# RED FISH UP THE RIVER

# A REPORT ON THE FORMER COQUITLAM SALMON MIGRATIONS AND THE HYDRO-ELECTRIC DEVELOPMENTS AT COQUITLAM LAKE, BRITISH COLUMBIA, PRE-1914

By Will Koop, October 1, 2001.

Presented to the Kwikwetlem Nation through B.C. Hydro's Bridge Coastal Fish and Wildlife Rehabilitation Project Fund, Coquitlam/Buntzen Water Use Plan



Earliest known photo of salmon jumping in Coquitlam River, undated, early 1900's. Source: B.C. Hydro photographic archives.

# **TABLE OF CONTENTS**

Foreword and Acknowledgments	3
Executive Summary	4
1. Background 1(a). The Fish Ladder	5 8
2. The Earliest Discovered Accounts of the Coquitlam River Salmon and The Kwikwetlem Nation	11
3. 1906-1909: The Coquitlam Dam Fish Ladder and the Related Decision-Making Processes Concerning a Higher Dam and the Salmon Spawning Grounds at Coquitlam Lake	16
<ul> <li>3.a. Alterations to the Coquitlam Dam Fish Ladder</li> <li>3.b. Coquitlam Lake Salmon and New Westminster City's Water Supply</li> <li>3.c. The Second Coquitlam Dam and the Controversy over the Coquitlam Lake Salmon (Exhibits 21-54)</li> <li>3.d. Fisheries Inspector Sword's Report And The Coquitlam Dam Fish Ladder</li> </ul>	17 19 22
4. Conclusion	25
References	26
Appendix A: Chronology of Documents Discovered	28
Appendix B: Map Sources	49
Appendix C: Spawning Habitat Scenarios of the Former Coquitlam Lake and Tributaries	50
Appendix D: The Coquitlam River: Alterations, Water Licences and Flooding	59

## FOREWORD AND ACKNOWLEDGMENTS

The following report was researched and produced for the Kwikwetlem Nation through B.C. Hydro's Bridge Coastal Fish and Wildlife Restoration Program fund, in conjunction with B.C. Hydro's public review of the Coquitlam River system, the Coquitlam/Buntzen Water Use Plan. The Coquitlam/Buntzen Water Use Plan is the second of 31 proposed public reviews of hydro-electric complexes in British Columbia.

The Coquitlam River and its hydrographic boundaries constitute the ancient territory, or house, of the Kwikwetlem Nation who depended on and are named after the sockeye salmon that formerly flourished in the Coquitlam River and Lake. Under the Bridge Coastal Fish and Wildlife Restoration Program, the Kwikwetlem are constructing a salmon spawning channel in a former branch of the Coquitlam River alongside one of their reserves, to enhance salmon spawning habitat and to promote public awareness. This report is meant to compliment their project, and is based on the retrieval of historic information relative to the extinct salmon migrations of the Coquitlam River system, prior to 1914. The majority of the Coquitlam salmon spawned in the former Coquitlam Lake shores and adjoining tributaries that became inaccessible to salmon with the completion of the second Coquitlam Reservoir dam in 1913 by B.C. Hydro's predecessor, the B.C. Electric Railway Company.

Archival information was retrieved from the following repositories: the National Archives, Ottawa; the National Archives satellite archive in Burnaby; the British Columbia Provincial Archives, Victoria; the University of British Columbia Koerner and Special Collections Libraries, Vancouver; the New Westminster City Archives; B.C. Hydro's Information Center, Burnaby; the Pacific Salmon Commission Archives, Vancouver; the Vancouver Public Library, Special Collections; and newspaper microforms at the Port Coquitlam Terry Fox Library. I wish to thank the archivists and librarians for their kind assistance.

All relevant research references found in the above-mentioned repositories and microforms are cited in Appendix A, and are referred to through most of the report.

Will Koop, September 2001.

## RED FISH UP THE RIVER - EXECUTIVE SUMMARY

This report provides the following main findings, which are based on historical records related to the disruption of former salmon migrations in the Coquitlam River system, and the decision-making processes surrounding the hydroelectric complex engineered and constructed by the Vancouver Power Company between 1903 and 1913:

- 1. The Kwikwetlem Nation has a deep-rooted, inherited connection with the Coquitlam watershed system, and traditionally depended upon its salmon for their sustenance and trade. Archeological evidence of inhabitants on the shores of Coquitlam Lake has not been dated but certainly suggests a historic attachment to the Coquitlam watershed that goes back thousands of years. In 1899, Chief Johnny of the Coquitlam Nation wrote a letter of protest to the federal government opposing the B.C. Electric Railway Company's (the predecessor of B.C. Hydro) proposal for a dam at Coquitlam Lake. Chief Johnny stated that his people utterly depended upon the salmon for their livelihood and demanded compensation should the federal government approve the dam. The literal translation of Coquitlam by the Kwikwetlem Nation is "Red Fish Up The River", a name that derives from a unique run of sockeve that became extinct shortly after 1913 with the completion of the second dam at Coquitlam Lake. Geological evidence of glaciation patterns, along with archeological findings, suggest that ancestors of the Kwikwetlem Nation may have lived along the shores of Coquitlam Lake when the lower part of the present Coquitlam rivershed was still part of the ocean, and the mouth of the Fraser River had only reached the site of present-day Maple Ridge. Over the last 22 years, archeologists have discovered settlements and artifacts along the bays and shorelines of the previous natural lake. The Coquitlam Reservoir dam submerged these sites.
- 2. At least four species of salmonids Sockeye, Coho, Chum, and Steelhead frequented the Coquitlam River system in abundance and used habitat in Coquitlam Lake prior to the construction of the two Coquitlam River dams in 1905 and 1913. Information on the history and characteristics of these salmon have not been adequately described by historians, and were only infrequently mentioned by federal and provincial governments in the late 1800s and early 1900s. This information, much of which was discovered and presented in this report, suggests that the rearing and spawning habitat in the former Coquitlam Lake and its tributaries were likely critical for these salmon.
- 3. Archival records establish that between 1908 and 1909 the B.C. Electric Railway Company and its subsidiary, the Vancouver Power Company, were successful in persuading and influencing federal government senior administrators to circumvent the legislative protection given to salmon habitat when they obtained approval for a seventy foot dam on the Coquitlam River. The matters pertaining to these records and concerning the fate of the Coquitlam salmon were of a confidential nature, and kept from public knowledge for decades. Related federal correspondence from that same period for the Kettle and Alouette rivers in British Columbia demonstrate that the Department of Marine and Fisheries was vigilant in its mandate to protect salmon habitat, despite the fact that political decisions were subsequently made to also approve of a dam on the Alouette River. Records also show that by diverting water from Coquitlam to Buntzen Lake, the Vancouver Power Company contravened existing federal legislation in the early 1900s. This legislation stated that a river could not be diverted from its natural course. Due to the political influence by the B.C. Electric Railway Company, this legislation was subsequently altered.

# 1. BACKGROUND

The B.C. Electric Railway Company, with its head office in London, England, formed a subsidiary, the Vancouver Power Company, on January 25, 1898. <sup>1</sup> The Vancouver Power Company was incorporated to develop a waterpower facility to provide electric power to its parent company's operations and customers throughout Greater Vancouver, supplied at that time by a steam generation plant. <sup>2</sup> The proposed conversion from steam to hydro-electric power for the greater Vancouver area was subsequently investigated through an internal commission by a San Francisco engineering company in May 1898, <sup>3</sup> and the Vancouver Power Company applied for a water power licence later the same year.

The Vancouver Power Company hired two engineering services to investigate the proposed development. Hermon & Burwell Engineering Services provided field reconnaissance services for "surveys, plans, and measurements," and A. McL. Hawks from Tacoma, Washington, provided a report 4 on a proposal for the Coquitlam watershed in 1900. After a lengthy search of nearby mountains and rivers was conducted, limited by other water use licences issued by the provincial government for the water supply catchments of greater Vancouver and greater New Westminster City residents, engineers contemplated a challenging and ingenious scheme to divert the natural waters in Coquitlam Lake westward by constructing a two and a half mile long tunnel 5 to Lake Beautiful. One dam was to be built near the mouth of Coquitlam Lake to raise the Lake level for the proposed tunnel, and a second dam was proposed at Lake Beautiful, below which a series of penstocks were to be placed to funnel the diverted Coquitlam Lake water to the proposed power generation station on the southeastern shoreline of Indian Arm. From its point of view, the Vancouver Power Company's investment would be the cheapest and have the lowest maintenance costs in comparison with the other power developments on the entire Pacific Coast. 6

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<sup>&</sup>lt;sup>1</sup> The two corporation titles may be used interchangeably throughout this report. In 1961, the British Columbia Social Credit Party government legislated the B.C. Electric Railway Company into a Crown Corporation, called the B.C. Power and Hydro Authority (later, B.C. Hydro). Records of the B.C. Electric Railway Company were donated in November 1964 to the University of British Columbia.

<sup>&</sup>lt;sup>2</sup> The B.C. Electric Railway Co. "designed the plant in such a way, however, that it could later be adapted to use in conjunction with hydro-electric power" (Patricia Roy, page 155). In 1898, the B.C. Electric Railway Co. had already developed its first and small hydro-electric facility of 720 kilowatts on the Goldstream River for the City of Victoria on southern Vancouver Island.

<sup>&</sup>lt;sup>3</sup> Report on the Conditions of Operations of the Electric System of the B.C. Electric Railway Co. "The preliminary investigations show that there is abundant power within 12 or 13 miles of Vancouver. The knowledge gained by the preliminary surveys is sufficient to warrant the Company making thorough investigation of the question.... The existence of a water power so adjacent to a growing city like Vancouver will prove a constant menace to at least the "lighting business" of the Co."

<sup>&</sup>lt;sup>4</sup> This report was not found.

<sup>&</sup>lt;sup>5</sup> Lake Beautiful was renamed Trout Lake, and finally Buntzen Lake in 1905, after the president of the Vancouver Power Company, Johannes Buntzen.

<sup>&</sup>lt;sup>6</sup> Correspondence, R.H. Sperling, General Manager, Vancouver Power Company, and Johannes C.M. Buntzen, president, Vancouver Power Company, February 12, 1904.

The Vancouver Power Company, however, was faced with a challenging obstacle in its proposal to dam and divert the Coquitlam. Coquitlam Lake was the domestic water supply for the City of New Westminster and its immediate municipal neighbours, organized through the incorporation of the Coquitlam Water Works Company that was established by provincial legislation on April 6, 1886. <sup>7</sup> On September 2, 1889, the City of New Westminster purchased the Coquitlam Water Works Company for the sum of \$20,000, and by August 1892 water was being delivered to New Westminster City. Rights and obligations for water diversion, supply, and distribution were vested in the Coquitlam Water Works Company, <sup>8</sup> a fact that was a point of strategic concern for the Vancouver Power Company:

"... that their rights were of no use to us as they could only use the water for water <u>works</u> not for water <u>power</u>, and besides, by the passing of the Water Clauses Act of 1897 all the waters of the province, not already recorded, were set free to be used under the terms of the new act. Our scheme at that time fell through, and when it was taken up again last year the Coquitlam Water Works Company opposed our application, and when the record was finally granted us it was made subject to "the rights, <u>if any</u>, of the Coquitlam Water Works Company." <sup>9</sup>

The Vancouver Power Company eventually negotiated the takeover of the Coquitlam Water Works Company on October 18, 1902, and was then assigned obligations to provide New Westminster City with long-term potable water. By 1903, the Vancouver Power Company began constructing its long tunnel and small dam. <sup>10</sup> This first rock-filled timber crib dam, which raised

<sup>7</sup> "Coquitlam Lake was proposed in 1885 as a source of water supply for the whole peninsula between the Fraser River and Burrard Inlet. At that time the site of the present city of Vancouver was still covered with primeval forest." Quote from G.R.G. Conway report of 1914, page 5.

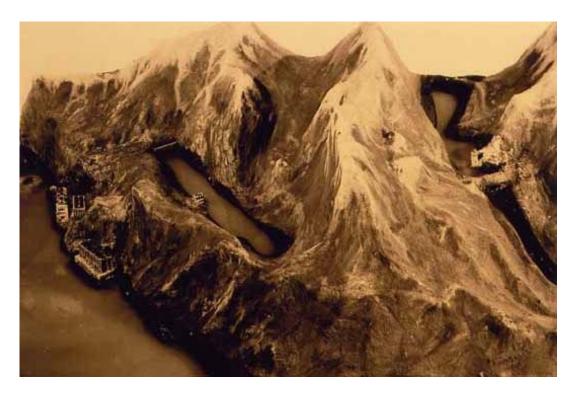
<sup>8</sup> The Coquitlam Water Works Company Act: "All the rights, title, powers and interest which the said company has or may hereafter obtain to construct, manage and maintain water works are as necessary and sufficient to be exercised by the said corporation (city of New Westminster), in the construction and maintenance and further enlargement of capacity of works to supply the said city of New Westminster within the limits thereof, as the same are now defined, or as they may at any time hereafter be extended by any future addition or additions which may be made to the said city."

On September 9, 1909, Counsel representing the Municipalities of Coquitlam, Richmond, and residents of Port Moody filed a legal complaint which stated that the provincial government failed to acknowledge applications for water rights to Coquitlam Lake by New Westminster City, Coquitlam, Richmond, and Delta prior to the application by the Vancouver Power Company of 5,000 miners inches of water in December, 1901. According to the June 3, 1898 minutes of New Westminster's Water Committee, regarding a draft agreement with the Vancouver Power Company, it was moved and carried that New Westminster required a minimum of 3,000 miners inches for its water supply. F.R. Glover, who had been the City Clerk for New Westminster from 1898-1900, became the General Manager for the Vancouver Power Company in 1901.

<sup>&</sup>lt;sup>9</sup> June 7, 1902, Letter from Johannes Buntzen, president, Vancouver Power Co., to Z.A. Lash, Ottawa solicitor. UBC Special Collections, Box 179, file 8.

<sup>&</sup>lt;sup>10</sup> The first tunnel construction period, May 1903 - April 1905. The first dam construction period, May 1904 - August 1905. Enlargement of the Coquitlam-Buntzen tunnel began in November, 1910. Phase two construction for the enlarged dam began on March 21, 1912 (page 31, *Final Report on the Construction of the Hydraulic fill dam at Lake Coquitlam*, by R.S. Stronach, October, 1913).

water levels by a maximum ten feet, was located about 500 meters below the mouth of Coquitlam Lake. 11



The Vancouver Power Company's clay model of the diversion project. Coquitlam Reservoir and water supply intake tower to the right.



Diversion Tunnel labourers begin work for 2.4 mile excavation of granite between Coquitlam and Buntzen Lakes.

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<sup>&</sup>lt;sup>11</sup> See Map 1, Appendix C, for location.

After assuming control over the Coquitlam Water Works Company, the political relationship between the B.C. Electric Railway Company and New Westminster City became tense and strained over the following ten years. This antagonism was based on a series of jurisdictional matters during the first and second phase dams, mainly due to the fact that New Westminster City wanted authority over water and land title rights to protect the quality and quantity of its water supply, and for related concessions from the B.C. Electric Railway Company. With the controversies related to the second proposed dam, New Westminster City launched a federal court case that prolonged this proposed development from 1909 to 1912. <sup>12</sup>

# 1(a). The fish ladder

Prior to the commencement for construction of the first small dam, which would raise the level of Coquitlam Lake by up to ten feet in elevation, the Vancouver Power Company consulted with the federal Inspector of Fisheries, C.B. Sword, to have a fish ladder incorporated into the eastern wing of their rock-filled dam (Exhibit 7). In a letter to the federal Commissioner of Fisheries, provincial Inspector Sword described the importance of the April/May sockeye run, the October Coho run, and the Dog salmon (the month of the Chum run was not described), and asked for further instructions to protect the Coquitlam salmon from being extinguished by the dam. He provided the Commissioner with a blue print of the fish ladder, a plan drafted by the Vancouver Power Company. Inspector Sword went on to suggest alterations to the draft plan, to better accommodate fish ascent. However, there was no mention made to the Commissioner about the impacts the dam was having on the flooding of the Coquitlam Lake area spawning grounds. <sup>13</sup> A discussion and map locations of

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<sup>12 &</sup>quot;As you are aware, there has been considerable controversy for the past four or five years between the Dominion Government, the City of New Westminster, and the Vancouver Power Company, arising from the use of Coquitlam lake waters for municipal purposes by the City, and for power purposes by the Company....During the negotiations for authority to construct the dam, and while it was under construction various matters of difference arose between the [federal] Government, the City and the Company, many of which were settled as they arose, but some of which resulted in litigation between the City and the [federal] Government. To finally settle all these remaining differences, and especially questions of litigation, a conference was held last September at Westminster with the representatives of the City, the Power Company and the Department present, to see if some mode of settlement could not be arrived at, satisfactory to all. These negotiations finally resulted in an agreement between the Dominion Government, the City and the Company, which has been executed, and which purports to settle all matters in litigation." (Superintendent of the Water Power Branch, to J.B. Harkin, Commission of Dominion Parks, Department of the Interior, December 31, 1913.)

<sup>&</sup>quot;When the Vancouver Power Company commenced the construction of the Coquitlam Dam, B.C. to increase its water supply for power purpose it became necessary to overcome the objections of the City of New Westminster which draws its domestic water supply from Coquitlam Lake. This Department was instrumental in composing the differences between the Company and the City and amongst other things it created the Coquitlam Reserve designed to reserve the entire catchment basin of the Lake in order that no contamination of its waters could occur." (J.T. Johnston, Hydraulic Engineer, Dominion Water Power Branch, to W. W. Cory, Deputy Minister of the Interior, August 23, 1922.)

<sup>&</sup>lt;sup>13</sup> Such correspondence may exist, but was not discovered through this research grant. Descriptions of these flooded lands, which were not cleared by the Vancouver Power Co. for phase one of the dam, are rare: "A number of the party [of 25 people, municipal representatives, etc.] went up the lake by boat, and inspected the submerged lands and woods. These were viewed unfavorably and as the water is at present several feet below the crest of the dam, conditions were at their worst." (F.R. Glover's diary, Vancouver Power Company Manager, October 10, 1908)

these former spawning grounds, along with information on historic Kwikwetlem settlements, is provided in Appendix C.



