

THE *BIG* EDDY

Water District	Watershed Number*	Source	User	Reserve Area Requested**
Revelstoke	1a	Clachnacudainn Creek		15.3
"	1b	Greely Creek		20.3
"	1c	Hamilton Creek	City of Revelstoke	5.6
"	1d	Bridge Creek		1.7
"	1e	Napoleon Creek		1.2
"	2	Dolan Creek	Big Eddy W.W.D.***	1.7



A History of the Big Eddy Waterworks District and its Long-Standing Battles to Protect the Dolan Creek Watershed Reserve



By Will Koop, September 30, 2013
 B.C. Tap Water Alliance (<http://www.bctwa.org>)

5. THE MINISTRY OF HEALTH AND BC HYDRO

*The results of the investigations carried out to date show that Dolan Creek represents the best and most economical source of water for the Big Eddy Water Works District.*¹⁵⁸

Perhaps one of the last, critical, and influential cases regarding the previous authority and mandate of the Ministry of Health as the provincial agency essentially in charge over the protection and regulation of public drinking watershed sources in BC – just before the Social Credit Party administration was elected and before the Ministry of Health’s powers were eroded – began with a letter from the Vernon Regional Health office in September 1975. That letter was ultimately responsible for two eventualities:

1. Compensation of over one million dollars (\$1,113,000) to the Big Eddy Waterworks District from the B.C. Hydro & Power Authority for an accompanying and alternate source of water, and other related expenditures, primarily related to clearcut logging operations from BC Hydro’s transmission line right-of-ways in the Dolan Creek Watershed Reserve, which degraded its water quality;¹⁵⁹
2. More compensation funding from BC Hydro resulting from the August 1983 Environmental Appeal Board’s decision, and its ruling against future public access and development in the Dolan watershed, a ruling that top administrators in the Ministries of Forests and Environment strongly objected to.

It is undeniable that the initial support from the Ministry of Health’s Environmental Engineering Division would ultimately be responsible as ministerial endorsed leverage for the Big Eddy Trustees’ successful encounters with B.C. Hydro, the Ministry of Environment, and the Ministry of Forests (MoF), a prolonged debate that continued for a period of eight consecutive years, from 1976 to 1983.

The emblematic motto commonly provided at the bottom first page of every former BC Department of Health’s Environmental Health Engineering Division correspondence letterhead stated:

¹⁵⁸ *Comparison of Alternative Sources, Project 1221, Big Eddy Water Supply*, Project Memorandum 1221/7, Alternative Water Sources for Big Eddy, January 31, 1980.

¹⁵⁹ 1978: \$93,000; 1979: \$40,000; 1980: \$572,000; 1981: \$333,000; 1982: \$75,000 (Source: *Impacts of the Revelstoke Canyon Dam Project on Local Government Services and Finances*, Volume 3, *Impacts and Compensation*, Sussex Consultants, December 1985, page 3-25). According to the Big Eddy August 31, 1981 two-page submission to the Revelstoke Community Impact Committee, annual costs by the Big Eddy Waterworks District for the Dolan Creek watershed amounted to \$200 per year prior to B.C. Hydro’s involvement. “*Since the Big Eddy Water District’s beginning, successive Board members have worked very hard and put in many hundreds of hours their free time as well as booking off work without pay to give this community a good supply of excellent water at a low rate as possible. Before British Columbia Hydro & Power Authority became involved with the power line through Dolan Creek water shed, the successive Trustees achieved their goal.*” In a letter of April 26, 1982 to the Director of Water Management, P.M. Brady, “*We do not believe the people in Big Eddy Water District should be required to subsidize the building of the Revelstoke Dam by being required to pay a higher water fee.*”

HEALTH is a state of COMPLETE physical, mental and social well-being and not merely the ABSENCE of disease or infirmity.

5.1. The Letter and Questionnaire to Big Eddy and B.C.'s Water Users

In early January 1973, the Big Eddy Waterworks District received a letter and an accompanying questionnaire from Ben Marr, Chairman of a recently formed provincial review committee, called the *Task Force on the Multiple Use of Watersheds of Community Water Supplies*.¹⁶⁰ According to the Task Force meeting minutes of October 16, 1972, the letter and questionnaire was to be bulk-delivered provincially to 325 water purveyors, i.e., Improvement Districts, Irrigation Districts, Municipalities, Towns, Villages, Water User Communities, Regulated Water Utilities, etc.:

Your Provincial Government has established a Task Force under the Environmental and Land Use Technical Committee to investigate the problem of obtaining wholesome water supply from streams whose watersheds are subject to multiple use. Is the land that contributes runoff to your community water supply used for any other purpose, such as logging, mining or recreation? If it is we would like your assistance in identifying the problems that such multiple use of the watershed creates for your water supply. It is hoped that policies and procedures can be developed that will allow reasonable use of other resources in water supply watersheds while protecting the ability of the watershed to furnish high quality water for human use.

