worth of work had been done on reclamation, compared to an agreed expenditure of \$116,000. He notes that the dykes are not yet built to the required standard, and further that the company had agreed to do this work within three years, and now almost seven years have passed.

Letter from W.R. Meighen, Inspector of Dykes, to D. Borthwick, Assistant Superintendent of Lands, June 5, 1962. In this letter Meighen indicates that Pitt Polder Ltd. have come close to making their promised expenditures, but notes that the tops of their dykes are not wide enough for vehicular traffic, essential for easy access for emergency repairs. Meighen wrote: "I trust there is sufficient teeth in the present agreement with the company to require it to provide a reasonably adequate and more easily maintained dyke than that presently existing, regardless of whether the original cost estimates are exceeded."

Letter from Dr. J. Blom, managing director of Pitt Polder Ltd., to the Department of Lands, January 6, 1964. Blom claimed to have carried out works to the amount of \$147,006, considerably more than the \$116,000 originally agreed to.

These letters are in NPMA.

36. Letter from A. Paulsen, Land Inspector, to D. Borthwick, Superintendent of Lands, March 30, 1965, indicating that both he and the Inspector of Dykes (W.R. Meighen) were now satisfied that the agreement with Pitt Polder had been fulfilled, and that the Crown Grant for Alouette Polder could now be issued.

37. Inspector of Dykes Annual Report 1946, p. 7.
38. "Summary of Correspondence, Pitt Lake Dyke", in NPMA.
39. Ibid.
40. Interview with Dr. Blom.
41. The actual amount sold to the government for Green Belt was 2,943 acres, at a cost of \$1,477,682.18. This information from the British Columbia Land Commission. The government received its certificate of title on January 5, 1973, but negotiations for the sale of the land took place in the fall of 1972.

See also Certificate of Indefeasible Title B624E, and Indenture B624, at the Land Registry Office, New Westminster.

42. Green Belt Protection Fund Act, S.B.C. 1972, c. 24.
43. This information from the B.C. Land Commission, and see note 41 above.
44. This information from the B.C. Land Commission.
45. Letter from Dr. J. Blom to Deputy-minister of Water Resources, V. Raudsepp, April 11, 1973, and Memorandum from the Deputy-minister to the Environment and Land Use Committee (Water Resources), June 22, 1973. This letter and memorandum are in NPMA.
46. The memorandum indicated above in note 45 indicates that the government will request Pitt Polder Ltd. to maintain the dykes around the Green Belt. The company has proceeded to carry out such maintenance. On September 20, 1973, it billed the government \$13,000 for this work, and on July 12, 1974, submitted a bill for \$18,394.
47. Dr. Brink, B.C. Land Commissioner, interview.
48. Dr. Blom estimated that the average selling price of Fraser Valley farm land in 1972 was \$1,000 an acre. He estimated that to put the lands in the north of the polder to productive use would cost \$500 an acre. The balance, of \$500 an acre, was the amount the company agreed to accept.
49. According to Dr. Blom (interview).

Chapter 6

1. British Columbia, Full Report of the Royal Commission on Agriculture, Victoria, King's Printer, 1914, pp. 359 - 360.
2. The proportion of speculators is based on data from table 3-2 for 1905, and from the Pitt Meadows municipal tax records for 1915. These are graphed on graph 6-1.
3. Victoria Colonist, March 23, 1905.
4. See chapter 2 above, note 51, and the graph below, number 6-2.
5. Victoria Colonist, March 23, 1905.
6. Ibid.
7. Edgar McInnis, Canada, a Political and Social History, Toronto, Rinehart and Co., 1959, p. 263; and pp. 332 and 333.
8. Ibid. p. 378 for Laurier's support of the Grand Trunk.
9. Ibid. p. 423 for Borden's support of the Canadian Northern.
10. From Pitt Meadows municipal tax records of 1923. Absentee owners are classed as speculators, residents as settlers.

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