Photo of first dam, somewhere between late 1905 and 1908. Caption beneath photo reads: "Three and a half feet of water passing over the crest of Coquitlam dam." Fish ladder on right side of dam in photo. Source: B.C. Hydro archives.

The federal fisheries department began to experiment with fish ladders for salmon in the 1890s, on Vancouver Island and on the mainland, most notably for the dam at the mouth of Quesnel Lake, home to one of the more significant salmon runs in British Columbia. Construction techniques for fish ladders on dams were slowly perfected through trial and error by the Fisheries Department, and became mandatory. This is also demonstrated in Exhibit 6, where a dam was placed on the Kettle River in British Columbia in 1903, with the Fishery Inspector obligated to provide a detailed report on the matter. Legislation for the protection of salmon spawning grounds was already given priority status by the Department of Marine and Fisheries in the early 1900's.

In the final bi-weekly construction report of the first dam by the Vancouver Power Company in September 1905 (Exhibit 9), the fish ladder was described as being durable to withstand "rough treatment" during floods. After the dam was discovered to be leaking a considerable amount of water the following year, <sup>14</sup> it was not until late 1908, after public concern and investigations, that the Company proposed to replace the dam with a much higher dam - by 70 feet. It was during this period in which the B.C. Electric Railway Company encountered myriad public relations difficulties with local residents, municipalities, and the federal Departments of Justice and Marine and Fisheries.

According to correspondence records, the Vancouver Power Company devised strategies to overcome the threat of the possible cancellation of its plans to expand the Coquitlam dam because of the federal mandate for the protection of the fisheries. For instance, lobbyists kept watch over the itineraries and dispositions of federal politicians and bureaucrats, and through well-established

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<sup>&</sup>lt;sup>14</sup> Koop, Presentation on the History of the Coquitlam Watershed and River.

connections they were able to persuade the government to withdraw objections by the Departments of Justice and Marine and Fisheries by the end of October 1909, <sup>15</sup> the details of which are discussed in chapter 3. As a result, the Coquitlam Lake fisheries were no longer an issue in both the continuing public debate and the New Westminster court case on the proposed Coquitlam dam. With the initiation of construction on the final Coquitlam dam no more salmon ascended the Coquitlam River to the Coquitlam Lake spawning grounds after 1912.

The B.C. Electric Railway Company officials were also quite distressed over another impending matter. The Vancouver Power Company had apparently contravened federal legislation that stated a river could not be diverted from its original course, the diversion apparently "condoned" over the years by federal legislators and politicians (Exhibits 30, 32). According to archival records, lobbyists for the B.C. Electric Railway Company induced federal politicians and administrators to amend the Ministry of Interior legislation to make its diversion facility legal, to prevent the possibility of a public scandal, and to protect their considerable investments. <sup>16</sup> The revised legislation and the approval of the Coquitlam dam set a precedent, which eventually allowed the diversion of rivers for other hydro development projects in British Columbia, such as the Alouette-Stave and Bridge-Seton projects by the B.C. Electric Railway Company, and the Nechako-Kemano project by Alcan, obstructions which have terminated salmon habitat above and below their dams.



Photo of Coquitlam River below the first dam circa 1910. Clearing of old growth forest for second dam has begun. Source: B.C. Hydro archives.

 $^{15} \ Exhibits \ 25, \ 26, \ 28, \ 29, \ 31, \ 32, \ 39, \ 40, \ 43, \ 45, \ 48, \ 50, \ 51.$ 

<sup>&</sup>lt;sup>16</sup> According to Patricia Roy's thesis, the B.C. Electric Railway Co. was "an effective lobbyist", and was able to influence Canadian governments in various ways (p. 49, 66-67, 117, 156-158, 365 ff.,). Refer to Koop's manuscript in the reference section for additional details.

# 2. THE EARLIEST DISCOVERED ACCOUNTS OF THE COQUITLAM RIVER SALMON AND THE KWIKWETLEM NATION

Other than a few generalized comments in one or two older books on the history of the Coquitlam area, including early fishing books and a recent presentation on the history of the Coquitlam River and upper watershed, <sup>17</sup> descriptive information on the historic salmon populations of the Coquitlam River system is virtually non-existent. This also happens to be true for written records of the Kwikwetlem Nation by anthropologists and historians. <sup>18</sup> Both the salmon and the Kwikwetlem people seemed to have shared an intertwining fate. However, there are some archival records, discovered and compiled chronologically in Appendix A.

The anglicized name, Coquitlam, is the name from the Kwikwetlem Nation (pronounced "Kwayhquitlum"). According to Kwikwetlem Nation history, the derivation of their name is from the former local sockeye run, translated as "Red Fish Up The River". When the municipality of Coquitlam was incorporated in 1891, it named its new colonial settlement after the Kwikwetlem Nation, associating it with the local sockeye run, "small red salmon":

"The word is of Indian origin, and pronounced by them as if it were spelled Kwere-quit-lam, and means small red salmon, a fish which teemed up the Coquitlam every year in April, and as an article of diet, would not be surpassed for its flavour and nutritive powers. From this small fish, the locality and the river took the name...." (Exhibit 58, Coquitlam Star newspaper, October 6, 1911)

This salmon family, from which there is no documented scientific knowledge, was apparently an indigenous population, distinct from generic sockeye runs, and first nicknamed in Appendix A by the federal Inspector of Fisheries, C.B. Sword, as the "bastard" sockeye:

"Coquitlam Lake is the main spawning ground for an early run of salmon, locally known as "bastard" sockeyes, indeed with the exception of a few which are reported to spawn in some of the tributaries of the Pitt River, a few miles above, these fish seem to depend wholly on this lake for breeding." (Exhibit 7, April 2, 1904)

From records documented throughout Appendix A, Coho, Dog (Chum), and Steelhead also ascended the Coquitlam to spawn in the tributaries of Coquitlam Lake. <sup>19</sup> Along with the statements about the sockeye run, two other runs are referred to in Appendix A, one being a summer run (most likely Chum), and another an October Coho run.

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<sup>&</sup>lt;sup>17</sup> Koop, Presentation on the History of the Coquitlam Watershed and River, April 1994.

<sup>&</sup>lt;sup>18</sup> For an account of this, B.C. Hydro report, I.R. Wilson Consultants, May 2001, pages 7-8. For a summary of archeological investigations, refer to pages 13-16.

<sup>&</sup>lt;sup>19</sup> Exhibits 7, 8, 21, 38, 42, 44, 58, 60, 62.

The earliest correspondence discovered in federal government records about the Coquitlam salmon and the Kwikwetlem Nation begins in 1899 (Exhibits 1-5). The series of correspondence in 1899 establishes that the remaining Kwikwetlem families (80 members) were dependent upon the salmon runs in the Coquitlam River system, where Chief Johnnie refers to it as his "cupboard".

"I heard that the Vancouver people were going to buy Coquitlam Creek. It will be hard for the Indians here to live if they stop our fishing. Since we were born at Coquitlam we have been living on salmon. If our fishing is stopped we can't live because we live by fishing. For a good many years fish have been breeding here and if they spoil it they take our food from us. I heard that they want to dam it and turn it into pipes that will stop the salmon from hatching here. We are all loyal subjects of the Queen and would like to be given a chance to live honestly and comfortably. If the Creek is taken away from us it will be very hard for us. It is like a man taken [sic, taking] the food out of my cupboard - the creek is our store house. This is the only reason why we don't want to lose the creek. If the Vancouver people buy the creek we want compensation for 80 people, \$5,000 per year. [New] Westminster is my friends and I don't care about their pipe because it [is] in the lake and do not affect the creek. But if the creek is dam[med] it will spoil it. [Signed] Johnnie, Chief. Not only me but all the chief in [.....] little creek don't want this thing to happen." (Exhibit 1, March 19, 1899) <sup>20</sup>

Of interest is the fact that Chief Johnnie had heard, either directly or indirectly, of the Vancouver Power Company's proposal to build a dam at Coquitlam Lake in early 1899, or late 1898. Members of the Kwikwetlem, who were in the vicinity of Coquitlam Lake, most likely met with one of the engineers or surveyors hired by the Vancouver Power Company who related to them their business and the plans for a dam in the area. The Kwikwetlem obviously became so troubled about the future impacts of the salmon on their existence and economy <sup>21</sup> that they immediately composed a letter that was then hand-delivered to the federal government's Inspector of Fisheries for British Columbia, John McNab (C.B. Sword's predecessor), headquartered in New Westminster City.

The correspondence is significant, in that it provides perhaps the only written account by the Kwikwetlem protesting the proposed dam and demanding related compensation for their lost future economy. From the existing records it seems as though the Kwikwetlem's protest and demands went unanswered by the federal government, and as a result the Kwikwetlem may no longer have

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<sup>&</sup>lt;sup>20</sup> A provincial commission in 1879 created two small reserves for the Kwikwetlem Nation located on the floodplain near the mouth of the Coquitlam River, Indian Reserves (I.R.) 1 and 2. The 1915 Royal Commission on Indian Affairs, which visited First Nation Reserves throughout B.C., collected information from the Kwikwetlem nation in early 1915: "... there is one sort of fish that we call the bastard sockeye and the fishery officers has given us permission to catch them and sell them on account of the B.C. Electric making a dam away up on the Coquitlam river and therefore the Bastard sockeye has a difficult time to reach their spawning grounds as the fish just die without reaching there and that is why the fishery officers have given us permission to sell them."

<sup>&</sup>lt;sup>21</sup> A federal Superintendent of Fisheries later stated that the salmon had "no commercial value" (Exhibit 44, Sept.20, 1909).

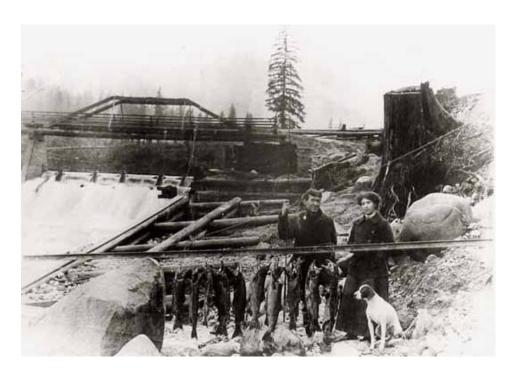


Photo of salmon hanging from a steel rail, caught presumably by the fisherman holding the fishing rod. Photo taken sometime between 1909 and 1911. Source: B.C. Hydro archives.

frequented the Coquitlam Lake area after the first construction phase of the dam. <sup>22</sup> However, in response to the concerns summarized by Chief Johnnie, the federal Commissioner of Fisheries did emphasize that his government had the "exclusive right to legislate for the protection of fisheries". That the federal Department of Marine and Fisheries valued the Coquitlam Lake salmon spawning grounds was apparent in the concern raised by C.B. Sword, the Inspector of Fisheries, in April 1904 (Exhibit 7). In this respect, Sword identified three species of salmon that migrated to Coquitlam Lake to spawn, and the importance of providing a fish ladder for their ascent up the proposed small height of the dam.

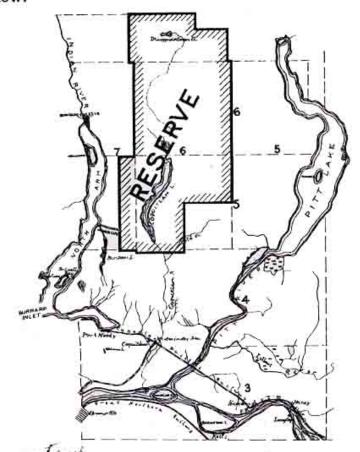
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<sup>&</sup>lt;sup>22</sup> Because the first dam flooded the Lakeshore by up to three meters, it would have submerged the Kwikwetlem fishing camps. Secondly, as a result of initiatives undertaken since 1900, New Westminster City began enforcing strict rules to prevent human trespass in the Coquitlam watershed boundaries above the domestic water supply intake to protect its water quality. For instance, hundreds of official notices were posted and distributed throughout the area in around 1910 with the following order, signed by Frank Oliver, Minister of the Interior of Canada: "Any unauthorized person in any manner occupying or taking possession of any portion of these lands, or cutting down or injuring any trees, saplings, shrubs, or any underwood, or otherwise trespassing thereon, will be prosecuted with the utmost vigour of the law." Refer to document 2-1, which is a copy of the draft notice. And: "From time to time prospectors, hunters, picnickers, etc., etc., have requested permission to enter the reserve and have invariably been refused" (J.B. Challies, Water Power Branch, Memorandum to the Deputy Minister, May 12, 1912). And: "All men will ... be supplied with a metal tag, any man found within the Reserve without this tag will be immediately expelled, thus obviating the danger of men trespassing in order to look for work" (J.T. Johnston, Superintendent, Water Power Branch, June 26, 1917).



# **PUBLIC NOTICE**

PUBLIC NOTICE is hereby given that the Government of Canada has reserved for special purposes the lands surrounding and in the neighborhood of Coquitlam Lake as shown within the heavy lines on map below.



Any person in any manner occupying or taking possession of any portion of these lands, or cutting down or injuring any trees saplings shrubs, or any underwood or otherwise trespassing thereon will be prosecuted with the utmost vigour of the law.

By Order, FRANK OLIVER

Minister of the Interior of Canada.

**Document 2-1**. Draft copy of the official 'No Trespassing' poster for the Coquitlam Watershed Reserve.

To further qualify the Department of Marine and Fisheries' mandate to protect salmon habitat, Exhibits 18 and 19 of Appendix A provide explicit and prime examples of this, here regarding another dam proposal for water diversion to the Stave River from the Lillooet Lake (renamed Alouette Lake) and River system:

"It has been brought to the attention of this Department by Mr. J.B. Kennedy, M.P., that the Burrard Power Company has applied to the Provincial Government of British Columbia for the grant of twenty-seven thousand inches of water from the Little Lillooet [Alouette] River, which empties into the Pitt River.

From such information as this Department has at the present time this is a serious matter as if this application is granted it will seriously affect the run of the various species of fish that pass up this river to the lakes above for the purposes of spawning.

If the above quantity of water is diverted from this stream during the months of July, August and September, at which time the stream is naturally a shallow one, it will really destroy what is reported to be one of the finest streams in British Columbia for Sockeye, Cohoe and Steelhead salmon.

During the past few months this Department has expended considerable money for the purpose of securing fish eggs for the Fraser River Hatchery from these waters and it is in the interests of the Fish Breeding Service in British Columbia that the best spawning streams should be carefully guarded." (Exhibit 18, February 1, 1908)

"King vs Burrard Power Co. In this matter, Mr. Wade, acting for the Attorney General of Canada tendered evidence tending to show that the erection of a dam forming a part of the works of the Burrard Power Company at the outlet of Lillooet [Alouette] Lake would prevent salmon, particularly Steel Head Salmon from going up the Lillooet Lake to their spawning ground.

Mr. Burdis was in the Court room and prior to the case going on, stated very broadly that the effect of the erection of any dam would have a most damaging effect on the salmon industry." (Exhibit 19, April 1, 1908)

# 3. 1906-1909: THE COQUITLAM DAM FISH LADDER AND THE RELATED DECISION MAKING PROCESSES CONCERNING A HIGHER DAM AND THE SALMON SPAWNING GROUNDS AT COQUITLAM LAKE

# 3(a). Alterations to the Coquitlam dam fish ladder

Exhibit 10 in Appendix A is an intriguing letter from the secretary of the Fraser River Canner's Association in 1906 to Fisheries Inspector Sword at New Westminster. The letter suggests that the installation and maintenance of the fish ladder on the first Coquitlam dam was merely a formality to reflect the federal Department of Marine and Fisheries' mandate to protect the salmon spawning grounds in the Coquitlam Lake area, and that in reality it was the intention of both the Vancouver Power Company (in charge of the Coquitlam Water Works Company) and the City of New Westminster to eradicate the salmon out of fear of the salmon harming the quality of the domestic water supply:

"I am informed by a gentleman that in its present condition the fish ladder entirely failed to fulfill the purpose for which it was built.

During the late spawning season, thousands of salmon reached the dam, and my informant (who was engaged there) states that he did not see a single salmon get up the fishway, though he saw hundreds try to do so.

He tells me further that the fish ladder referred to, was only put in to carry out the regulations in regard to obstructions on salmon streams, but that it was not intended to be effective, as the Westminster Civic Authorities objected to the presence of dead salmon in Coquitlam Lake, from which the city water supply is drawn. The dead fish being barred by the dam from floating down stream, as they would otherwise do.

As this is a matter of considerable importance, may I ask whether it has previously been brought to your attention and whether the statements made to me are correct." (Exhibit 10, March 19, 1906) <sup>23</sup>

Return correspondence from Fisheries Inspector Sword to the Fraser River Canner's Association was not found, and it is not known what Sword's views were regarding the politics around the fish ladder. There is, however, another consideration, in that the Department of Fisheries may have merely neglected monitoring the effectiveness of the fish ladder since its completion in late 1905. Aside from this possibility, the substance of the Canners Association's argument is actually part of a much larger tangled political web regarding the Department of Marine and Fisheries' mandate to protect the salmon fisheries, which became a point of particular concern with the Vancouver Power Company and its proposed expansion of the Coquitlam dam, explained below.

16

<sup>&</sup>lt;sup>23</sup> The concerns in the correspondence from the Fraser River Canner's Association may have been related to two possibilities: firstly, that the Association was naturally concerned about the commercial value of salmon habitat; and secondly with the ongoing evidence and review of salmon fisheries and spawning grounds on the Fraser River through the B.C. Salmon Commission which began in 1902.

Of interest in the Fraser River Canner's Association's correspondence with Inspector Sword is the reference to the "late spawning season" and the Coquitlam dam fish ladder. Since the dam became operative in late August 1905, the most probable run referred to in the letter was the Coho run, mentioned as "thousands of salmon", and not the sockeye run, which was not yet running.

The Canners Association's letter prompted Inspector Sword to look into the matter. It was one month later on April 25, 1906, that Fisheries Inspector Sword contacted the Vancouver Power Company General Manager to inquire into the problem of the fish ladder, the very month of the "bastard" sockeye run to Coquitlam Lake. Oddly, there was no mention of the sockeye run in Inspector Sword's or the Vancouver Power Company's correspondence. Sword mentioned to the General Manager that the Vancouver Power Company failed to adhere to the fish ladder plan, as provided in the Department of Marine and Fisheries' instructions. Sword visited the dam in early May, and provided specific comments to make the fish ladder more effective. Following Sword's revisions, it wasn't until the beginning of August, 1906 that alterations to the fish ladder were actually made, during a period of low water, and inspected afterwards by Inspector Sword.