It would be of great assistance to the Task Force in reviewing this problem throughout the Province if you would complete the enclosed questionnaire and return it by January 31st, 1973.

*The Task Force, which will use the information you and others supply through the questionnaire, is composed of members of the following Provincial Government, departments: Water Resources, Lands and Forest Services, and the Departments of Agriculture, Health, Municipal Affairs, Mines, and Recreation and Conservation. Your kind co-operation will be greatly appreciated.*¹⁶¹

There was no information recovered from both Big Eddy Waterworks District and government records concerning Big Eddy's response. If written, the Trustees would likely have provided a letter of strong concern to the Task Force against logging activities in the Dolan Creek Watershed Reserve, recapping their previous requests and tribulations to protect it, as was the case with the majority of other water purveyors. After all, it was because of the widespread acrimonious complaints by water users and purveyors in the 1960s and early 1970s that the Social Credit Party government was forced, reluctantly, to initiate the Task Force review process in February 1972.

Unfortunately, the community watersheds review process was being steered politically by the Deputy Minister of Forests, J.S. Stokes, the assigned chairman of the Environment and Land Use Technical Committee, the Committee which functioned under the authority of the 1970 the Environment and Land Use Act. Stokes was quietly and untowardly interested in opening and

¹⁶⁰ Marr, who became Chief Engineer with the Water Investigations Branch under the Department of Lands, Forests and Water Resources in the mid-1960s, later became Deputy Minister of Environment (1976-1987), Deputy Minister of Forests (1987-1990), and finally served the dual role as Commissioner of the Greater Vancouver Water District and Regional Manager of the Greater Vancouver Regional District (1990-1996).

¹⁶¹ Letter of December 29, 1972.

furthering resource access in the restricted community watersheds, framing the arguments under the resource management umbrella of “Multiple Use,” later coined in the 1980s as “Integrated Resource Management.” The Forest Service incorporated the controversial term “Multiple Use” into the title of the Task Force to help manipulate and force its own concepts on the provincial trusting public, despite the fact that government’s legislation and policy stipulated the protection of these sources, anchored historically through the widespread establishment of Watershed Reserves. As predicted, the title of the Task Force not only helped the Forest Service to gradually trick BC’s water users into thinking and believing that Timber Sales and other resource permitting and tenure licensing was standard practice in Watershed Reserves, it also helped trick and reorient government administrators and staff – everyone would have to tow the line.

5.2. Letters from the Ministry of Health

In a September 18, 1975 letter, Evelyn Pigeon, the Secretary of the Big Eddy Waterworks District, informed Wayne McGrath, the Vernon District Regional Engineer with the former Department of Health’s Environmental Engineering Division, about Big Eddy’s concerns regarding an application by BC Hydro to clear two wide sections of forest for transmission right-of-ways arcing across and within the lower and upper Dolan Watershed Reserve:

Our Water District has a few problems we’d like to discuss with you, if you could meet with the Trustees at your earliest convenience. Firstly, we’re very concerned over B.C. Hydro’s proposed Ashton Creek - Revelstoke KV Transmission Line Right of Way over Dolan Creek Watershed. We would like to see this line go in north of [the] Watershed, thus eliminating any crossings.

The Big Eddy Waterworks District’s concerns actually began a year and a half earlier after learning about the proposed transmission line routes from the proposed Revelstoke Dam on the Columbia River to be constructed some 10 kilometres north of the City of Revelstoke. The Trustees promptly notified the government in a January 3, 1974 letter to the Water Rights Branch. Not satisfied with the eventual responses, the Big Eddy Trustees later contacted the Ministry of Health.

Thereafter, Evelyn Pigeon received a gloomy response letter from Health engineer McGrath, dated September 30, 1975:

Regarding the proposed B.C. Hydro transmission line, the Health Department would be deeply concerned if such a line were situated within the watershed of Dolan Creek. For all practical purposes, this would eliminate Dolan Creek as a source of domestic water. If the proposed line cannot be re-located, it would appear that consideration should be given to utilizing Wells Creek as a source of water supply for the Big Eddy Waterworks District. It should also be pointed out that, although the most recent bacteriological analyses have been acceptable, consideration should be given to protection of the Dolan Creek reservoir e.g. warning signs, fences. If future bacteriological sampling indicates contamination of the water supply, the Health Department would be forced to require continuous disinfection (e.g. chlorination) of the system.

As with the majority of other early 20th Century domestic watershed source distribution operations in BC, the Big Eddy water purveyors never disinfected or treated their “primary” water supply. That’s because of the generally excellent quality of water found in the uninhabited, unroaded, and

yet “unmanaged” forested mountain stream sources (referred to in a 1952 BC Natural Resources conference document as the “maintenance of full virgin forest canopy”), a natural quality that British Columbians deeply treasured and valued.

There were three important considerations raised by engineer McGrath in his response to Big Eddy:

1. Dolan Creek as an untreated source of drinking water was, and had been, “*acceptable*”;
2. Logging and human encroachment were incompatible for drinking water quality; and
3. If logging and human encroachment would occur, chlorination treatment of the Dolan would commence.

The admission from the Ministry of Health about Dolan’s “*acceptable*” state was significant, particularly because of later strangely contrary and retracted remarks made by North Okanagan Medical Health Officer and Vernon Director of Public Health Programs M.R. Smart in 1983, remarks related to undocumented political pressures to do so (see below). In a June 21, 1979 letter, four years before Smart’s contrary controversial statement about Dolan Creek, he stated to the Big Eddy Waterworks District, “*the Dolan Creek water supply is considered acceptable as a Drinking Water.*” His conclusion was based on years of ample evidence, the annual water testing samples taken from Dolan Creek.

In a July 7, 1975 memo from the Minister of Health, Dennis Cocke, addressing another similar circumstance regarding concerns about the Wynndel Irrigation District’s water source from the Duck Creek Watershed Reserve near the Town of Creston, he makes a simple and profound statement:

Preservation of water quality is not only an important component of the Public Health programme, the loss of pure water supply can also cause considerable financial hardship to a small community in the form of costs for treatment or provision of an alternate source.

The acknowledgement of these matters by senior government administrators was well understood at the time, as reflected in the following November 17, 1972 letter from Water Resources Department Deputy Minister Raudsepp to his boss Bob Williams, the Minister of Lands, Forests and Water Resources:

It is expected that even a most carefully undertaken logging operation or any other economic activity in the watershed will cause some temporary disturbance. Many small community waterworks in British Columbia are diverting water from small mountain streams without any treatment of the raw water. The diversion works are usually simple and cheap.... The Community is, therefore, very sensitive towards any economic activity in the watershed. They would like to control the whole watershed in order not to be forced into treatment of the raw water.

On May 6, 1976, the Big Eddy Waterworks District informed Wayne McGrath that they had not reached an agreement at their “*last meeting with B.C. Hydro on April 28th*”:

but they agreed to hold off clearing in the watershed till we had an on-site inspection with them as to where the actual line will be. It was disclosed at the meeting that this line would actually be 3 main lines with as much as 500 to 600 ft. [feet] wide of clearing by the time it’s finished.

The concerns being raised about the future impacts to the Dolan Creek Watershed Reserve led to consultations between the Regional Ministry of Health Vernon office and the Ministry's headquarters in Victoria. This eventually resulted in the Deputy Minister of Community Health, G.R.P. Elliot, dispatching a letter on June 30, 1976, to the Manager of B.C. Hydro's System Engineering Division, H.J. Goldie, regarding the:

MAINTENANCE OF BIG EDDY WATERWORKS DISTRICT WATERSHED

The Health Department is very concerned with the prospect of construction of the proposed transmission line and clearing of right-of-way across the watershed of the Big Eddy Waterworks District. As you are probably aware, the supply at Dolan Creek dam is already marginal and incapable of providing for new customers, and any disruption of the watershed by access roads, logging or clearing could have a serious effect. In addition, there is concern that clearing and construction would provide ready public access to an unprotected watershed area and necessitate installation of treatment and disinfection equipment. I request you, therefore, to give direction that no construction of access roads or clearing will take place in the drainage area supply Dolan Creek until provision has been made for an adequate supply of water to the Big Eddy Waterworks District from another source acceptable to our Department, and I trust that B.C. Hydro will give the District every assistance in this regard. May I also draw the attention of your construction division to the requirements under Section 21 of the Health Act for approval of the design of the water system for the proposed work camp.

5.3. BC Hydro Ignores Internal Orders to Stay Out of Community Watersheds

With numerous provincial hydroelectric development projects underway in the 1960s and 1970s, there was a proliferation of applications by the BC Hydro & Power Authority with the Ministry of Lands for associated transmission line right-of-way tenure and clearing through both Crown and private lands.