"The Fish Ladder has been altered to meet with your views and if you care to visit the dam, I should be pleased to arrange transportation to the dam and return for you, to enable you to inspect the work." (Exhibit 16, August 3, 1906)

It is assumed that, because of these alterations approved by the federal Fisheries Inspector, salmon were able to ascend the fish ladder to Coquitlam Lake again. This fact, however, was later strangely overlooked and disputed by the Department of Marine and Fisheries.

# 3(b). Coquitlam Lake salmon and New Westminster City's water supply.

The intake for New Westminster's water supply was originally located on the lower end of Coquitlam Lake, above the location of the first dam. In August 1905, the Vancouver Power Company installed a new intake location, incorporated into the western half of the dam, in anticipation of the flooding of Coquitlam Lake to begin in the following month. <sup>24</sup>

For many years New Westminster City hired "Indians" to clear the water intake screens during salmon runs, to prevent any possible contamination of their water quality. The Indians referred to were most likely members of the Kwikwetlem Nation:

"During the spring and summer months numerous salmon were in the habit of coming up the Coquitlam River and spawning in the lake, after spawning the fish died in the thousands, Indians being employed by the City of New Westminster to remove the putrifying bodies from near the intake, this work being so objectionable that white men would not undertake it." (Exhibit 55, November 5, 1910)

"... before the dam was placed there, and when Salmon had free access to the Lake, it was found necessary to send men there at times to clear the Lake of dead Salmon following the

17

<sup>&</sup>lt;sup>24</sup> "An 18" pipe line has been extended down stream from the Dam for about 100 ft. This will be used as a waste water pipe and will create a circulation of the water at the intake of the City of New Westminster's water pipe, preventing the water from getting stagnant during the period it will take the lake level to rise to the crest of the Dam." (Report of August 20, 1905. UBC Special Collections, Box 167, file 3)

spawning period, in order to prevent diminution of the water supply to New Westminster which was obtained from Coquitlam Lake." (Exhibit 44, October 18, 1909)

Aside from the concerns about the effects of rotting salmon carcasses in the water supply, the records show that the salmon runs into Lake Coquitlam were considered significant, a point which is of particular interest to the Kwikwetlem Nation and salmon historians:

"Under the old conditions countless numbers of salmon ascended to the Lake during the spawning season.... Since the dam was built there is noticed only an occasional dead fish, where there used to be thousands of salmon in all stages of putrifaction floating all over the lake." (Exhibit 21, October 1908)

"With respect to the question of the purity of the water and the statements made by some of the gentlemen present that the water was not as good and pure now as before the erection of the dam, he pointed out that before the dam was erected it was sometimes necessary in the Fall of the year to send men with pitch-forks, to clear away the dead and rotting salmon which had accumulated at the intake. Mr. Stott, the Superintendent of the Waterworks, was present, heard what was said, and could vouch for the accuracy of this statement. In this respect at least, the water must have been improved at one season of the year anyway. Anyone who made the trip around Coquitlam Lake in those days could see not hundreds, but thousands upon thousands of dead salmon scattered along the beach and floating in the water." (Exhibit 23, February 8, 1909)

"The undersigned is advised that salmon have in the past ascended this river in large numbers to spawn in the Lake but that they afterwards die and consequently prove detrimental to the waters as a source of domestic supply." (Exhibit 35, August 31, 1909)

"That the City did not even attempt to prevent the salmon "run" during the spawning season, when thousands of full grown salmon died in the lake and had to be raked from in front of the City's intake pipe." (Exhibit 56, May 22, 1911)

There are statements by representatives of the City of New Westminster in the Vancouver Power Company's files, however, which indicate that prior to the construction of the first dam the City was not overly concerned about rotting salmon floating in Coquitlam Lake near their water supply intake pipe, <sup>25</sup> especially since the population of greater New Westminster had been getting their domestic water supply from the Lake since 1892. There is indication in the records in Appendix A to support the suggestion that this controversy may very well have been the product of performed overemphasis in order to promote the political approval of the new dam, at the expense and demise of the salmon runs, explained in the following section.

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<sup>&</sup>lt;sup>25</sup> Some references in the files donated to the University of British Columbia references were only observed but not noted at the time, and the dates of the correspondence were not catalogued. There was no mention of the concerns about rotting salmon at the intake in either of the existing minutes for the Water and Health Committee records for New Westminster City.

# 3(c). The second Coquitlam dam and the political controversy over the Coquitlam Lake salmon (Exhibits 21-54)

In 1906 the Coquitlam dam began leaking, leaking so much over the following months that the Vancouver Power Company's General Manager estimated there was as much leaking through it as was being diverted through the tunnel to the Buntzen reservoir. <sup>26</sup> This leakage resulted in great public concern by the City of Coquitlam about the safety of the ten foot dam, with the threat of liabilities related to human casualties and the flooding and destruction of riparian properties, farms, and businesses. <sup>27</sup> By 1908, the B.C. Electric Railway Company's London headquarters was calling for the replacement of the dam, translating the issue into an opportunity for the expansion of its reservoir, tunnel, and power plant. The Company's engineers originally proposed an additional height of thirty feet but reconsidered on an additional sixty feet instead. <sup>28</sup>

Apart from concerns about future safety, there were immediate concerns beginning in late 1908 about the new dam proposal from residents, municipalities, and the Department of Marine and Fisheries on the effect the proposed seventy foot structure would also have on the salmon:

"2. That a grant under the said Act cannot be made so as to effect the vested rights of riparian owners or so as to interfere with navigation and fisheries, and the building of such dam and the diversion of such water would interfere with all such rights. (Exhibit 22, Petition to the Lieutenant-Governor from the Municipality of Coquitlam, Dec. 9, 1908)

"The matter of the raising of the Coquitlam dam came before the "Executive" of the Federal Government on Feb.10th. A Mr. Wade from the government was opposing the application. Wade presented two objections: interference with navigation and fisheries "by destroying hatching ground for salmon". "(Exhibit 24, February 10, 1909)

"Referring to your telegram of 26th. Hon. M.R. Gifford seen Oliver who will not oppose new dam replacing old one but raised following objection(s) to height (of) being increased. (One) danger to settlers in event of dam bursting (Two) injury(ies) to fisheries below dam (Three) injury(ies) to lumber interests (Four) Dominion Act provides water taken from river must return to river and consequently the permission (to) for which we ask is illegal although present diversion is condoned. Stop." (Exhibit 30, Vancouver Power Company telegram, July 29, 1909)

<sup>27</sup> "I desire also to mention that the recent municipal elections at both New Westminster and Coquitlam the question of this dam was an issue and that in both places the candidates who opposed the dam and the Vancouver Power Co's proposals were elected by large majorities. I mention this matter only in reply to Mr. Glover's statement as to the attitude of the people in these municipalities." (H. Guthrie, House of Commons, Ottawa, to Sir Wilfred Laurier, Ottawa, January 17, 1910.)

 $<sup>^{26}</sup>$  Koop, Presentation on the History of the Coquitlam Watershed and River.

<sup>&</sup>lt;sup>28</sup> The storage capacity of the first dam was 25,100 acre feet, or 1,096,000,000 cubic feet. Raising the dam to the 70-foot level would provide a storage capacity of 180,500 acre feet, or 7,873,000,000 cubic feet. Source: G.R.G. Conway report, 1914, page 9.

Federal government and public attention about the impact to the Coquitlam salmon became a point of considerable concern by the Vancouver Power Company beginning in early 1909. These concerns are reflected in Exhibits 21 to 54 of Appendix A, summarized in the following quotes:

"Considerable opposition has developed to the scheme, and at the last hearing before the Executive the Dominion Government through Mr. F.C. Wade objected to the scheme...." "Be that as it may, the fact remains that the Dominion Government has taken a hand in the game now and must be gotten rid of if at all possible, and the Company invokes your assistance for this purpose, and expects you to leave no stone unturned to accomplish this." (Exhibit 25, February 24, 1909)

"You will recognize by this time the utter impossibility of getting instructions to Mr. Wade to withdraw his opposition. The matter has got to be cleared up on the lines indicated, and until it is so this Government will not withdraw." (Exhibit 29, March 20, 1909)

"The attitude of the Fishery Board is now the only thing that is causing us any anxiety...." (Exhibit 40, October 6, 1909)

Over the course of a year, the Vancouver Power Company and its federal lobbyist Thompson, a former Member of Parliament, cultivated two arguments with senior government administrators and politicians to counteract the legislative interest over the Coquitlam salmon, arguments which both the Departments of the Interior and Marine and Fisheries eventually adopted. One was that salmon, particularly after spawning in Coquitlam Lake, were harmful to New Westminster's source of drinking water. The other was that the proposed dam was more important to the economy, described as the "general" or "public interest".

"As I have already written you with reference to this subject, pointing out the injury which would result to the water supply of the City of New Westminster if salmon were to enter the Lake in any number, it is not necessary for me to enlarge on this subject again. I would suggest, however, that you see the Hon. Mr. Templeman, and secure his assistance with the Minister if any difficulty arises; in fact, it would probably be a good move to get him to accompany you to the Minister of Marine and Fisheries and urge the latter not to allow the matter of Fisheries to stand in the way of our development, which is of so much importance to the country at large." (Exhibit 40, October 6, 1909)

"The Inspector of Fisheries intimated some time ago that there would be no objection from the Department ... and any large number of fish entering the Lake would be detrimental to the City of Westminster, as being likely to injuriously affect their water supply." (Exhibit 33, August 7, 1909)

"6. The question of possible injury to fishing interests. The undersigned is advised that salmon have in the past ascended this river in large numbers to spawn in the Lake but that they afterwards die and consequently prove detrimental to the waters as a source of domestic supply. The undersigned is of the opinion that no passage of fish is necessary in the new works, and that such provision may be dispensed with, subject to the approval of the proper officers of the Marine and Fisheries Department." (Exhibit 35, August 31 1909)



Forest clearing and pile burning operations for 70 foot flooding margin at the south end of Coquitlam Lake, around 1911. Source: B.C. Hydro archives.

"Department informed Vancouver Power Company enlarging its dam in Coquitlam River. Strongly urged that general interest would be best served by preventing fish passing it, as in past it has been necessary [to] remove dead fish to prevent contamination [of] water supply. If this correct no fishway should be built. Please wire your views." (Exhibit 36, September 8, 1909)

"He [the Deputy Minister of Marine and Fisheries] said further that you might be able to make it appear that the fulfilment of the Company's project would be much more beneficial than would the loss to the Fisheries be detrimental, in which case consent would probably be given." (Exhibit 39, September 29, 1909)

"The company asks that it be not called upon to provide a means of enabling Salmon to go above the dam, as the Lake in question is resorted to by only the coarser kinds of salmon, and the public interest will be much better served by the Power and Water supply that will follow the building of the dam." (Exhibit 44, October 18, 1909)

"For this reason it will be necessary for you to use your very best influence with the Minister, pointing out to him that it cannot be shown that the Coquitlam River is now, or ever was, of any special value to the fisheries in British Columbia, and as a matter of fact, such salmon as did enter the Lake at one time, have since been excluded by the erection of the Dam which was placed there in 1904. Further, to permit the salmon (which are largely of an inferior species) to enter the Lake, would mean serious injury to the New Westminster water supply." (Exhibit 51, November 1, 1909)

To a certain extent, New Westminster City had been concerned about the possible health effects of rotting salmon in Coquitlam Lake near its domestic water intake for a few weeks of the year, that is, prior to the politicization of this issue with the Vancouver Power Company. It is apparent that the Vancouver Power Company subsequently used this issue as a wedge with the City and the federal government to demonstrate that spawning salmon in the Coquitlam reservoir, as they defined it, was not in the public's best interests. <sup>29</sup>

# 3(d). Fisheries Inspector Sword's report and the Coquitlam dam fish ladder

There was yet another and complicated overlapping argument played out in the latter half of 1909 which concerned itself with the politics around the Coquitlam dam fish ladder and a report on the issue by Fisheries Inspector Sword. Simply stated, from the viewpoint of those advocating the proposed dam, if it could be shown that the fish ladder had been ineffective from late 1905 to 1909, then the salmon were no longer a relevant concern in 1909 when the issue of salmon was brought forward and debated internally by the federal government. This was apparent in the communication and correspondence by the Fisheries Department in Ottawa, and in separate Vancouver Power Company correspondence. <sup>30</sup> For instance, the letter from the federal Superintendent of Fisheries, R.N. Venning, to the British Columbia Fisheries Inspector Sword:

"While I do not find further correspondence on the subject, my understanding is that the fishway in question was built; but the Department is now informed that it has not been successful, and that practically ever since the dam was built salmon have been unable to ascend beyond it." (Exhibit 38, September 13, 1909)

Oddly, Superintendent Venning contradicts himself in his letter by stating "when the dam was first built and Salmon got above it, it was necessary to remove the dead fish to prevent pollution of the water supply."

In his letter of September 13th, Venning ordered Inspector Sword to provide him with a report about the salmon and the feasibility of the salmon ascending over the second proposed dam. Venning's instructions were accompanied by strong suggestions to Sword that the public's interest did not warrant the continuation of salmon spawning in the reservoir, and that the existing fish ladder had been ineffective:

"I should be obliged for a full report from you as to exactly the conditions existing there, and what the Company is doing, and whether or not in your opinion it is advisable to call for a means of enabling salmon to get into the Lake, as if I am correctly advised to the height of the proposed dam, I do not see how such could be done otherwise than by taking steps to prevent a dam of such height being placed there at all, and it may be that the general interest would be better served by the power that would be available at the dam, than by limiting such power to that which would be provided by a dam of moderate height over which a successful fishway could be built.

<sup>&</sup>lt;sup>29</sup> This issue, on the interrelationships between salmon carcasses and domestic water supply, should be further investigated by professionals in the science of water quality.

<sup>&</sup>lt;sup>30</sup> Exhibits 25, 33, 38, 42, 44, 47, 49.

In this connection I may say that it is further represented to the Department that no fish whatever ever got up the fishway that was in the previous structure for several years past." (Exhibit 38)

Inspector Sword delayed reporting back to Superintendent Venning until nearly a month later, due to his personal concern about monitoring the Coho run due at the fish ladder in early October. In his report letter, <sup>31</sup> Sword stated that he observed salmon ascending the fish ladder, and then catered to Superintendent Venning's strong suggestions to approve the new dam:

"I delayed replying as I wished to observe how far the fish way was effective during the cohoe run now due.

The conditions when the fish way was built were different from what had been represented to me. The slope was greater and instead of the fish way coming out in a deep pool it came out on a bare apron. Some alterations were made and some fish as I can say from personal observation did afterwards go up.

I am not prepared to say that the shutting off of such fish as use it from their spawning ground in the lake is of importance enough to justify the refusal of permission to build the proposed dam.

These fish consist mainly of the early run of sockeye, referred to in your letter (which our regulations do not allow to be legally caught) and cohoes which are apparently not very particular where they spawn." (Exhibit 42, October 7, 1909)

Having learned that the Department of Marine and Fisheries were awaiting the report, the Vancouver Power Company became very troubled about its possible contents and recommendations, and exerted considerable influences to discover its contents and to entreat favour for its project from the federal administrative decision makers: <sup>32</sup>

"... it will be necessary for you to use your very best influence with the Minister, pointing out to him that it cannot be shown that the Coquitlam River is now, or ever was, of any special value to the fisheries in British Columbia, and as a matter of fact, such salmon as did enter the Lake at one time, have since been excluded by the erection of the Dam which was placed there in 1904." (Exhibit 51, November 1, 1909)

In Superintendent Venning's Memorandum of October 18, 1909 to the Minister of Marine and Fisheries, he went so far as to misrepresent Sword's report, that is to limit the importance of the Coquitlam salmon by overlooking Sword's comments on salmon ascending the fish ladder:

23

<sup>&</sup>lt;sup>31</sup> It is not known if this letter from Sword constituted his official report to the Deputy Minister, because it was not thorough. However, in the fifth paragraph of Exhibit 44, Venning's Memorandum to the Minister of Marine and Fisheries of October 18, 1909, the phrases suggest that Sword's one page letter was the final report. There were no other reports from Sword found in archival files. This does not mean that another report exists, or that the report was inadvertently misplaced.

<sup>&</sup>lt;sup>32</sup> Exhibits 39, 40, 41, 43, 45, 46, 48, 49, 50, 51, 52, 53, 54.

"The fishway in question was built; but from the information before the Department it seems that it has not been efficient, and that no Salmon have got up to Coquitlam Lake since the dam was placed there."

"It will not be forgotten that this Lake has now been shut off from these spawning fish for four years past. It is not a very important spawning area, and as above explained the Sockeyes that resort to it are of no commercial value, and there does not appear to be any indication that the run of Cohoe Salmon is decreasing.

The information before the Department would seem to indicate that the general interest would be served by allowing the proposed dam to be completed, and if the Minister approves the Company will be informed that the circumstances do not seem to be such as call for the provision of a fishway in the proposed dam." (Exhibit 44)

In turn, Superintendent Venning wrote back to Inspector Sword (Exhibit 47) on October 23rd, five days after his Memorandum, instructing him that the Minister of Marine and Fisheries had considered Inspector Sword's report and that the salmon did not need to be protected:

"It will, therefore, not be necessary for you to cause the owners to provide for a free passage of fish in this Dam."

In other words, it appears as though Superintendent Venning withheld Inspector Sword's report letter from the Minister and then assured Inspector Sword that the Minister had properly considered his assessment.

The Acting Deputy Minister of Marine and Fisheries informed the Vancouver Power Company's lobbyist on October 28th of the Minister's decision (Exhibit 49), and it was not until November 1, 1909 (Exhibit 52) that the Vancouver Power Company was satisfied that the federal government's concerns about the salmon were officially abandoned.