Typically, clearing of forested lands for transmission line purposes not only involves the removal of wide swaths of forested terrain, but also includes the building of rough and sometimes very steep access roads, activities that cause initial and sometimes continuous physical damage to and erosion of soils. In addition, B.C. Hydro also regularly practiced attendant toxic herbicide treatment of vegetation on its right-of-ways, often despite community resistance and criticism, the subject of considerable public debate in BC throughout the 1960s, 1970s, 1980s and 1990s. Because these transmission line lands are kept in a denuded to semi-denuded state, regularly brushed and/or herbicided to keep trees from growing too tall or growing at all, they degrade and contaminate water quality and soils.

Following the publication of Rachel Carson's *Silent Spring* in late 1963, community concerns and activism concerning pesticides and herbicides sprouted across British Columbia, eventually invoking the 1973 *Royal Commission of Inquiry into the Use of Pesticides and Herbicides in the Province of British Columbia*. The Royal Commission final report, Volume One, identified on page 210 that B.C. Hydro was regularly applying the toxic herbicide Agent Orange, 2, 4-D, and 2,4, 5-T by helicopter and ground spraying on its electrical transmission right-of-ways. It stated on page 211 in its May 1975 final report that "*the potential for human effects of herbicide spraying on rights-of-way is extremely small.*"

Chapter one of this report dealt with the Commission's findings on the general dangers of herbicides and humans. That Chapter indicated that there is only a remote possibility of any normal use of herbicides having a measurable effect on humans. When this conclusion is combined with the fact that most sprayed rights-of-way are relatively inaccessible to humans (with the exception of highway right-of-way), the possibility of human effects is very remote indeed. It appears prudent, however, to minimize the possibility of happenings such as the inadvertent picking of berries on rights-of-way immediately following a spray application.

The Inquiry report stated that *“the total proposed usage of herbicides by B.C. Hydro and Power Authority on their electrical transmission system during 1973 was 30,000 pounds of active ingredient, the greatest part of which was 2, 4-D and 2, 4, 5-T.”* It also stated that the B.C. Department of Highways used *“37,000 pounds of active ingredients, which is about 80% more than the total use of herbicides by the Forest products companies in the coastal forest regions,”* and that *“usage during 1973 showed that 170,000 pounds of active ingredients were utilized by the three major railroads in British Columbia.”*

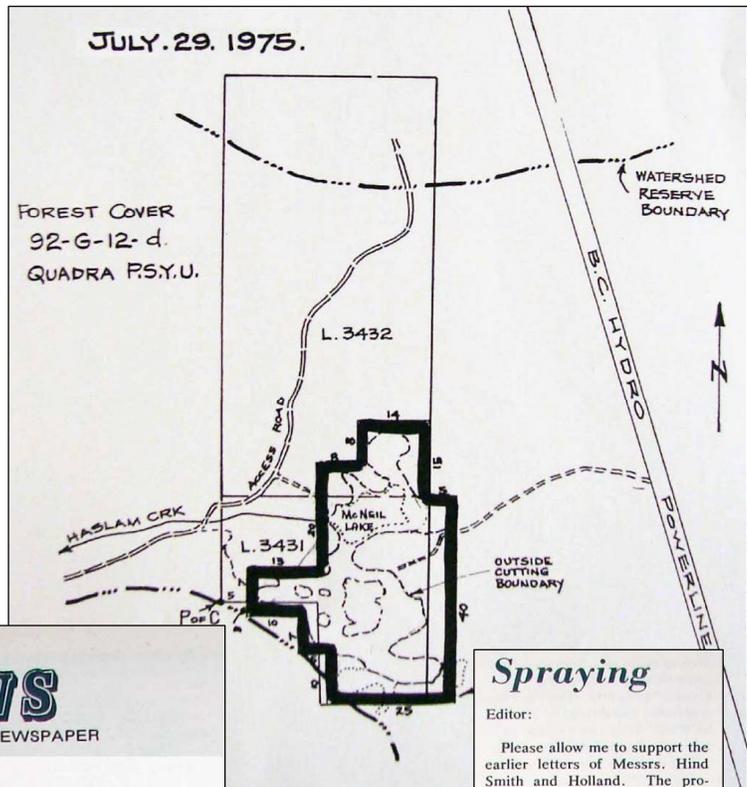
At the time of the BC Commission Hearings – during the end phase of the Vietnam War – Vietnam was being bombarded with Agent Orange. At the Hearings, chemical industry interest representatives appeared, along with B.C. Hydro officials. From the standpoint or position of the Commission, the knowledge about the spectrum of toxicity impacts of Agent Orange on the planet's life forms and elements was apparently crude (so they stated), and the concerns were played down by government, private industry and by the Commission itself.