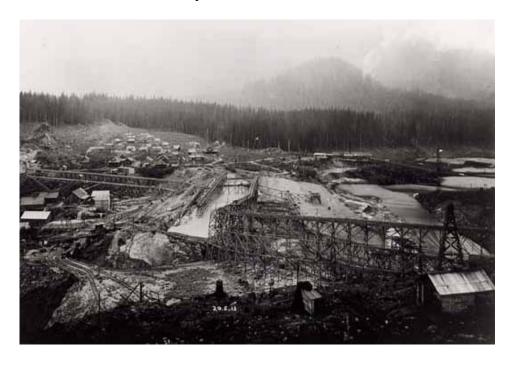


Photo taken on May 20, 1913 of the final phase of the Coquitlam dam, showing trestle bridge for sluicing and temporary construction camp with lumber mill. Source: B.C. Hydro photo archives.

# 4. CONCLUSION

Like other First Nation peoples and their territories, the Kwikwetlem Nation has ancient ties to the Coquitlam rivershed. The evidence for this not only relates to their name, which is derived from the extinct Coquitlam River sockeye run, but also on recent archeological findings along the shores and tributaries of the former Coquitlam Lake. The few scant documents from government records also indicate that the Kwikwetlem people were traditionally dependent upon the Coquitlam salmon for their sustenance, economy, and culture. As a result of the hydro-electric developments, colonization, and protective policies created by local, provincial and federal governments for the Coquitlam Watershed Reserve, the Kwikwetlem Nation were forced to relocate from their traditional fishing and hunting grounds, and find other sources of food and livelihood.

From the archival sources presented in this report, it seems as though there were no formal governmental records kept on sockeye, coho, chum, and steelhead salmon escapement for the Coquitlam River system before 1914, when the salmon spawning habitat at Coquitlam Lake was cut off by the seventy foot high dam. Though the only records that were discovered on these salmon populations are anecdotal, mostly expressed by witnesses as in the "thousands" of salmon, they are nevertheless significant in helping to understand the great loss of these former salmon species and their habitat.

Finally, this report has provided a number of sensitive, political and controversial correspondence records between the B.C. Electric Railway Company and federal ministries on the project history of the hydro-electric developments related primarily to salmon habitat at Coquitlam Lake. The fact that such decision-making processes are sometimes made should not surprise us at all, but it nevertheless provides the reader with a rare glimpse of matters that occurred between a financial investor and our governments. Because of the nature of these documents, this report endeavors to treat the narrative as objectively as possible, in order to bring about a balanced understanding and context of what actually occurred. From these records, it would appear as though the Coquitlam Lake salmon habitat was sacrificed for hydro-electric power in what was described by the investor and federal administrators as the public or "common good".

The ultimate challenge for British Columbians, government administrators, and B.C. Hydro is to assess this history, and to come to some helpful resolution on what the future will hold for the Coquiltam River salmon and the Kwikwetlem Nation.

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<sup>33</sup> Note: This report, written by the Vancouver Power Company's Chief Engineer, has a few factual errors and omission of events.

<sup>&</sup>lt;sup>34</sup> Freeman, from Providence, Rhode Island, was hired by the Department of the Interior to be its consulting engineer for the Coquitlam/Buntzen development. He made 5 inspections of the project: April 21, 1910; October 14, 1910; July 20, 1911; September 6, 1912; April 11, 1913. The Vancouver Power Company and R.S. Stronach provided Freeman with weekly reports.

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<sup>&</sup>lt;sup>35</sup> Stronach was the resident engineer for the Department of the Interior, from April 1910 to October 1913. Over the course of his stay, he wrote weekly reports, major reports, drafted blue prints, and took 419 photographs of the project.

# APPENDIX A: CHRONOLOGY OF DOCUMENTS DISCOVERED

# EXHIBIT (1) - March 19, 1899.

Letter from Chief Johnny, Kwikwetlem Nation, to John McNab, Inspector of Fisheries, New Westminster City.

"I heard that the Vancouver people were going to buy Coquitlam Creek. It will be hard for the Indians here to live if they stop our fishing. Since we were born at Coquitlam we have been living on salmon. If our fishing is stopped we can't live because we live by fishing. For a good many years fish have been breeding here and if they spoil it they take our food from us. I heard that they want to dam it and turn it into pipes that will stop the salmon from hatching here. We are all loyal subjects of the Queen and would like to be given a chance to live honestly and comfortably. If the Creek is taken away from us it will be very hard for us. It is like a man taken [sic, taking] the food out of my cupboard - the creek is our store house. This is the only reason why we don't want to lose the creek. If the Vancouver people buy the creek we want compensation for 80 people, \$5,000 per year. [New] Westminster is my friends and I don't care about their pipe because it [is] in the lake and do not affect the creek. But if the creek is dam[med] it will spoil it. [Signed] Johnnie, Chief. Not only me but all the chief in [.....] little creek don't want this thing to happen." (DFO - AW1-5474 - Reel 52, file # 2780, part 1)

# **EXHIBIT (2) - March 21, 1899.**

Letter from John McNab, Inspector of Fisheries, New Westminster, to the Deputy Minister of Marine and Fisheries, Ottawa.

"The enclosed letter was handed to me by Chief Johnny [March 19], of the Coquitlam Band of Indians, with a request on behalf of his people, that I would forward it to the Hon., the Minister of Marine and Fisheries, which I now have the honour to do. The letter is intended as a protest against the granting of exclusive rights to any part of the Coquitlam River, near the mouth of which the Indian house [??] is situated, to any persons whomsoever. I have the honour to be, Sir, Your Obedient Servant, John McNab, Inspector of Fisheries." (DFO - AW1-5474 - Reel 52, file # 2780, part 1)

# EXHIBIT (3) - March 22, 1899.

Aulay Morrison, M.P, New Westminster riding, to F. Gourdeau, Deputy Minister of Marine and Fisheries, Ottawa.

"Dear Sir. Is the Coquitlam River Fisheries water in the jurisdiction of the Department? The Forest & Stream Club of B.C. is seeking a lease of the fisheries there and I am anxious to know what if any control from [the] Dept. may have in that case." (DFO - AW1-5474 - Reel 52, file # 2780, part 1)

# **EXHIBIT (4) - March 23, 1899.**

F. Gourdeau, Deputy Minister of Marine and Fisheries, Ottawa, to Aulay Morrison, M.P, House of Commons

"I have your letter of 22nd instant." "Under the recent decision of the Privy Council in the Fisheries Case, although no formal settlement between the respective governments has yet been reached, I imagine that notwithstanding whatever doubt may exist as to relative

jurisdiction in tidal waters, the right of the Province to lease such rivers as I have described and I understand the Coquitlam is one of these - is assured. But notwithstanding the Federal Government may not have the right to lease the proprietary interests in such streams, it has the exclusive right to legislate for the protection of the fisheries and make all regulations under which fishing may be carried on, whether by angling or otherwise." (DFO - AW1-5474 - Reel 52, file # 2780, part 1)

# EXHIBIT (5) - April 8, 1899.

Dominion Commissioner of Fisheries, Ottawa, to John McNab, Inspector of Fisheries, New Westminster. (Note: it appears that the Commissioner of Fisheries may not have read Chief Johnny's letter carefully, and seems to have carelessly mistaken it for another proposal by the Forest and Stream Club of B.C.)

"I am in receipt of your letter of the 21st ultimo, enclosing a protest from Chief Johnny, of the Coquitlam Band of Indians, against the granting of exclusive rights of fishery in any part of the Coquitlam River, near the mouth of which the Indian Reserve is situated. In reply I beg to inform you that whatever doubt may exist as to relative jurisdiction in tidal waters under the recent decision of the Privy Council in the Fisheries Case, and on that point no formal settlement between the Dominion and the Provincial Governments has yet been reached, there is no question as to the right of the Province to lease the fisheries in non-navigable rivers, that is above the ebb and flow of the tide, such as I understand the Coquitlam to be. I may add that while the Dominion Government may not have the right to lease the proprietary interests in such stream, it has the exclusive right to legislate for the protection of the fisheries, and make all regulations under which fishing may be carried on, whether by angling or otherwise. I am Sir, Your obedient servant." (DFO - AW1-5474 - Reel 52, file # 2780, part 1)

## **EXHIBIT** (6) - June 3, 1903.

Edward E. Prince, Dominion Commissioner of Fisheries, to C.B. Sword, Inspector of Fisheries, New Westminster City.

"The Greenwood Board of Trade complain that a dam built across the Kettle River at Cascade City is an obstruction to the ascent of fish, while at Boundary Falls another obstruction exists. It is suggested therefore that the Department authorise steps with a view to the erection of Fish-passes or fish-ladders in Kettle River and at Boundary Creek. Will you report fully on the matter. Who are the owners of the Cascade City dam and what fish are obstructed? Your suggestions will aid this Department." (DFO - RG 23-23, General Correspondence, 1903)

# EXHIBIT (7) - April 2, 1904.

C.B. Sword, British Columbia Inspector of Fisheries, New Westminster, to E.E. Prince, Dominion Commissioner of Fisheries, Ottawa.

"The Vancouver Power Co. Ltd., to secure a supply of water sufficient to develop the power they require, are boring a tunnel between Lakes Beautiful (the North Arm of Burrard Inlet) and Coquitlam, their generating works being situated at the outlet of the former lake. Coquitlam Lake is the main spawning ground for an early run of salmon, locally known as "bastard" sockeyes, indeed with the exception of a few which are reported to spawn in some

of the tributaries of the Pitt River, a few miles above, these fish seem to depend wholly on this lake for breeding.

Cohoes and Dog salmon also use the Coquitlam River for a spawning ground, though these, at least the latter, do not probably go up so far as the lake.

The "bastard" sockeye run in May, at which time, as far as I can learn, the water is high enough to secure an ample overflow over the crest of the dam which the Vancouver Power C. propose putting in. I enclose you a blueprint of this dam with the plans for a fish ladder suggested by them. The lower face of the dam is at a slope of 30 [degrees] or 1 to 1.7. This seemed to me somewhat steep and the plan as suggested shows the fishway as coming out to the end of the log apron giving a slope of 18 [degrees] or about 1 in 3.

This log apron is to be bedded in the creek bottom and the water, the engineers of the company assert, will always be 3 or 4 ft. deep over it; the height of the dam to be overcome being proportionately reduced.

The proposed width of the fishway is 12 ft., alternate riffles 2 ft. high being set at every 6 feet. A sheer boom will protect the fishway from damage from drift timber, the amount of which is sometimes considerable and which would prevent the utilisation of the whole front of the dam as a fishway.

Assuming the water to be 3 feet deep over the log apron, the entrance to the fishway would be 15 or 16 feet from the face of the dam to which the fish would naturally make their way in ascending. Would it be advisable to sacrifice the better grade so as to have the entrance to the fishway flush with the face of the dam?

The riffles should be I think three feet instead of two in height and at the end of each there should be a wall at right angles three feet long, extending half-way to the side of each riffle. I should also have the inlet tot he fishway on the upper side a little lower than the rest of the crest of the dam.

If you should think it better to have the outlet of the fishway at the foot of the apron as shown on the plan so as to secure the lower grade, it might be an improvement in enabling the fish to find it, to make the entrance at the side (so that the current would strike across the apron) instead of at the end. The company are willing to do anything that may be required but are anxious to have definite instructions at once so that they can give out their contracts."

## EXHIBIT (8) - May 23, 1904.

Instructions to B.C. Fisheries Inspector C.B. Sword to have a fishway built, due to an early run of Sockeye, and runs of Cohoe and Dog Salmon. (Correspondence not found. Refer to correspondence of September 13, 1909)

# EXHIBIT (9) - September 3, 1905.

Vancouver Power Company bi-weekly record accounts during the construction of the Coquitlam dam.

"The lower apron to the Dam has been completed across the full width of the river, and where possible the timbers have been bolted to the large bolders underneath. The cribwork of the Easterly abutment has been finished and the cribs filled with rock filling. An extra layer of 2" by 12" plank sheeting has been spiked on to the river side of both abutments for the entire lengths. This sheeting will take the wear of the heavy drift wood floating over the Dam at flood water. A Fishway has been put on the Easterly end of the Dam and loaded with rock filling. It is also well drift bolted to the Dam and made to withstand the rough treatment which it will be subjected to at freshets.

The rock filling on the up stream ends of both abutments has been completed and the sand and gravel filling in front of the whole Dam and abutments has been finished." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 167, file 3)

# EXHIBIT (10) - March 19, 1906.

W.D. Burdis, Secretary, Fraser River Canners' Association., to C.B. Sword, Fisheries Inspector, New Westminster.

"As you are aware, in order to carry out the project for conveying the waters from Coquitlam Lake to Lake Buntzen by means of the tunnel, a dam was built at the head of the Coquitlam River, which unless provision was made for the access of the salmon to the lake, they would cut off from that portion of their natural spawning ground.

This fact was taken note of when the dam was constructed and a fish ladder installed. I am informed by a gentleman that in its present condition the fish ladder entirely failed to fulfill the purpose for which it was built.

During the late spawning season, thousands of salmon reached the dam, and my informant (who was engaged there) states that he did not see a single salmon get up the fishway, though he saw hundreds try to do so.

He tells me further that the fish ladder referred to, was only put in to carry out the regulations in regard to obstructions on salmon streams, but that it was not intended to be effective, as the Westminster Civic Authorities objected to the presence of dead salmon in Coquitlam Lake, from which the city water supply is drawn. The dead fish being barred by the dam from floating down stream, as they would otherwise do.

As this is a matter of considerable importance, may I ask whether it has previously been brought to your attention and whether the statements made to me are correct."

# EXHIBIT (11) - April 25, 1906.

C.B. Sword, B.C. Inspector of Fisheries, New Westminster, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"I saw Mr. Burwell yesterday but he tells me he had not heard from you and could not go up to Coquitlam dam without your instructions. The foot of the fish ladder coming out on a second apron, instead of as anticipated by him into a pool three or four feet deep, creates quite a different condition of affairs from what was counted on when the Department accepted the plan adopted.

Will you kindly see Mr. Burwell and arrange with him to go up with me and see what can be done to make the ladder more effective." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 167, file 4)

# EXHIBIT (12) - April 26, 1906.

R.H. Sperling, Acting General Manager, Vancouver Power Co., to H.M. Hermon & Burwell, Engineers, Dominion & Provincial Surveyors.

"Mr. C.B. Sword has been in to see me on two occasions lately, and he has also written me today requesting that you should accompany him to Lake Coquitlam to inspect the Fish Ladder. Please take this gentleman to the Lake and do what you can to satisfy him." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 167, file 4)

# EXHIBIT (13) - April 26, 1906.

R.H. Sperling, Acting General Manager, Vancouver Power Co., to C.B. Sword, Inspector of Fisheries, New Westminster.

"I beg to acknowledge receipt of your letter dated April 25th. I have written to Mr. Burwell instructing him to make arrangements to take you to Lake Coquitlam to inspect the Fish Ladder. I assure you that we are anxious to carry out the wishes of the Fisheries Department, but before taking any steps we shall await the result of your visit to the Lake."

(U.B.C. Special Collections - British Columbia Electric Railway Company - Box 167, file 4)

# EXHIBIT (14) - May 8, 1906.

H.M. Burwell, of Hermon & Burwell, Engineers, Dominion & Provincial Surveyors, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"In accordance with your request, I have visited the Coquitlam Dam in company with Fisheries Inspector Sword and he has pointed out to me the improvement he desires in the fish ladder.

The height of the pockets he suggests should be increased by one foot, and two extra pockets or steps should be put in, out on the apron below the present ladder. This work can be easily done at a small cost as we have a number of 12" x 12" timbers left over to be used for repairs, &c.

Should you decide to send up a Carpenter to do the work, you can send him around to our office and I will explain to him all the details in connection with this work.

I would suggest that when this work is done, the Carpenter should cut blocks and drift bolt them to the lower toe of the dam in accordance with the following sketch.

This would take the wear of the drift wood passing over the structure and would increase the life of the dam." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 167, file 4)

# **EXHIBIT (15) - August 1, 1906.**

C.B. Sword, Inspector of Fisheries, New Westminster, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"I see the Coquitlam is low now and suggest it would be a good time to get the work done at the fish ladder." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 167, file 8)

# **EXHIBIT (16) - August 3, 1906.**

R.H. Sperling, Acting General Manager, Vancouver Power Co., to C.B. Sword, Inspector of Fisheries, New Westminster.

"The Fish Ladder has been altered to meet with your views and if you care to visit the dam, I should be pleased to arrange transportation to the dam and return for you, to enable you to inspect the work." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

# EXHIBIT (17) - August 5, 1906.

H.M. Burwell, of Hermon & Burwell, Engineers, Dominion & Provincial Surveyors, to R.H. Sperling, Acting General Manager, Vancouver Power Co., re fish ladder.

# **EXHIBIT (18) - February 1, 1908.**

Gourdeau, Deputy Minister of Marine and Fisheries, to Secretary Department of the Interior.

"It has been brought to the attention of this Department by Mr. J.B. Kennedy, M.P., that the Burrard Power Company has applied to the Provincial Government of British Columbia for the grant of twenty-seven thousand inches of water from the Little Lillooet [Alouette] River, which empties into the Pitt River.

From such information as this Department has at the present time this is a serious matter as if this application is granted it will seriously affect the run of the various species of fish that pass up this river to the lakes above for the purposes of spawning.

If the above quantity of water is diverted from this stream during the months of July, August and September, at which time the stream is naturally a shallow one, it will really destroy what is reported to be one of the finest streams in British Columbia for Sockeye, Cohoe and Steelhead salmon.

During the past few months this Department has expended considerable money for the purpose of securing fish eggs for the Fraser River Hatchery from these waters and it is in the interests of the Fish Breeding Service in British Columbia that the best spawning streams should be carefully guarded." (National Archives, RG 89, vol.20, file 7300/2-7)

# **EXHIBIT (19) - April 1, 1908.**

A.N. McNeill, of MacNeill & Bird, Barrister and Solicitors, Vancouver, to W.J. Bowser, Attorney General of B.C.

"King vs Burrard Power Co. In this matter, Mr. Wade, acting for the Attorney General of Canada tendered evidence tending to show that the erection of a dam forming a part of the works of the Burrard Power Company at the outlet of Lillooet [Alouette] Lake would prevent salmon, particularly Steel Head Salmon from going up the Lillooet Lake to their spawning ground.

Mr. Burdis was in the Court room and prior to the case going on, stated very broadly that the effect of the erection of any dam would have a most damaging effect on the salmon industry." (Victoria Archives, GR 435, Box 64, file 595)

# EXHIBIT (20) - August 11, 1908.

The British Columbia Provincial Game & Forest Warden, to H.M. Burwell, of Hermon & Burwell Engineering Services, Vancouver.

"Dear Sir. Some little time ago Mr. Chaldecott told me that you were coming up to see me with reference to the use of nets in the Coquitlam; I have been waiting until I saw you to take this matter up with the Dominion Fisheries Officer. I should be very much obliged if you would let me have what information you can on this subject." (Victoria Archives, GR 446, Box 17, file 3)

# **EXHIBIT (21) - October, 1908.**

- J. Ankers, Superintendent of Waterworks, New Westminister City, 5 page report, "Re Water System".
  - "5. Under the old conditions countless numbers of salmon ascended to the Lake during the spawning season (all salmon, with the exception of sockeye and springs, spawn in the lake). Since the dam was built there is noticed only an occasional dead fish, where there used to be

thousands of salmon in all stages of putrifaction floating all over the lake." (New Westminster Archives, unprocessed files, re New Westminster Waterworks)

# **EXHIBIT (22) - December 9, 1908.**

Petition to the Lieutenant-Governor from the Municipality of Coquitlam, signed by John Smith (with 62 signatures). 7 concerns are raised in the petition.

- "1. the waters of Coquitlam Lake are not within the jurisdiction of the Province, nor are they waters to which the Water Clauses Consolidation Act, 1897 is applicable.
- 2. That a grant under the said Act cannot be made so as to effect the vested rights of riparian owners or so as to interfere with navigation and fisheries, and the building of such dam and the diversion of such water would interfere with all such rights.
- 5. That the construction of the proposed dam would practically dry up the River as the only reservation for the use of the public is 50 miners inches of water." (U.B.C. Special Collections British Columbia Electric Railway Company Box 85)

# **EXHIBIT (23) - February 8, 1909.**

Excerpt of a summary account by F.R. Glover, Manager, Vancouver Power Co., reporting on a meeting at New Westminster City Hall, of the Council and Citizen's Committee.

"With respect to the question of the purity of the water and the statements made by some of the gentlemen present that the water was not as good and pure now as before the erection of the dam, he pointed out that before the dam was erected it was sometimes necessary in the Fall of the year to send men with pitch-forks, to clear away the dead and rotting salmon which had accumulated at the intake. Mr. Stott, the Superintendent of the Waterworks, was present, heard what was said, and could vouch for the accuracy of this statement. In this respect at least, the water must have been improved at one season of the year anyway. Anyone who made the trip around Coquitlam Lake in those days could see not hundreds, but thousands upon thousands of dead salmon scattered along the beach and floating in the water. The erection of the dam, instead of attracting foreign matter, had really the opposite effect as it completed the only thing lacking to make it a perfect settling basin." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, file 7)

# **EXHIBIT (24) - February 10, 1909.**

W. Bodwell, of Bodwell & Lawsen, Barrister and Solicitors, to V. Larsen, legal department, British Columbia Electric Railway Company.

"The matter of the raising of the Coquitlam dam came before the "Executive" of the Federal Government on February 10th. A Mr. Wade from the government was opposing the application. Wade presented two objections: interference with navigation and fisheries "by destroying hatching ground for salmon". Bodwell states that a larger dam would be just as troublesome as a "five foot dam" for spawning fish, and that the proposed flooded lands above the dam would have no impact on the spawning fish. The Executive will meet again on March 17, and they will be prepared via their lobbyists for that meeting." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, pt. 7)

# **EXHIBIT (25) - February 24, 1909.**

9 page letter to Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa.

"I write you on behalf of the above Company and in connection with an application by it to the Government of the Province of British Columbia (now pending) for leave to increase the height of its present dam at Coquitlam Lake so as to raise the waters of Coquitlam Lake 60 feet. Considerable opposition has developed to the scheme, and at the last hearing before the Executive the Dominion Government through Mr. F.C. Wade objected to the scheme, and it is particularly in regard to this objection made by the Dominion Government and in hopes that you may be able through your efforts to induce the Government to withdraw such objection, that I am not writing you at length."

"Unexpected opposition developed, however, to the Company's scheme through various parties."

"Be that as it may, the fact remains that the Dominion Government has taken a hand in the game now and must be gotten rid of if at all possible, and the Company invokes your assistance for this purpose, and expects you to leave no stone unturned to accomplish this." "Mr. Wade, then appearing, took the following two objections, vis: Firstly: That the Company's works might interfere with navigation. Secondly: That we might interfere with the fisheries by destroying hatching ground for salmon, etc.... you will please endeavour to convince the Department that Mr. Wade's objections are not well-founded." "INTERFERENCE WITH FISHERIES: Two points were raised by Mr. Wade in connection

"INTERFERENCE WITH FISHERIES: Two points were raised by Mr. Wade in connection with this: First, that the construction of the new dam would prevent fish passing up stream. Secondly, that the construction of the dam would cause overflow of ground which fish might use for spawning purposes.

As to the first point, it is to be noted that the present dam, which is 11 feet high, and was constructed with the assent of the Dominion Government, is as much an interference in this respect as the 75 foot dam would be, because according to authority a 5 ft. dam would be effectual for this purpose as a 75 ft. dam. As a matter of fact the Company did at the insistence of and under the directions of Mr. C.B. Sword, the Dominion Fisheries Inspector, put in fish ladders in connection with the present dam to accommodate the fish, and the Company will if required be willing to furnish similar accommodation for the fish in connection with the proposed new dam.

As to the second point in the second objection, all the ground that the proposed new dam will overflow consists only of about 400 acres in addition to what is already covered, and all this additional flooded area consists of rock mountain sides and timber land, entirely unsuitable for spawning purposes. Mr. Wade's opposition on this point is rather ridiculous." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 7)

# EXHIBIT (26) - March 3, 1909.

Extract from F.R. Glover's diary, Manager, Vancouver Power Co. C.B. Sword, Inspector of Fisheries, just returned from Ottawa, where he spoke to his administrative supervisor about the impact the dam would have on the Coquitlam fisheries. Glover elaborates on how the Superintendent of Fisheries "recognized the importance of the undertaking to this portion of British Columbia." Sword was requested by the Superintendent to present a report on the Coquitlam fisheries to his Department. Glover tried to get information from Sword on the original appointment of the government's counsel, Mr. Wade, who opposed the project, but Sword had apparently nothing to do with Glover's theory that Wade was persuaded by Sword to oppose the project through the Fisheries.

"Mr. C.B. Sword, Inspector of Fisheries, called to examine plans for the new dam at Coquitlam Lake, and more especially to ascertain what arrangements had been made to permit the passage of salmon over the dam." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 7)

# EXHIBIT (27) - March 9, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"As to the Fisheries too, he [Minister of the Interior, Frank Oliver] felt that the general advantage of the scheme would more than compensate for any damage done." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 7)

# EXHIBIT (28) - March 13, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"I feel that excellent progress is being made in this matter. The Minister of Justice is down with erysipelas, has been confined to his house all week, and is likely to remain there an indefinite time. His Deputy is, however, an old and trusted official, and I have got him to withdraw the very unfounded plea that our case has anything to do with the conflict of jurisdiction re certain B.C. waters now being tried in the Courts. This is a big step in advance. I have again interviewed Oliver, and while he is not yet quite prepared to take a definite stand I think he will probably give his permission on condition that you fyle plans with the Minister of Public Works here which will be satisfactory as to safety of individuals, and as to the rights of runner lumber, waiving the minor points as to fisheries and navigation. As you tell me that eminent engineers have already pronounced your plans ample as to safety, and that you are arranging to give satisfaction to the lumbermen, I should think this would be satisfactory to you, and make everything smooth." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 7)

# EXHIBIT (29) - March 20, 1909.

2 page letter from Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"Between a fiery Minister of the Interior on the one hand, and an extremely technical Deputy Minister of Justice on the other, I am having a very difficult time in making progress. This satisfaction at least is mine, the Minister is willing to help us, and we will get what we want eventually, of that I am sure."

"After several careful readings of the material submitted I find that apparently you constructed your present works on the approval of the Provincial Government, and apparently without reference to this one. Oliver will not permit this again. He will give you the water right as above set forth, but he will interfere with construction unless fully satisfied with the plans, which he thinks should be submitted to the Public Works Department for an opinion as to their sufficiency for such a construction as will be safe, and as will let the log owners use the waters for running with fair facility, he does not place much importance on the navigation and fisheries aspect of the case."

"You will recognize by this time the utter impossibility of getting instructions to Mr. Wade to withdraw his opposition. The matter has got to be cleared up on the lines indicated, and until it is so this Government will not withdraw."

## EXHIBIT (30) - July 29, 1909.

Telegram from Lassant, Secretary, London office, British Columbia Electric Railway Co., to the Vancouver Power Company.

"Referring to your telegram of 26th. Hon. M.R. Gifford seen Oliver who will not oppose new dam replacing old one but raised following objection(s) to height (of) being increased. (One) danger to settlers in event of dam bursting (Two) injury(ies) to fisheries below dam (Three) injury(ies) to lumber interests (Four) Dominion Act provides water taken from river must return to river and consequently the permission (to) for which we ask is illegal although present diversion is condoned. Stop."

## EXHIBIT (31) - July 29, 1909.

Letter to R.H. Sperling, Acting General Manager, Vancouver Power Co., from the Company's secretary, marked private.

"Mr. Gifford yesterday morning saw the Hon. Frank Oliver who raised the following objections to the Dam being raised in accordance with our suggestion: --

- 2. Mr. Oliver also said that he had to consider the interests of the fisheries in the Coquitlam River. If the dam is heightened as we suggest, the Coquitlam River below the dam will be very largely deprived of water, thus starving the fish. This objection Mr. Gifford found rather difficult to answer, but pointed out that there was plenty of rain, and that the Coquitlam River is fed by other streams than the one flowing over the dam.
- 4. Mr. Oliver stated that there is a Dominion Act providing that any water taken from a river must return to a river. This, of course, would be impossible in our case as the water will flow through Lake Buntzen into Burrard Inlet. If this is so it is has presumably been illegal for us in the past to take water from the Coquitlam River.

If, however, you can furnish us will full particulars to enable the above objections to be met, it will be of great assistance to the Directors when they next meet Mr. Oliver." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, pt.7)

#### EXHIBIT (32) - August 3, 1909.

Letter from Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to British Columbia Electric Railway Company London office (copy supplied to R.H. Sperling, Vancouver Power Company).

"I am in receipt of your code cable reading as follows: "Referring to Coquitlam Dam we have met Oliver who, whilst not objecting to the new dam replacing old, objects to height being raised for following reasons: 2. Injury to fisheries below dam." In view of the fact that your present diversion is illegal, as stated in your cable, and that the present diversion is only 'condoned', I certainly think that Mr. Oliver should be pressed to pass amending legislation at the next session of Parliament of such a nature as will make your property rights secure in the future, when a new Minister or a new Government will arise." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 7)

## EXHIBIT (33) - August 7, 1909.

Letter to George Kidd, Secretary, British Columbia Electric Railway Company, from R.H. Sperling, Acting General Manager, Vancouver Power Co.

"The Inspector of Fisheries intimated some time ago that there would be no objection from the Department, as the present dam had already practically excluded fish from the Lake, and any large number of fish entering the Lake would be detrimental to the City of Westminster, as being likely to injuriously affect their water supply." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 7)

## EXHIBIT (34) - August 21, 1909.

F.R. Glover's diary, Manager, Vancouver Power Co. Glover met with Frank Oliver, Minister of the Interior, along with R. Smith (M.P.), Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, and R. Jardine.

"Until May last the Dominion had never asserted jurisdiction over water powers in the railway belt and until July 29th we had never been officially informed that the Dominion had any intention of interfering, so far as we were concerned, with the jurisdiction which had been so long in the hands of the Provincial authorities and up to this time unquestioned." "Among other things the Minister stated that some provision would have to be made, in the event of the stream drying up below the dam, for sufficient water for agricultural and domestic purposes for the settlers below the dam and within the watershed of the Coquitlam river." "With respect to the navigation of the stream and possible injury to fisheries, he did not appear to consider them of much importance." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 74, B1417)

## **EXHIBIT (35) - August 31, 1909.**

Memorandum to the federal Governor General in Council, from Frank Oliver, Minister of the Interior.

"The Company also desires approval so far as this department is concerned of its plans for the erection of the dam and other works. Before these lands are sold and before such approval is given certain interests require consideration."

"6. The question of possible injury to fishing interests. The undersigned is advised that salmon have in the past ascended this river in large numbers to spawn in the Lake but that they afterwards die and consequently prove detrimental to the waters as a source of domestic supply. The undersigned is of the opinion that no passage of fish is necessary in the new works, and that such provision may be dispensed with, subject to the approval of the proper officers of the Marine and Fisheries Department." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85)

#### **EXHIBIT (36) - September 8, 1909.**

R.N. Venning, Superintendent of Fisheries, Department of Marine and Fisheries, Ottawa, to C.B. Sword, Inspector Fisheries, New Westminster.

"Department informed Vancouver Power Company enlarging its dam in Coquitlam River. Strongly urged that general interest would be best served by preventing fish passing it, as in past it has been necessary [to] remove dead fish to prevent contamination [of] water supply.

If this correct no fishway should be built. Please wire your views." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4)

#### **EXHIBIT (37) - September 10, 1909.**

Telegram, from C.B. Sword, New Westminister, to R.N. Venning, Superintendent of Fisheries, Department of Marine and Fisheries, Ottawa.

"Just returned. Effective fish pass new Coquitlam dam difficult proposition. Company's objection not valid. Fish pass could be closed at any time desired." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4)

#### **EXHIBIT (38) - September 13, 1909.**

R.N. Venning, Superintendent of Fisheries, Department of Marine and Fisheries, Ottawa, to C.B. Sword, Inspector of Fisheries, New Westminster.

"I beg to acknowledge the receipt of your telegram of the 10th in reply to mine of the 8th instant, in regard to a fishway in the dam in the Coquitlam River, and I observe your opinion that the objection of the Company to build a fishway is not valid, as the fish pass could be closed at any time desired.

I am not quite clear as to what connection the closing of the fishway at any particular time would have with the company's objections to building a fishway, unless it be that after the fish had ascended by the means that would be provided, the loss of water through the fishway could be further prevented by closing it until the fish would be descending. You will remember that on the 2nd April, 1904, you informed the Department that the Vancouver Power Company Limited in order to secure a sufficient head of water to develop the power desired, was making a tunnel from Lake Beautiful at the North Arm of Burrard Inlet to Coquitlam Lake, and that their Plant was situated at the Lake first mentioned, and as you stated that Coquitlam Lake was resorted to by an early run of a kind of Sockeye Salmon for spawning purposes, and also that Cohoes and Dog Salmon resorted to this river for such purposes, you were instructed on the 23rd May of that year to have fishway built. While I do not find further correspondence on the subject, my understanding is that the fishway in question was built; but the Department is now informed that it has not been successful, and that practically ever since the dam was built salmon have been unable to ascend beyond it.

As intimated in my telegram of the 8th instant it is also strongly represented to the Department that the general interest would be better served by in no way interfering with the power the Company is seeking to develop, and it also appears that the City of New Westminster depends on the dam of this Company for its water supply, and that when the dam was first built and Salmon got above it, it was necessary to remove the dead fish to prevent pollution of the water supply.

The Department further understands that the Company has received permission to build a dam somewhere in the neighbourhood of seventy feet high, and that a large force of men is at present engaged in doing this, and if a dam of this height is really considered to be necessary, and that the general interest as well as that of the Company is served by such, I fear it would be an impossibility to make a successful passage for salmon over it, as I know of no device at the present time which would be likely to be effective in overcoming an obstruction even nearly so high.

I should be obliged for a full report from you as to exactly the conditions existing there, and what the Company is doing, and whether or not in your opinion it is advisable to call for a

means of enabling salmon to get into the Lake, as if I am correctly advised to the height of the proposed dam, I do not see how such could be done otherwise than by taking steps to prevent a dam of such height being placed there at all, and it may be that the general interest would be better served by the power that would be available at the dam, than by limiting such power to that which would be provided by a dam of moderate height over which a successful fishway could be built.

In this connection I may say that it is further represented to the Department that no fish whatever ever got up the fishway that was in the previous structure for several years past." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4)

#### **EXHIBIT (39) - September 29, 1909.**

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to R.H. Sperling, Acting General Manager, Vancouver Power Co. After a coded telegram sent to him on September 28, Thompson replies.

"I interviewed the Deputy Minister of Marine, who on getting his fyle found that the Inspector had reported on this matter, but not at all completely, and he further said that the report was not favourable.

He told me that he had written back on September 17th for a very full report, which he expects to arrive shortly.

The Deputy Minister intimated that his official would report solely with respect to the effect of the Fisheries, and personally thought there could be no doubt that the building so high a dam would practically destroy the run of fish up the Lake.

He said further that you might be able to make it appear that the fulfilment of the Company's project would be much more beneficial than would the loss to the Fisheries be detrimental, in which case consent would probably be given." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 85, part 6)

## EXHIBIT (40) - October 6, 1909.

F.R. Glover, Manager, Vancouver Power Co., to Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa.

"I have to acknowledge receipt of your favour of September 29th with reference to this matter, and have noted contents.

The attitude of the Fishery Board is now the only thing that is causing us any anxiety, and I shall be obliged if you will wire me at once the substance of the inspector's report when it is received at Ottawa.

As I have already written you with reference to this subject, pointing out the injury which would result to the water supply of the City of New Westminster if salmon were to enter the Lake in any number, it is not necessary for me to enlarge on this subject again. I would suggest, however, that you see the Hon. Mr. Templeman, and secure his assistance with the Minister if any difficulty arises; in fact, it would probably be a good move to get him to accompany you to the Minister of Marine and Fisheries and urge the latter not to allow the matter of Fisheries to stand in the way of our development, which is of so much importance to the country at large. I understand from a personal friend of the Minister that he expressed himself before leaving Vancouver as being willing to lend his best endeavours to get our arrangement with the Government closed satisfactorily." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### EXHIBIT (41) - October 7, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to R.H. Sperling, Acting General Manager, Vancouver Power Co.