Eight years later at the *International Symposium on Herbicides and Defoliants in War, The Long-Term Effects on Man and Nature*, held in Ho Chi Minh City in January 1983, over *“seventy ecological and physiological (medical) scientists from some 20 countries, both East and West”* gathered to present their findings in numerous thematic workshops on the application of the *“anti-environmental program”* use of Agent Orange, Agent White, and Agent Blue. Stated on the first page of the symposium proceedings:

It is the Agent Orange that has caused the greatest level of medical concern because of its dioxin contaminant. Dioxin is an extraordinarily toxic animal poison, lethal in minute doses. Moreover, when administered to experimental animals in sublethal quantities it can be teratogenic (result in birth defects), mutagenic (cause genetic damage), and carcinogenic (instigate cancers).

After years of complaints, in 1984 the BC Sunshine Coast community of Pender Harbour complained on June 1st to the government that BC Hydro, a Crown (a provincially-owned) Corporation, had been regularly applying herbicides on its right-of-way located in the South Pender Harbour Waterworks District's source of drinking water, the McNeill Lake Watershed Reserve (a Reserve over two watersheds, Haslam and Silversands Creeks). It is not known how often BC Hydro had been spraying the area ever since the transmission corridor had been carved sometime in the late 1950s. The Watershed Map Reserve had been created in 1973, but the District had been using water from the Haslam watershed for domestic purposes well before 1973. The Waterworks District noted that both BC Hydro and the Ministry of Forests failed to provide the water purveyor with advanced written notice of spraying and logging proposals in its Watershed Reserve:

The only advice required seems to be a legal notice published in a local paper, the descriptions of areas involved are usually less than specific, this means we have to search papers regularly for possible problems. The Department of Health makes regular coliform tests of our water but it is not obligated to test for residual herbicide sprays and in any case it would be detected after the fact, not very reassuring to the consumers. We need prior advice.



2. Coast News, March 29, 1977.

COAST NEWS

A CO-OPERATIVELY AND LOCALLY OWNED NEWSPAPER

Herbicides

In response to some expressed concern by residents of this area about the herbicide program utilized by B. C. Hydro on the power line which runs above all the communities of the Sunshine Coast, last week the Coast News undertook some investigation of the matter. It took some phone calls to locate the appropriate department with stops at offices with Orwellian names such as Vegetation Management Supervisor but eventually the right department was discovered. It is a department of B. C. Hydro which is called the Department of Environmental Services and a Mr. Cy White is the supervisor.

Mr. White turned out to be most patient and helpful. He explained that there were three basic materials that were used by Hydro in their program of vegetation control. They are Tordon 101 which is a mixture of Picloram and 2,4-D and is the basic herbicide for both helicopter and ground spraying; 2,4-D by itself which is used as a ground foliant spray; the third was 2,4-D in combination with 2,4,5-T which goes under the name of Brushkiller and which is used to spray and kill roots of growth which already had been cut down to a height of six inches. Queried about the alleged use of pellets Mr. White said that this was for spot application only and involved a half ounce of Tordon 10K which was applied to the base of a specific tree.

On the subject of the alleged birth defects Mr. White said that this had been caused in Vietnam by an "impurity" in Tordon 101 in the form of Tetra Dioxan and that no such effects could be caused in the amount of spraying done by Hydro.

White listed the agencies of the various government which Hydro had to satisfy before the use of herbicides. They included an Inter-Ministerial Pesticide Committee comprised of representatives

of Departments of Agriculture and the Environment, the B. C. Forest Service, the Federal Environment Protection Service, the Department of Provincial Health and the Department of Recreation and Conservation. B. C. Hydro submits its plans to this committee giving details of the strength of the herbicide to be used and a map of the area to be sprayed. Each agency involved had its buffer zones or so-called set-backs.

According to Environmental Services Supervisor White, the chance of the herbicide washing downhill from the power line into salmon streams or drinking water was virtually negligible since the material was "locked into" the soil or ionized with it so that it didn't move around. He also said that accumulations of the material could not be expected since it tended to break down.

White pointed out that B. C. Hydro uses only about 10% of the herbicide used in this province. Other users are farmers, the forestry, and the railways.

When asked about the suggestion that the ground could be hand-cleared he said this was a provincial government's decision and could not be effected by Hydro without political action. He further pointed out that much of the spraying program took place over the roughest of terrains and Workers' Compensation had confirmed that over such terrain people employed with chain saws could expect to have a high accident rate with consequent days lost from work.

White was reasonable itself during the discussion though at one point he did admit that there was always an element of "by guess and by God" in programs of this type. It is obviously an area to keep one's eye on and to attempt to find out as much as possible about the program as it applies to the Sunshine Coast.

Spraying

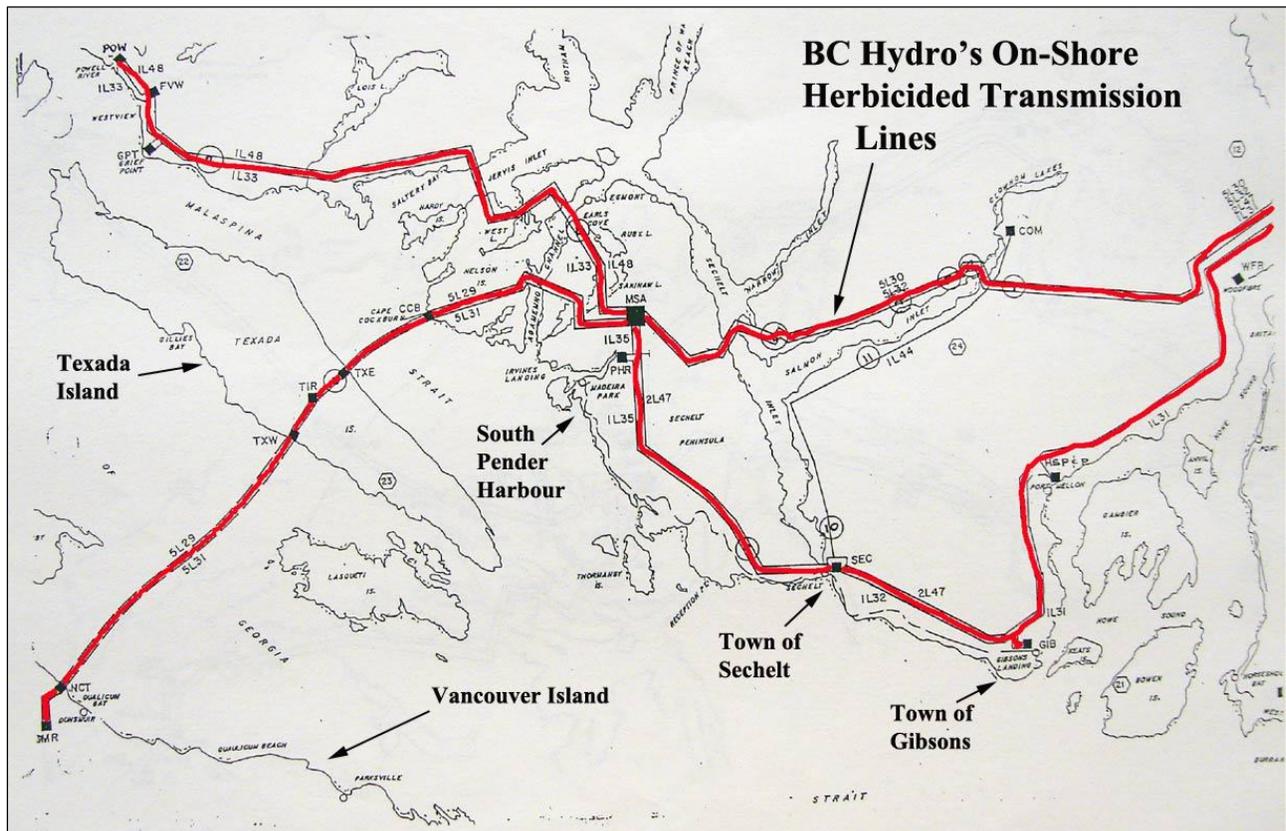
Editor:

Please allow me to support the earlier letters of Messrs. Hind Smith and Holland. The proposed spraying of the chemical 'Tordon 101' by B. C. Hydro should be actively opposed on the basis that:

1. The major substance of Tordon 101 is the chemical 2, 4-D produced by Dow Chemicals. It had been used in chemical warfare in Vietnam, serving not only to defoliate the land, but to poison its inhabitants.
2. We have abundant documents by scientists demonstrating the harmful effects on tested animals. Among these are: genetic mutations, sexual reversal, dwarfing, child-mortality, abortion, birth defects, etc.
3. Throughout British Columbia, birth-defects similar to those found in Vietnam have occurred in babies of residents near power-lines where the chemical had been sprayed.
4. That fish and wildlife crossing the area will suffer significant reductions and health damage.
5. That many Sunshine Coast residents rely on drinking water from creeks which will inevitably be contaminated by the chemical.
6. That even trace elements of the chemical will produce various forms of cancer. The extent of this damage can be fully appreciated only after a decade or more, since cancer requires such a long time to become evident.
7. That a number of North American courts have effectively outlawed the spraying and use of this chemical on the evidence of its far-ranging dangers and questionable benefits.
8. That there are better alternatives. It would be more reasonable and in a broader sense more economical to cut undesired plants and trees manually and with power-saws. This would also be more labour-intensive and benefit the economy and employment situation of our region.