"I have been keeping after the Deputy Minister of Marine in order to try and obtain the consent of that Department with regard to the Fisheries aspect of this case. Yesterday the Deputy had not received the reports, for which he had called, from his officials in B.C., but promised to look into the matter and see me again to-day. I have just interviewed him further, and as a result he has wired his people to hurry forward their reports." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### EXHIBIT (42) - October 7, 1909.

C.B. Sword, Inspector of Fisheries, New Westminster, to R.N. Venning, Superintendent of Fisheries, Department of Marine and Fisheries, Ottawa. Sword fails to comment on the fact that he provided instructions for the British Columbia Electric Railway Company to modify the fish ladder in 1906.

"Yours of 13th ulto. and telegram of yesterday re proposed dam on Coquitlam River received

I delayed replying as I wished to observe how far the fish way was effective during the cohoe run now due.

The conditions when the fish way was built were different from what had been represented to me. The slope was greater and instead of the fish way coming out in a deep pool it came out on a bare apron. Some alterations were made and some fish as I can say from personal observation did afterwards go up.

I am not prepared to say that the shutting off of such fish as use it from their spawning ground in the lake is of importance enough to justify the refusal of permission to build the proposed dam.

These fish consist mainly of the early run of sockeye, referred to in your letter (which our regulations do not allow to be legally caught) and cohoes which are apparently not very particular where they spawn." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4)

#### EXHIBIT (43) - October 13, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to R.H. Sperling, Acting General Manager, Vancouver Power Co. Thompson having trouble getting Templeman, finally does, regarding the Fisheries.

"He had not read the fyle, but while I was with him he phoned the Deputy Minister of the Interior for it, and faithfully promised me to peruse it to-day or tomorrow at latest. While he refused to commit himself he seemed very favourably disposed, and with regard to the fisheries side of the matter went so far as to say that he thought the power project very much more important in the public interest than the conservation of the spawning grounds of Coquitlam Lake.

I may just add that Mr. Templeman declined to take the matter up with the Minister of Marine & Fisheries until he read the fyle, and decided upon his general course of action." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### EXHIBIT (44) - October 18, 1909.

R.N. Venning, Superintendent of Fisheries, Department of Marine and Fisheries, Ottawa, memorandum, "Re Dam in Coquitlam River, British Columbia."

"On the 8th September last Ralph Smith, M.P., accompanied by the legal representative of the Vancouver Power Company called at the Department, and explained that the Company in question had obtained by Order in Council certain lands and privileges about that portion of the Coquitlam River and Coquitlam Lake .... and it appears that in the Order in Council mentioned was made of the fact that the interests of the fisheries had to be looked to. As long ago as April 1904 the Department was informed by the Inspector of Fisheries that the Vancouver Light and Power Company was building a tunnel from Lake Beautiful to Coquitlam Lake where their Plant was located, in order to enable it to develop the power desired, and he requested to be directed as to the steps he should take to cause means to be provided to enable fish to ascend to Coquitlam Lake for spawning purposes, and he was instructed to have a fishway built.

The fishway in question was built; but from the information before the Department it seems that it has not been efficient, and that no Salmon have got up to Coquitlam Lake since the dam was placed there. In fact the Company urges that it is essential from a sanitary point of view that they should be prevented from doing so, as before the dam was placed there, and when Salmon had free access to the Lake, it was found necessary to send men there at times to clear the Lake of dead Salmon following the spawning period, in order to prevent diminution of the water supply to New Westminster which was obtained from Coquitlam Lake

It appears the Company has obtained the privilege of building a dam seventy feet high, and that a large force of men is engaged in carrying out the work, and that a vast sum of money will be spent in making the improvements now under way. The company asks that it be not called upon to provide a means of enabling Salmon to go above the dam, as the Lake in question is resorted to by only the coarser kinds of salmon, and the public interest will be much better served by the Power and Water supply that will follow the building of the dam. It may be here explained that no device is at present known that would be successful in enabling fish to surmount a dam seventy feet high, and if the Company is therefore called upon to provide a free access to Salmon to Coquitlam Lake, it would be tantamount to compelling the Company to not build the higher than say from twenty to thirty feet. The Inspector of Fisheries, who was called upon for a full Report in the matter, states that but few fish got into the Lake through the previous fishway, as it was not well built; but he is not prepared to say that the preventing of Salmon from getting to the spawning grounds in Coquitlam Lake is of sufficient importance to justify refusing the Company to build the proposed dam, as the fish that originally resorted to Coquitlam Lake consist of an early run of Sockeyes which ascend the River before the fishing season opens, and are therefore of no commercial value, and in addition to these Cohoes, a coarse kind of Salmon, seem to be about the only fish that originally ascended to the Lake.

It will not be forgotten that this Lake has now been shut off from these spawning fish for four years past. It is not a very important spawning area, and as above explained the Sockeyes that resort to it are of no commercial value, and there does not appear to be any indication that the run of Cohoe Salmon is decreasing.

The information before the Department would seem to indicate that the general interest would be served by allowing the proposed dam to be completed, and if the Minister approves the Company will be informed that the circumstances do not seem to be such as

call for the provision of a fishway in the proposed dam." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4).

#### EXHIBIT (45) - October 20, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to F.R. Glover, Manager, Vancouver Power Co..

"Please follow up the Fishery side of the matter earnestly, as, notwithstanding the fact that the final decision concerning our agreement is deferred until December 1st, it is important that all smaller questions should be settled and out of the way before that time." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

## EXHIBIT (46) - October 22, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to Deputy Minister of the Department of Marine and Fisheries, Ottawa.

"Dear Sir. Possibly you may not have on your fyle anything to show that I act as the Agent at Ottawa of the British Columbia Electric Railway Company, Limited, and its subsidiary Companies. I am sending you this letter to overcome any such possible deficiency, and the matter about which I am more particularly interested at the present moment is the report, which your Department was expecting from your Engineer, which was deputed to look into the matter of the proposed Dam at Coquitlam Lake. I would be glad to hear from you as to whether this report has been received by you, and if so, would like to know the decision of your Minister with reference thereto." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4)

#### EXHIBIT (47) - October 23, 1909.

R.N. Venning, Superintendent of Fisheries, Department of Marine and Fisheries, Ottawa, to C.B. Sword, Inspector of Fisheries, New Westminster.

"Adverting to previous correspondence in regard to the necessity for a fish-way in the Dam now being built by the Vancouver Light and Power Company, in the Coquitlam River, I may say that I have submitted the matter to the Minister, in the light of the information afforded by you, and after consideration of the matter he has decided that the general interest does not call for the provision of a fish-way in the Dam in question.

It will, therefore, not be necessary for you to cause the owners to provide for a free passage of fish in this Dam"

#### EXHIBIT (48) - October 26, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to F.R. Glover, Manager, Vancouver Power Co..

"I note your instruction to follow up "the Fisheries side of the matter earnestly", and have been doing so. I am told that the report on the matter is now in the Department from the B.C. official, and am to-day seeking an interview with the Minister of Fisheries to see how the matter stands."

"I am very glad that the enemy showed so little tact in the interview with Mr. Oliver. He is not a man who can be bullied or likes to be bullied." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### EXHIBIT (49) - October 28, 1909.

G.J. Desbarats, Acting Deputy Minister of Marine & Fisheries, to Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa. The letter was copied by Thompson and sent to the Vancouver office.

"I beg to acknowledge receipt of your letter of the 22nd inst., requesting to be informed if the report for which the Department was waiting, as to the necessity for providing a fish way in the dam now being built in the Coquitlam River, has been received, and if so, as to the decision reached by the Minster in the premises."

"In reply I may say that the report in question reached the Department some time ago, and immediately following its receipt I submitted the matter to the Minister in the light of the information obtained, and after consideration thereof he decided that the public interest does not demand that a fishway should be placed in the dam now being built by the Vancouver Power Company in the Coquitlam River, and the Inspector of Fisheries for the District was so informed on the 21st. instant." (DFO - AW1-5474 - Reel 46a, file # 2235, part 4)

#### EXHIBIT (50) - October 28, 1909.

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to F.R. Glover, Manager, Vancouver Power Co.. Thompson failed to contact the Minister of Marine & Fisheries and instead contacted the Deputy.

"He told me that it was against the Custom of Department to show the reports received from its officers, but he was good enough to say that this particular report was somewhat noncommittal in character, and that while their officer did not specifically recommend the granting of our application, still he did not take very strenuous ground against it. I asked the Deputy if, in view of this, the decision of the Department would not finally be made on the basis of the relative importance to the public of the power and the fisheries, and he said undoubtedly it would.

He certainly gave me the impression that we need expect no serious opposition from him, but he advised me to see the Minister, which I will certainly do." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### **EXHIBIT (51) - November 1, 1909.**

F.R. Glover, Manager, Vancouver Power Co., to Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa.

"I am obliged for your favour of October 26th, and note that the report of the B.C. Inspector of Fisheries, re Coq. Dam, has been received at Ottawa. I have reason to believe that this report will not be favourable to our proposition, as the gentleman in question, I understand, is more or less in sympathy with some of the objectors to the Dam. For this reason it will be necessary for you to use your very best influence with the Minister, pointing out to him that it cannot be shown that the Coquitlam River is now, or ever was, of any special value to the fisheries in British Columbia, and as a matter of fact, such salmon as did enter the Lake at one time, have since been excluded by the erection of the Dam which was placed there in 1904. Further, to permit the salmon (which are largely of an inferior species) to enter the Lake, would mean serious injury to the New Westminster water supply.

I shall also be obliged if you will see the Minister immediately on his return to Ottawa, and ascertain the date fixed for hearing the objections to the Dam proposition. The matter is so very serious to us that we trust the hearing will not be delayed beyond the 1st December,

which was the date the Minister advised me would probably be set." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### **EXHIBIT (52) - November 1, 1909.**

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to F.R. Glover, Manager, Vancouver Power Co. Repeats the contents of the entire Desbarats, Deputy Minister of Marine and Fisheries letter of October 28, and then adds the following comments:

"As I had taken up the whole matter of the construction of the dam in its relation to fisheries interests, this letter did not seem quite comprehensive enough to me, dealing as it did exclusively with the fish-slide, so I interviewed the Minister of Marine himself, and asked him if it was meant to give us a free hand in construction, to which he replied, after reading the letter above quoted, that it was so intended, and that we would experience no further interference from his Department. I am glad that this phase of the case is now definitely and satisfactorily concluded." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### **EXHIBIT (53) - November 3, 1909.**

F.R. Glover, Manager, Vancouver Power Co., to Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa.

"I have read your letter of October 28th with much interest, and am glad that the report of the Inspector of Fisheries for British Columbia is not likely to stand seriously in the way of an arrangement regarding the construction of the Dam. I trust that you will soon be able to send satisfactory news regarding the position taken by the Minister of Marine towards our enterprise." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

#### **EXHIBIT (54) - November 6, 1909.**

Andrew T. Thompson, Barrister for the British Columbia Electric Railway Company, Ottawa, to F.R. Glover, Manager, Vancouver Power Co.

"I am in receipt of your letter of the 1st which has evidently crossed mine, in which I was able to tell you that the Fisheries part of this matter had been satisfactorily adjusted. I note your instructions to see Mr. Oliver immediately on his return, and to urge him not to delay the hearing past December 1st, and also to wire you the result of this interview." (U.B.C. Special Collections - British Columbia Electric Railway Company - Box 84)

## **EXHIBIT (55) - November 5, 1910.**

R.S. Stronach, Dominion Inspector, Coquitlam dam, to R.E. Young, Department of Interior.

"During the spring and summer months numerous salmon were in the habit of coming up the Coquitlam River and spawning in the lake, after spawning the fish died in the thousands, Indians being employed by the City of New Westminster to remove the putrifying bodies from near the intake, this work being so objectionable that white men would not undertake it." (National Archives, RG 89, vol.7, file 5210-1)

#### EXHIBIT (56) - May 22, 1911.

From a Memorandum Re Technical Evidence in Support of Defence prepared by the Justice Department in the City of New Westminster and Matthew Marshall vs the King in the Exchequer Court of Canada.

"Evidence can be secured to shew the City never excercised any control over the Coquitlam reserve [federal Order-In-Council Forest Reserve, May, 1910], did not patrol the area for protection from fire, and that the general public were in the habit of going on the property for fishing and picknicking purposes. That the City did not even attempt to prevent the salmon "run" during the spawning season, when thousands of full grown salmon died in the lake and had to be raked from in front of the City's intake pipe." (National Archives, RG 89, vol.8, file 5210-5-2)

#### **EXHIBIT (57) - September 29, 1911.**

Coquitlam Star newspaper article, Some History of Coquitlam, page 1.

"Recreation. The fishing in the Pitt and Fraser Rivers is always good, year after year. The Coquitlam River is not as good as it was, on account of the works of development at the Coquitlam dam."

## EXHIBIT (58) - October 6, 1911.

Coquitlam Star newspaper article, *Coquitlam, Past and Present*, page 1. This article reappeared in the B.C. Magazine, October 1911, Vol. 7: 1099-1103, "Coquitlam, Yesterday & Today".

"The word is of Indian origin, and pronounced by them as if it were spelled Kwere-quit-lam, and means small red salmon, a fish which teemed up the Coquitlam every year in April, and as an article of diet, would not be surpassed for its flavour and nutritive powers. From this small fish, the locality and the river took the name, which has become so intimately associated that many are in favor of retaining it, whilst others are in favor of adopting some new name which would possess more significance with the financial world."

#### **EXHIBIT (59) - April 3, 1912.**

Coquitlam Star newspaper, under 'District News', page 7.

"Angling enthusiasts at the Dam have take some nice catches of trout since the opening of the season. Sluicing has now almost put a stop to this pastime, filling the river with mud."

#### **EXHIBIT (60) - May 1, 1912.**

Coquitlam Star newspaper, under 'District News', page 7.

"Coquitlam Lake. Surveyors running contour lines around the lake report having seen several black bear, but as yet none have been bagged by the local nimrods. A number of fine steelheads have been taken from the river during the past week, and several salmon have been seen. The latter appear to be cohoes, although their presence is difficult to explain so early in the year."

### **EXHIBIT (61) - May 1, 1912.**

Coquitlam Star newspaper article, Engineer says no more silt in River, page 9.

#### EXHIBIT (62) - May 15, 1912.

Coquitlam Star newspaper, under 'District News', page 5.

"Coquitlam Lake. A good-sized black bear fell victim to one of the hunters from the railway camp on Friday. No less than three were seen. Several attempts have been made to bring others to camp, but without success. The bear came to the river for salmon, which fall an early prey while crossing the narrow parts of the river.

Salmon are running plentiful up the Coquitlam and the small creeks which feed it. A large number find their way up Gold Creek, the operations of the dam serving to send them up the smaller stream. The fish are mostly sockeyes with an odd steelhead."

#### EXHIBIT (63) - May 18, 1912.

M. Matheson (fisheries guardian?), to F.N. Cunningham, Chief Inspector of Fisheries, New Westminster.

"I beg to report that I went out to the Coquitlam Dam on Saturday the 15th as instructed and found hundreds of Salmon dead below the dam and the water black with them in two little pools below the dam there was none of the officials there with the exception of the time keeper and he said that he heard the Engineer say that the New Westminster people did not want Salmon in the Lake." (DFO, RG 23, v.2239, File 34, part 1)

### EXHIBIT (64) - May 21, 1912.

F.H. Cunningham, Chief Inspector of Fisheries, New Westminster, to Mayor John Lee, New Westminster City.

"It has been brought to my notice that a considerable number of fish are lying dead below the Coquitlam dam, there being no fishway provided in this structure which will allow their passage up to the lake for spawning purposes.

As I understand this is the source of the water supply for the City of New Westminster, will you kindly inform me if the City is in receipt of any advice on this question and how it would view the action of enforcing the regulation regarding the installation of fishways in dams in this instance."

#### EXHIBIT (65) - May 28, 1912.

Coquitlam Star newspaper, under 'District News', page 5.

"Coquitlam Lake. Trout fishing in the Coquitlam River is still poor, notwithstanding the cessation of sluicing. Some good trout have been taken in the Lake, but they are not plentiful."

#### EXHIBIT (66) - June 4, 1912.

John Lee, Mayor, New Westminster City, to F.H. Cunningham, Chief Inspector of Fisheries, New Westminster.

"In reply to yours of the 21st ult. I might state that we have no advice officially in connection with the fish in Coquitlam River near the Dam.

You are correct in stating that Coquitlam Lake is the source of New Westminster's water supply, and we want to be very careful to do nothing that will in any way interfere with the purity of the water supply, and our only desire is that nothing shall be done or allowed that

will do anything to pollute or make impure the waters of Coquitlam Lake." (New Westminster City File #34, letter No. 533)

## EXHIBIT (67) - July 24, 1912.

Coquitlam Star newspaper, under 'District News', page 4.

"Coquitlam Dam. Fishing on the lake has become a rather popular pastime during the evenings of late, but while it provides a change from the ordinary routine of work, it has not proved very successful from the standpoint of the angler. Squaw fish are to be had in numbers at any time, but very few trout have made their appearance. When they are caught, they rarely scale less than a pound in weight."

## **APPENDIX B - MAP SOURCES**

- **MAP 1** Victoria Archives. GR 437, Vol. 40, file 13180. Department of the Interior, Ottawa, August 8, 1905.
- **MAPS 2, 4** National Archives. RG 89, Vol. 8, file 5210-1. Segments of map from Plan and Tracing by R.S. Stronach, blue print T2154, March 9, 1911.
- **MAPS 3, 3a, 5** Coquitlam Reservoir Hydrographic Survey. Conducted by Public Works Canada. Scale 1:12,500. Plotted, February 6, 2001.
- **MAP 7 -** Provincial Archives. GR 87, Box 24, file 18. Pitt River Wagon Road, 1876, and rerouting of road to one bridge over the Coquitlam River.
- **MAP 8** National Archives. RG 89, vol.8, file 52-10-3, vol.1. 1912 map of the Coquitlam watershed reserve.
- **MAP 9** National Archives. RG 89, Vol.20, file 7300-2-9 (1). Department of Interior, Ottawa, June 21, 1912.

# APPENDIX C: SPAWNING HABITAT SCENARIOS OF THE FORMER COQUITLAM LAKE AND TRIBUTARIES

As shown in chapters 2 and 3, early records indicate that four species of salmon frequented the Coquitlam Lake area prior to dam construction. However, there appear to be no formal records on the quality and extent of former tributary salmon spawning habitat to Coquitlam Lake proper, other than a recent discussion in a B.C. Hydro report on the possibilities of this matter. <sup>36</sup> To help demonstrate and quantify the extent of former spawning grounds, historic and bathymetric mapping of the Coquitlam Reservoir was consulted, identified as Maps 1 through 5 in this section.

According to the Vancouver Power Company records, the original elevation contour of Coquitlam Lake was at about the 432-foot level (131.7 meters) above sea level. The corresponding original Lake contour level is featured in a bold dotted line on bathymetric Maps 3, 3a, and 5. The bold and dotted lines on these three maps indicate boundaries for two historically significant spawning tributary areas: (a) the top or northern end of the former Coquitlam Lake, at the mouth of the upper Coquitlam River, and; (b) the mouth of Cedar Creek area. Map 1 and the relevant contour on Maps 3, 3a, and 5 indicate the original shape and location of Coquitlam Lake. Map 1 also shows all of the main tributary streams to Coquitlam Lake indicating some additional spawning potential, and the 10 foot flooding crest boundary of the first dam.

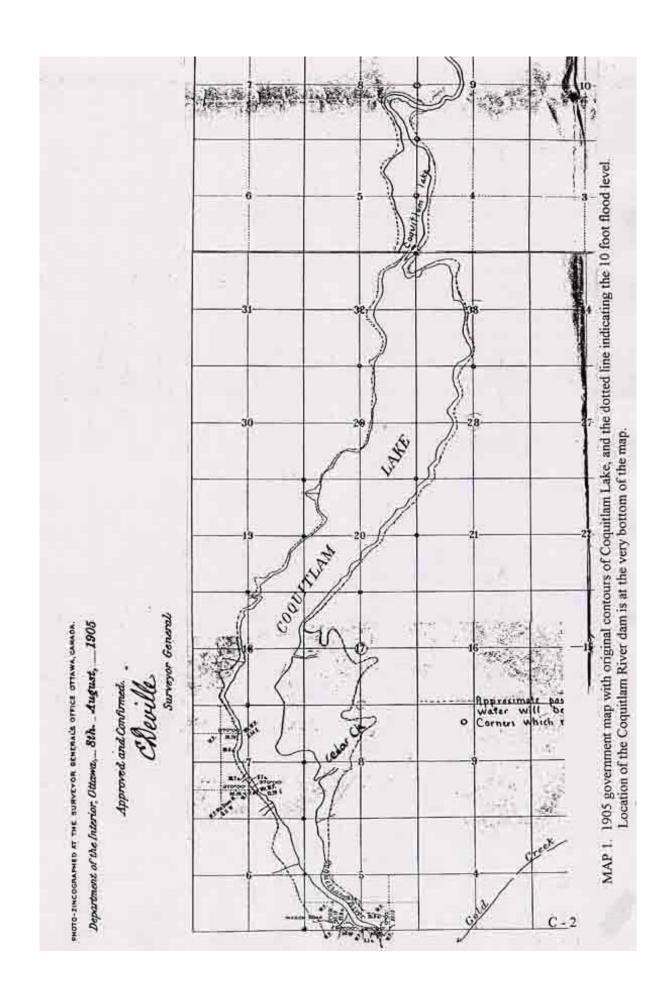
## A. THE NORTH END OF COQUITLAM LAKE

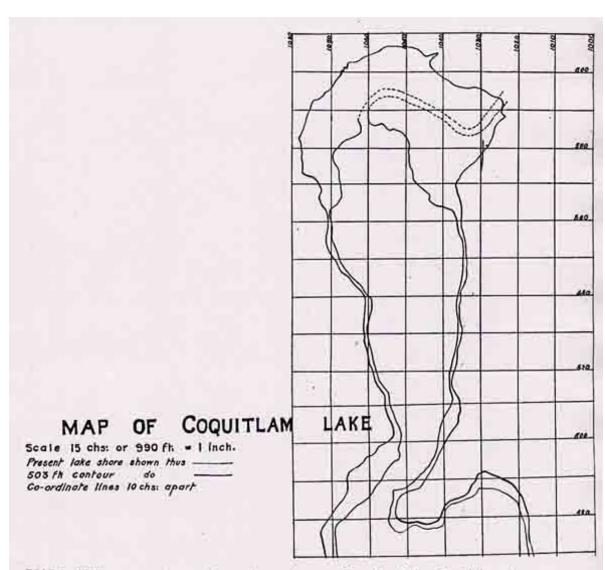
Maps 1 (year 1905) and 2 (year 1911) indicate the approximate original curving path and width of the upper Coquitlam River where it entered Coquitlam Lake. This information is valuable as it determines the approximate extent of previous spawning channel and forested flat terrain on the mouth area of the upper Coquitlam River. With respect to Maps 1 and 2, the bathymetric contour Map 3 (year 2001) is at odds with them, in that Map 3 demonstrates a greater extent of the original non-flooded lands at the upper end of Coquitlam Lake. In this case, the 2001 bathymetric map is considered to be more reliable than the 1905 and 1911 maps, simply because it is current and reasonably accurate. Therefore, the bathymetric map is our reference for estimated calculations on possible former spawning habitat for both the northern end of the Coquitlam Reservoir and the Cedar Creek areas.

The approximate location and extent of spawning habitat of the upper Coquitlam River is shown on Map 3a, a close-up of Map 3, with approximately 1300 meters of gently inclined river channel. Within this northern area, two tributary creeks joined the upper Coquitlam River from the west (unnamed creek) and northwest (Alpine Creek). These creeks may have had good spawning potential in their lower reaches, each with approximately 250 meters of spawning channel. Therefore, the approximate extent of spawning channel for the upper Coquitlam River, combined with the two western tributaries, amounts to approximately 1,800 meters in total. Beyond the northeast section of the Coquitlam Lake area, no salmon were able to ascend the upper Coquitlam River due to a large waterfall, a natural obstruction.

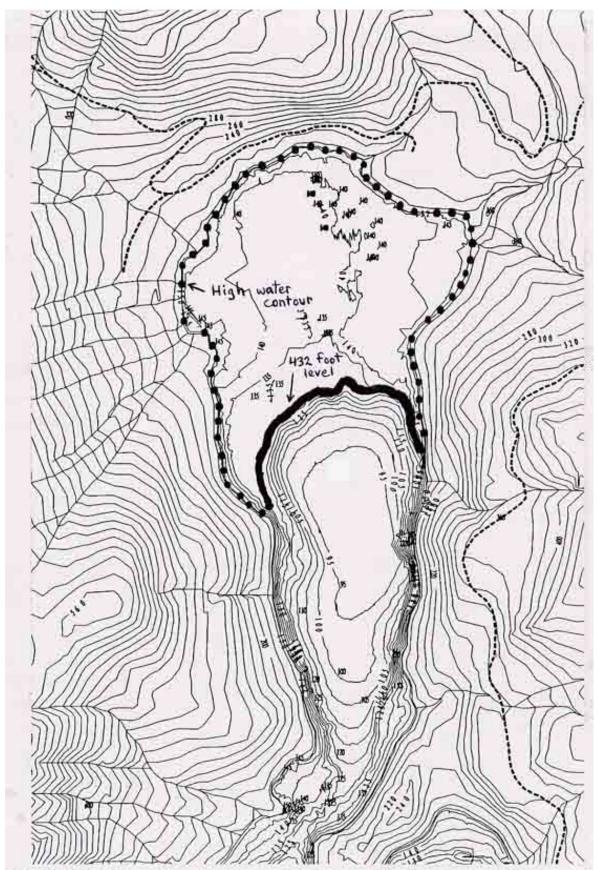
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<sup>&</sup>lt;sup>36</sup> B.C. Hydro, Historic Passage for Anadromous Fish report, June 2001.

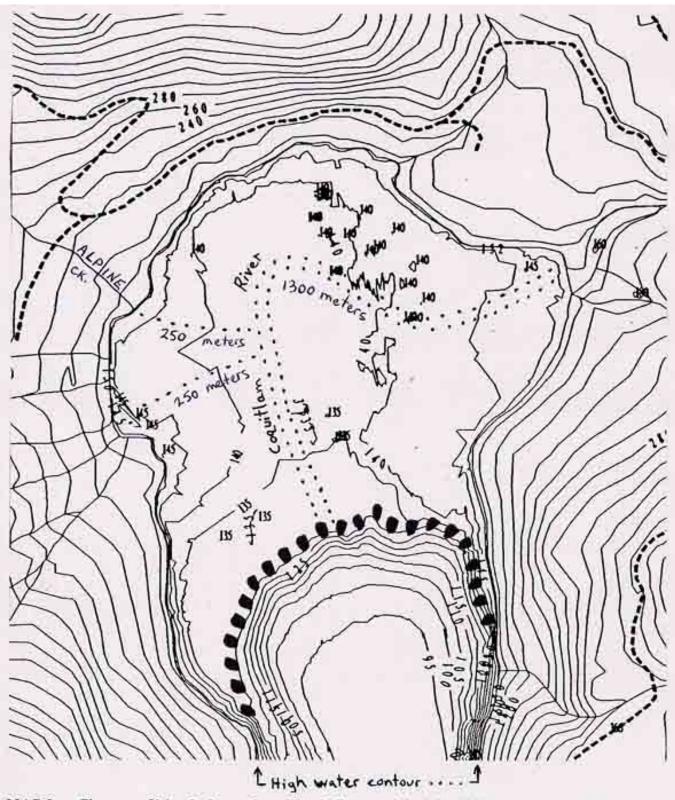




MAP 2. 1911 government map of the northern perimeter of Coquitlam Lake. Outside boundary line indicating final reservoir flood zone of the second dam. Dotted line indicates approximate path of the Coquitlam River entering Coquitlam Lake.



MAP 3. 2001 Bathymetric and contour map. The lower solid line indicates the 432 foot level of the original Lake, and the outside dotted line indicates the 70 foot flood margin of the Reservoir.



MAP 3a. Close up of Map 3. Large dotted line indicates original Coquitlam Lake level of 432 feet. Smaller dotted lines indicate approximate locations and lengths of former tributaries and upper Coquitlam River channel.

During a draw-down period of the Coquitlam Reservoir in 1979, B.C. Hydro and the Greater Vancouver Water District granted archeologists access to conduct the first studies near Cedar Creek on historic Kwikwetlem Nation occupation sites. <sup>37</sup> The discovery of occupation sites and related artifacts are directly linked to the presence of salmon and spawning grounds where the Kwikwetlem people caught and prepared salmon. By inference, the potential for occupation sites by the Kwikwetlem nation could be more strongly considered with regard to the upper Coquitlam Lake area, where conditions for spawning grounds may have been more abundant, and where there was ample and suitable terrain for fishing and hunting camps. There was no reference to this possibility by archeologists or anthropologists in the early 1980s to determine if similar remains are to be discovered in the upper flooded Coquitlam Lake area. In a recently published report by B.C. Hydro, one site was discovered on the eastern shoreline south of where the upper Coquitlam River enters the present Reservoir. <sup>38</sup>

## B. THE SOUTHEAST COQUITLAM LAKE AREA - CEDAR CREEK

In the former southeast Coquitlam Lake area, both Cedar and Branch Creeks, located on maps 4 and 5, are thought to have had strong potential for former salmon spawning habitat. The Cedar Creek tributary to Coquitlam Lake provided adequate annual water flow and habitat for spawning salmon, a scenario discussed in a recent B.C. Hydro report. <sup>39</sup> The inundated portion of Cedar Creek is approximately 1300 meters in length, and Branch Creek 1100 meters, as shown on map 5. Cedar Creek has the greater flow of the two streams, with its basin nearly ten kilometers in total length, in comparison with Branch Creek's basin that is a fraction of that area.

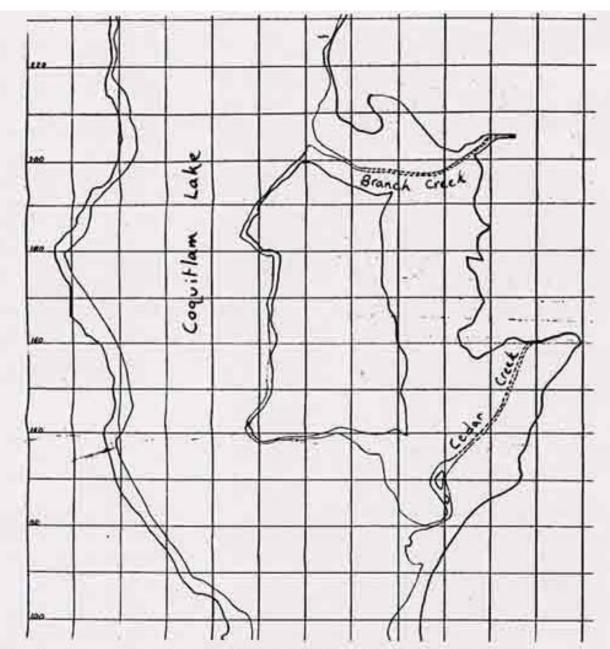
As mentioned in section 3(a), another strong indicator that Cedar Creek had salmon spawners may be provided by the fact that the Kwikwetlem Nation had pre and post-contact (prehistoric and historic) settlements in the immediate area. Studies conducted from 1979 to 1981 yielded important discoveries for 6 Kwikwetlem sites in this area, DiRq 1 through 6, which are shown on map 6. Speculation as to the age of these sites by archeologists range in the thousands of years, and stemming from as much as 8,500 years ago. These initial excavations and reports have led to more studies recently published in a B.C. Hydro report, where 8 additional sites have been discovered in this area alone. 40

<sup>&</sup>quot;... the timing of the archeological assessment coincided with British Columbia Hydro's decision to reface the 1913 earthen dam with rip-rap, thereby necessitating the draining of the lake to its lowest level in more than 70 years. Owing to these circumstances, the two-person survey crew was presented with approximately 50 kilometres of recently and eroded shoreline, and precious little time or equipment to facilitate the reconnaissance. Working within these contraints, the survey recorded three historic sites and six prehistoric sites." Wright and Williams, B.C. Midden, December 1981, pages 1-2.

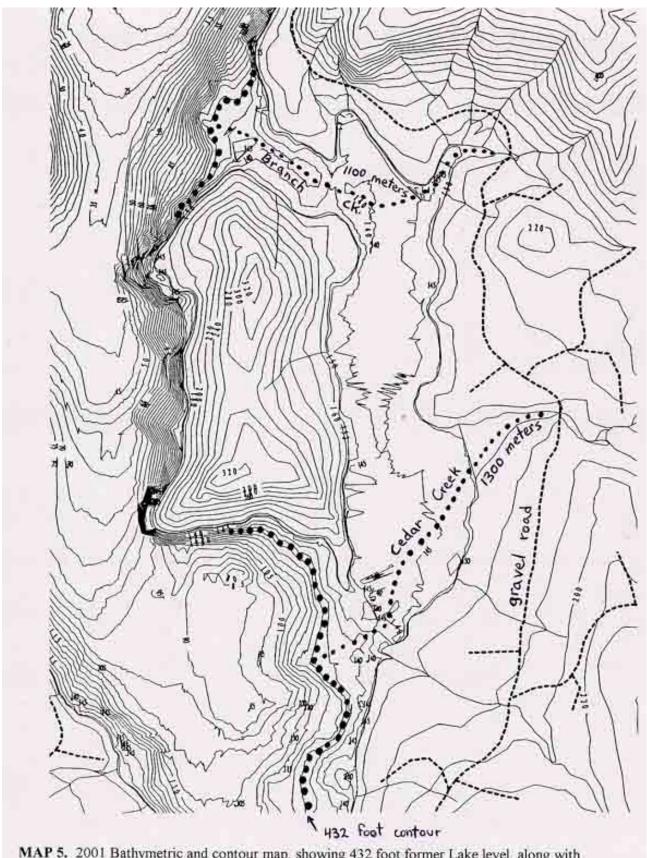
<sup>&</sup>lt;sup>38</sup> B.C. Hydro, *Heritage/Archeological Resources Overview*, May 2001. Pages 25, 83.

<sup>&</sup>lt;sup>39</sup> B.C. Hydro Historic Fish Passage report, June 2001.

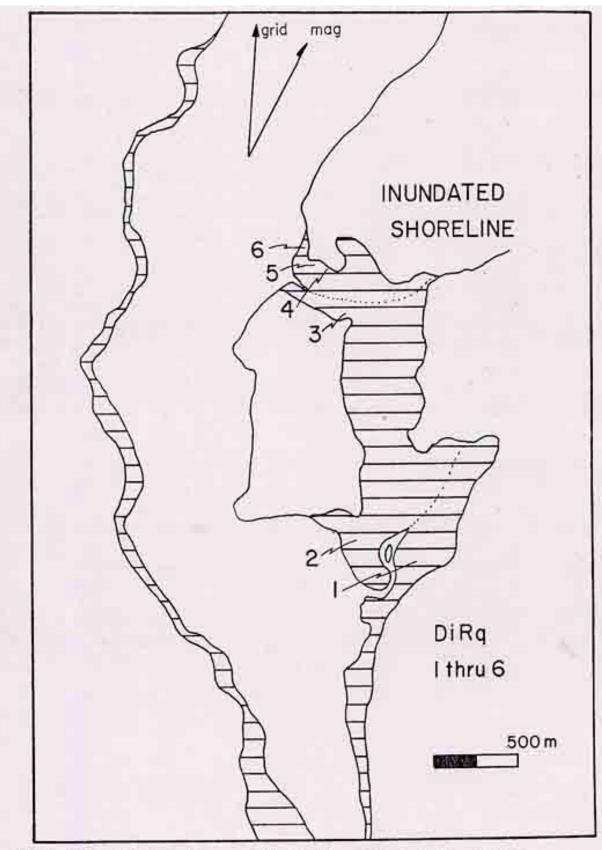
<sup>&</sup>lt;sup>40</sup> B.C. Hydro, *Heritage/Archeological Resources Overview*. Page 23 and following.



MAP 4. 1911 government map of the southeastern perimeter of Coquitlam Lake, at Cedar Creek Outside boundary line incidates final reservoir flood zone of the second dam, with inside line showing Lake boundary. Lower dotted line indicates location of Cedar Creek channel, and top dotted line indicates location of Branch Creek channel.