K. Peter Hauke
Roberts Creek

After decades of toxic herbiciding Crown land transmission Right-of-Ways in the Province of British Columbia, and after years of public protests, entreaties, court actions since the 1970s, BC Hydro finally succumbed to pressures by the Sunshine Coast Regional District to initiate public involvement measures on its controversial application of herbicides.



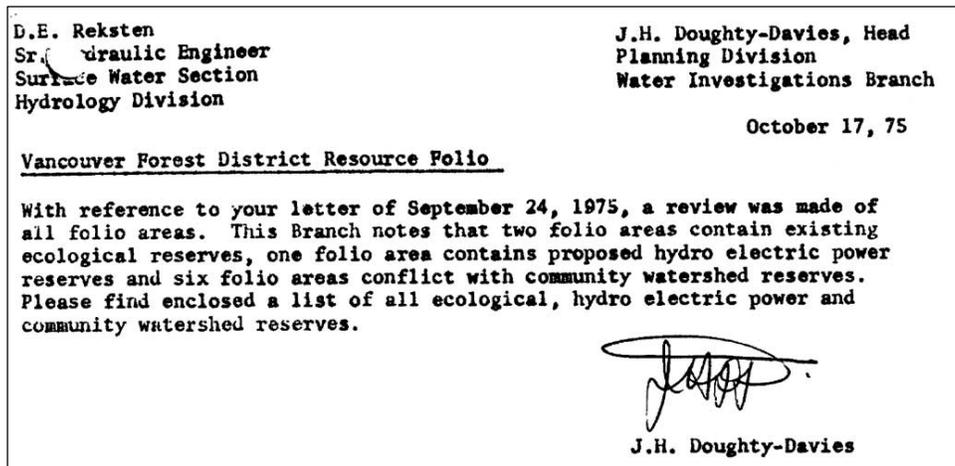
According to BC Hydro's May 1994 third draft of its *Sunshine Coast Vegetation Plan*, in December of 1991 Hydro invited "14 Sunshine Coast interest groups" to form a "Sunshine Coast Vegetation Management Working Group" to assist Hydro "in the development of a long term Vegetation Management Plan for the Sunshine Coast transmission line rights-of-way." Regional public representatives included the Sunshine Coast Regional District, District of Sechelt, Town of Gibsons, South Pender Harbour Water Works District, Pender Harbour Residents Group, the Coastal Association to Protect the Environment, the Sunshine Coast Environmental Protection Project, and the Sechelt Rod and Gun Club. Government representatives included the Coast-Garibaldi Health Unit, the Ministry of Forests, the BC Fish and Wildlife Branch, and the federal Department of Fisheries and Oceans. According to the third draft, Hydro's public involvement process was "new" to BC Hydro, the first time it ever sought to do so since it first began using herbicides over some four decades previous:

Because of some of the potentially negative environmental and social impacts of vegetation control, the residents of the Sunshine Coast area of British Columbia expressed a desire to be involved in and contribute to BC Hydro's vegetation management planning process. The Sunshine Coast Vegetation Management Working Group, comprised of representatives from environmental and special interest groups, government agencies, and BC Hydro, was formed in response to this request.

The draft document also stated that “*Building trust and understanding through integrity can avert conflicts that arise due to lack of communication. Although the Management Plan was developed specifically for use in the Sunshine Coast, it is hoped that it will serve as a model for other parts of the province.*”

The numerous proposals for and location of electrical transmission lines resulted in many resource use conflicts, particularly those related to community and domestic watersheds. In the 1970s, the community watersheds Task Force (1972-1980) and the government’s former Regional Resource Management Committees therefore addressed these issues and instructed BC Hydro to stay away from these sensitive and off-limits source lands in Hydro’s ambitions to develop the least expensive right-of-way transmission line routes.

For instance, in a December 1974 letter from the B.C. Water Investigations Branch to the Secretary of the Community Watersheds Task Force was a serious discussion of the hydroelectric transmission line issue, including a recommendation for BC Hydro to avoid smaller community watersheds altogether from transmission line right-of-way impacts.



I refer to the attached letter dated December 4, 1974 from Mr. D.K. Naumann to Mr. B.E. Marr regarding the transmission line - community watershed question. It should be noted that Mr. Tanner, Water Rights Branch, is representing the Water Resources Service in regards to a preliminary overview study by Ian Hayward and Associates Limited of the 500 KV transmission line proposed for the Nicola - South Okanagan - West Kootenay - Cranbrook area. A meeting regarding this route is planned for December 19, 1974 and I have verbally informed Mr. Tanner of the involvement of this Branch in the community watershed Task Force study. I have also supplied him with a map indicating community watersheds in this area of the Province and indicated our concerns of possible water quality degradation due to construction activities of the transmission lines and the possible effects of chemicals used for retardation of growth along the right-of-way after construction is completed.