MAP 5. 2001 Bathymetric and contour map, showing 432 foot former Lake level, along with approximate locations and lengths for flooded Cedar and Branch Creek channels.



MAP 6. Map of archeological sites near Cedar Creek from 1981. Copied from M. Wright, 1981.

# APPENDIX D: THE COQUITLAM RIVER - FLOODING, ALTERATIONS, WATER LICENCES

Along with the impassable obstruction to salmon migrations into the former Coquitlam Lake area, and the withdrawal and control of significant water flow of the Coquitlam River by the Vancouver Power Company downstream of the new dam, <sup>41</sup> there were two other issues in that period which impacted the remaining salmon habitat and water flows on the lower Coquitlam River.

#### A. The removal of the east fork of the Coquitlam River channel near the C.P.R. bridge

Just above the location of the Canadian Pacific Railway bridge, as shown on maps 8 and 9 in this section, the Coquitlam River forked into two channels. These branches, located on relatively flat terrain, were most likely created as a result of heavy flood conditions, the random dynamics of natural debris obstructions, and the sudden shift of river channel bedload. According to correspondence from 1876, <sup>42</sup> regarding the washout of one of two bridges, these river branches were in existence long before the encroachment of European settlers. The old Pitt River Wagon Road, as shown on Map 7, previously crossed both sections of the lower Coquitlam River branch, and then was moved to make one bridge crossing below the lower junction of the fork, alongside the location of the Kwikwetlem Reserve No.2. (created in 1879 by a provincial Commission).

38 years later, in 1914, solicitors for the City of Port Coquitlam filed a complaint to W.J. Roche, the Minister of the Interior in Ottawa, with regard to the flooding of the Coquitlam River:

"We have been instructed to write to your Department with reference to the encroachments being made by the Coquitlam River on the adjoining lands. During the winter months this River floods considerably and has changed its course at different times, cutting off large tracts of land and eating away the banks at other places, particularly in its course between the C.P.R. Railway bridge and the Fraser River.

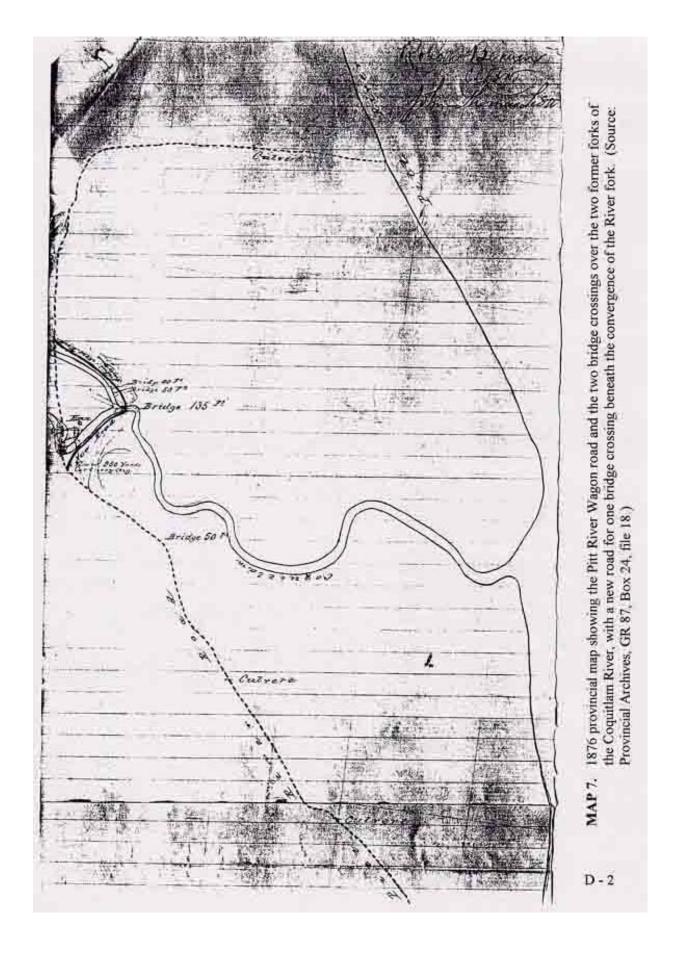
At the present time it has carried away a large part of the Municipal Road, and has formed a new current running through the property of several house-holders.

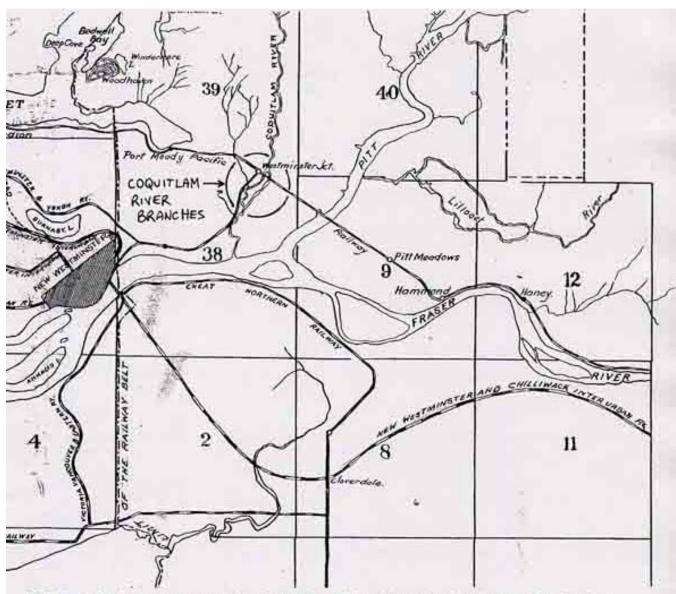
It is impossible for the City to cope with the situation, without some assistance from the Government, and as we believe that the Government claims control of this River below the railway bridge, we feel that the City is justified in asking some cooperation from your Department in endeavouring to save the property of the riparian owners." <sup>43</sup>

<sup>&</sup>lt;sup>41</sup> The second enlarged tunnel doubled the capacity of water diversion from the enlarged Coquitlam Reservoir to the Buntzen Reservoir.

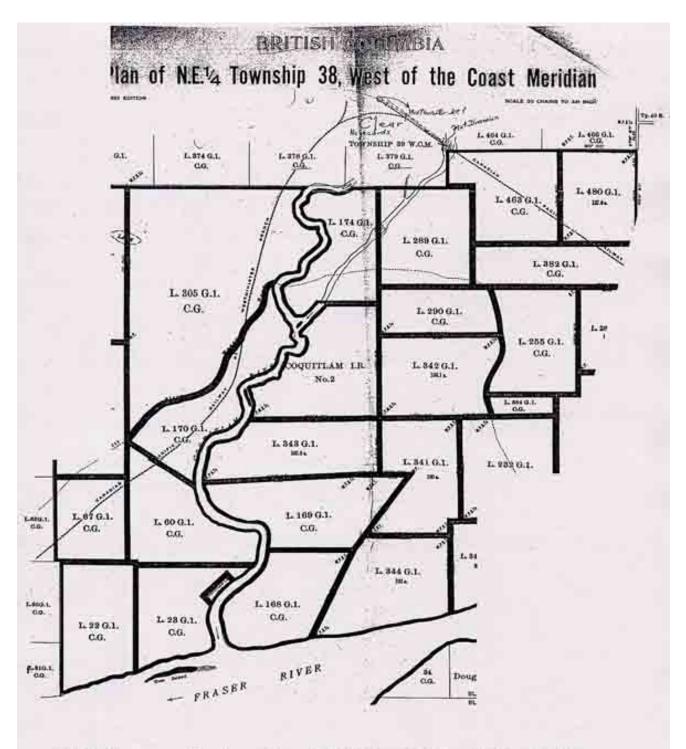
<sup>&</sup>lt;sup>42</sup> "Sir. I have the honor by desire of the residents in this neighbourhood to represent the great inconvenience to which we are all put through the want of communication by and to New Westminster. Last year the bridge crossing the Coquitlam River was carried away by freshet, since which time the Pitt River road on which a large sum was expended in construction by the late Government has been rendered useless...." (Correspondence to the Chief Commissioner of Lands and Works, B.C., November 30, 1876. Provincial Archives, GR 868, Box 2, file 17)

<sup>&</sup>lt;sup>43</sup> November 23, 1914. National Archives, RG 89, vol.8, file 52-10-2 vol.1.





MAP 8. Federal government map showing location of Coquitlam River branches near the Canadian Pacific Railway bridge over the Coquitlam River. (Source: January, 1912 correspondence, National Archives, RG 89, vol.8, file 52-10-3, vol.1.)



MAP 9. Department of Interior map, Plan of N.E. 1/4 Township, West of the Coast Meridian, dated June 21, 1912, showing surveyed lands, Kwikwetlem Reserve #2, and portions of the former Coquitlam River fork below the Canadian Pacific Railway bridge. (Source National Archives, RG 89, vol. 20, file 7300/2-9 (1).)

After reviewing the solicitors' letter, J.B. Challies, Superintendent of the Water Power Branch in Ottawa, provided the following response for W.W. Cory, Deputy Minister of the Interior:

"The Coquitlam dam at the present time affords a means of controlling a very considerable portion of this river's flowage, and with this dam in full operation, I am at a loss to understand why there should be any serious flood conditions, unless there is a very important tributary below the dam." <sup>44</sup>

In turn, the Deputy Minister of the Interior wrote the solicitors for Port Coquitlam:

"The only interest that the Department of the Interior could have in this matter would be in so far as any remedial measures might involve control works on Dominion land in the upper watershed of this river. As the Coquitlam dam is in these upper waters and controls a very large portion of the river's drainage basin, it is difficult to understand why there should be any serious flood conditions now, as that dam is in full operation. <sup>45</sup>

In order that this Department may be advised fully on this matter, I am asking the Chief Engineer of the British Columbia Hydrographic Survey of this Department ... to look after the situation with your city engineer, and submit a report to me.

As the question of navigation would appear to be affected, I am referring a copy of your communication to the Department of Public Works for such action as they may consider necessary." <sup>46</sup>

On December 11, 1914, J.B. Challies instructed R.G. Swan, Chief Engineer of the B.C. Hydrographic Survey in Vancouver, to conduct an investigation and provide a full report on the matter:

"A report on the conditions should be forwarded to this Branch setting forth the causes of the conditions which are reported to exist at Port Coquitlam and what measures might be taken by this Department for the improvement of the same. It might be pointed out that the only remedies in which this Department would be interested would be the control of the waters in the upper reaches where Dominion lands are affected." 47

<sup>&</sup>lt;sup>44</sup> December 4, 1914. National Archives, RG 89, vol.8, file 52-10-2 vol.1.

<sup>&</sup>lt;sup>45</sup> According to findings of the New Westminster Water Committee in 1913, which was investigating sources of turbidity in the Coquitlam Reservoir with respect to the City's water quality, members reported on the erratic behaviour of the stream runoff into the reservoir from extreme rainfall events during the final construction period of the second enlarged dam: "So that you may understand the conditions, we wish to point out that the Lake, which is about 8 miles long by about 3/4 a mile wide, has been known to rise 12 feet in 24 hours, and the maximum rainfall equals 14 inches in 14 consecutive hours." (Report by J.S. Bryson, Chairman of the Water Committee, and J.W.B. Blackman, City Engineer, March 20, 1913. National Archives, RG 89, Vol.8, file 52-10-5, vol.2)

<sup>&</sup>lt;sup>46</sup> December 4, 1914. National Archives, RG 89, vol.8, file 52-10-2 vol.1.

<sup>&</sup>lt;sup>47</sup> Source: ibid

Swan provided Challies with a six page report on May 18, 1915.

"I may say that I have looked over the records in the Vancouver Power Company's offices and they show that at no time since the completion of the dam have the gates to the diversion tunnel been open. Consequently the discharge of the river at Port Coquitlam is due to the water overflowing the spillway at Coquitlam dam and the discharge of any streams entering the river below the dam. I fail to see, however, that once the storage basin of Coquitlam Lake is full, and the dam is in operation, flood conditions should be done away with.

The Tunnel connecting Lake Coquitlam and Lake Buntzen will of course carry some of the Run-off from Lake Coquitlam, but even with the gates wide open the capacity of the tunnel is little more than 1200 cubic feet per second. This amount is a very small percentage of the total run-off of the Lake. Records for November 1909 show that the discharge of the River was 13,000 cubic feet per second, and it is quite possible that this amount will be exceeded in the future.

Gold Creek <sup>48</sup> is the only stream of any importance which flows into Coquitlam River below the dam, and run-off records for 1912 and 1913 give the maximum discharge as 530 cubic feet per second. In fact the drainage into the River below the dam is so small a part of the total discharge of Coquitlam River it need hardly be taken into consideration.

In looking over the situation carefully I think I may safely say that the only solution of the difficulty is in construction works along the lower reaches of the river which will confine the course of the River.

While your letter states that this Department can only be interested in this matter in so far as any remedial measures might involve control works on Dominion Lands, I am submitting proposed schemes for the diversion and the improving of the Channel of Coquitlam River...." <sup>49</sup>

Challies then provided an update for the Deputy Minister of the Interior, wherein he provided a very loose interpretation of Swan's assessment regarding the Coquitlam dam:

"Mr. Swan has recently submitted a very complete and satisfactory report in the whole matter in which he suggests two remedial schemes, one having a total net cost of about \$60,000 and the other about \$75,000. Mr. Swan's report also points out that the Coquitlam dam project cannot be considered to be a contributory factor in the depredation of this river. For this reason I do not think the Department of the Interior has any direct responsibility in having any necessary remedial measures carried out. It would appear to be a matter entirely for the attention of the Department of Public Works." (Memorandum, June 9, 1915. Source: ibid.)

It wasn't until 1922, however, that alterations to the Coquitlam River branch system began. On September 18, 1922, R.G. Swan provided Superintendent Challies with a newspaper clipping from the Vancouver Province, entitled *New Channel for Coquitlam River - Work of Dredging Will Be Started Shortly, Premier Announces*. The article cited part of the plans for cutting off the eastern river channel below the Canadian Pacific Railway bridge, and forming one river channel.

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<sup>&</sup>lt;sup>48</sup> Renamed as Or Creek.

<sup>&</sup>lt;sup>49</sup> Report No. 181. National Archives, RG 89, vol. 546, file 181.

"Arrangements are being completed by the Provincial Government engineers for the dredging of a new channel for the waters of the Coquitlam River, announced Premier Oliver this morning following a long conference at which Hon. J.H. King, minister of public works, was present.

The engineers considered it cheaper to dig a new channel than to remove the great quantity of driftwood which blocks the old channel. Should another period of high water come, it is feared the entire country would suffer a repetition of last flood conditions, and the Colony Farm would be endangered as well. The work will cost approximately \$25,000, 10 per cent to be borne by the City of Port Coquitlam, 40 per cent by the Federal Government and 50 per cent by the Provincial. The work will be commenced shortly." <sup>50</sup>

One of the flood events, as referred to in the newspaper article, occurred in October, 1921. The Canadian Robert Dollar Company's Logging Railway bridge, across the Coquitlam River, situated about 4 miles north of the town of Coquitlam at that time, was washed away. According to an account by a professional engineer:

"... the river at this point changed its course and cut into the south bank, increasing the channel width to more than twice what it was before." (Humphry, of Noel Humphrys & Company, B.C. Land Surveyors, Civil Engineers, Timber Estimates, to the Chief Engineer, Department of Railways, Victoria, B.C., December 12, 1921. Victoria Archives, GR 817, vol.6, file 33.)

## B. The Canadian Pacific Railway Company's water licence from the Coquitlam River

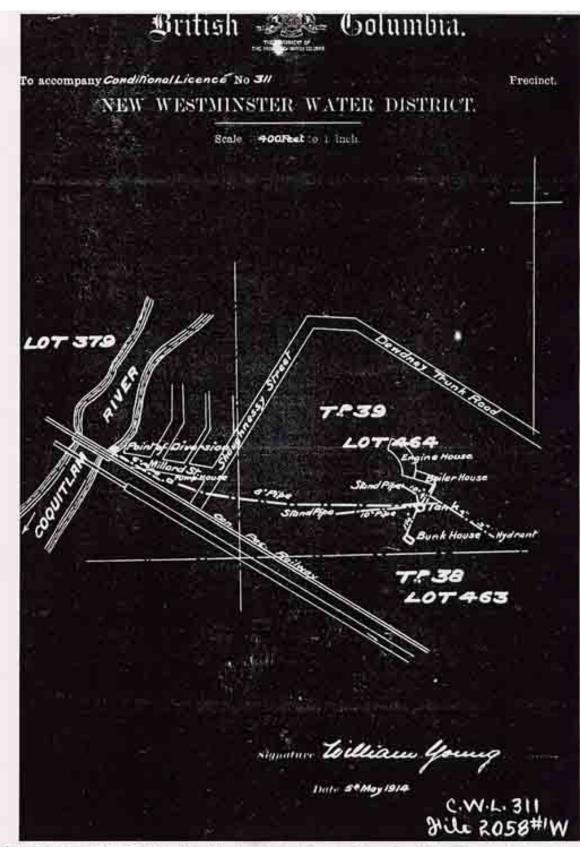
The Canadian Pacific Railway Company filed an application for a conditional water licence (No. 311) from the Coquitlam River, which became effective on September 26, 1912. As such, the Water Comptroller of British Columbia approved "the diversion of four hundred thousand gallons of water per day", "the carriage of the said water from the said point of diversion" "where the Railway crosses the said Coquitlam River". <sup>51</sup> The use of the water was described as "miscellaneous", that is for "general railroad purposes". For location of the water licence diversion see Map 9 and blue print diagram D-1.

It is not known how long the C.P.R. had this licence nor how often it used the quota of 400,000 gallons per day. Certainly, this amount of water diversion would be of additional consequence to salmon and fresh water fish habitat during seasonal low flow periods and the controlled removal of water by the Vancouver Power Company.

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<sup>&</sup>lt;sup>50</sup> Vancouver Province newspaper, September 15, 1922.

<sup>&</sup>lt;sup>51</sup> Permit No. 335, Industrial Purposes. National Archives, RG 89, vol.20, file 7300/2-9.



BLUE PRINT DIAGRAM D-1. Showing water diversion from Coquitlam River to the Canadian Pacific Railway water storage facilities. (Source: National Archives, RG 89, vol.20, file 7300/2-9.)