The attached letter indicates that British Columbia Hydro is aware of the community watersheds serving Cranbrook. Apparently they were not aware of the watersheds serving several other communities along the potential corridors they are considering. Mr. Tanner will inform them of these land use modifiers at the December 19 meeting. Presumably, some effort will be made by British Columbia Hydro to avoid these watersheds wherever possible. With regard to the questions listed in Mr. D.K. Naumann’s letter, I have the following comments:

1. As outlined above, the presence of a transmission line right-of-way could adversely affect the water quality due to debris and silt entering the stream system during the construction

period. The maintenance of low vegetation after construction may have adverse quality if spraying with chemicals used for this purpose. Access roads, unless properly maintained, can be a future source of water quality problems.

2. The land in community watersheds is frequently Crown owned and it would be extremely difficult to restrict access into these areas along the transmission line routes by snowmobiles, all terrain vehicles, hikers, etc. Problems created by public access (litter, fire hazards, malicious damage, etc.) would be more severe in the smaller more sensitive, watershed areas. Consequently, a policy of avoiding these small (less than 10 square miles) watershed areas wherever possible should be considered by British Columbia Hydro.

3. I am not aware of specifications for the clearing, construction and maintenance of transmission lines in community watershed areas. Perhaps the guidelines for timber harvesting which have been developed by the Forest Service would be useful to British Columbia Hydro. However, these guidelines would have to be modified to take into account the special problems associated with transmission line clearing.

*I believe we should send to Mr. Naumann our 1 inch = 10 mile scale maps showing the community watersheds throughout the Province. In addition, it would be worthwhile to suggest a meeting of the Forest Service, British Columbia Hydro and a member of the Task Force to discuss the questions raised in Mr. Naumann's letter.*¹⁶²

Oddly, this recommendation to stay out of the “smaller” community watersheds was, for some unknown reason, ignored in BC Hydro’s controversial proposal for two transmission line right-of-ways through the Dolan Creek Watershed Reserve. Perhaps BC Hydro’s intentions to quietly ignore the rights of water purveyors occurred through the ideological and political assistance of the new administrative regime, the Social Credit Party, recently elected to government in mid-December, 1975.

In the summer of 1974, during the New Democratic Party administration, the Community Watersheds Task Force received a letter of concern from a Chilliwack City resident about a proposed transmission line through Dunville Creek, one of Chilliwack City’s three adjacent drinking watershed sources. The Task Force formally registered Dunville Creek, and its companion Elk and Nevin watersheds, as a Category One Watershed Map Reserve, a watershed that had been reserved before the Task Force re-reserved it in 1973.¹⁶³ After deliberating on the matter, the Chairman of the Task Force responded to the concerned resident whereby the Task Force would deny B.C. Hydro’s proposal for a transmission line through the Dunville community watershed:

As indicated to you in a letter dated July 11, 1974 from Mr. B.E. Marr, Deputy Minister, Water Resources Service, the quality of water available from small community watersheds in the Province of British Columbia is of prime importance to the communities served by these sources. Therefore, it is the policy of the Water Resources Service to recommend against the alienation of crown lands in small community watersheds such as the Dunville Creek

¹⁶² R.W. Nichols, Senior Hydraulic Engineer, Planning Section, Water Investigations Branch, to J.D. Watts, Planning and Surveys Division, Water Investigations Branch, December 17, 1974.

¹⁶³ Elk and Dunville Creeks were provided with Watershed Reserves in 1946 for the City of Chilliwack. Refer to the B.C. Tap Water Alliance website for presentation material and government correspondence on the Elk, Nevin and Dunville Creek Watershed Reserves: <http://www.bctwa.org/ElkHomePage.html>

watershed, which has a drainage area of only 2.2 square miles measured upstream of the intake works. We have reviewed the available information regarding your appeal and recommend that permission not be granted for the construction of the road and B.C. Hydro power line on crown land located within the Dunville Creek watershed.¹⁶⁴

Mr J.D. Watts, Chief
Planning and Surveys Division
Water Investigations Branch

R.W. Nichols
Senior Hydraulic Engineer
Planning Section

Transmission Lines and Community Watersheds

December 17, 74

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With regard to the questions listed in Mr. D.K. Naumann's letter, I have the following comments:

1. As outlined above, the presence of a transmission line right-of-way could adversely affect the water quality due to debris and silt entering the stream system during the construction period. The maintenance of low vegetation after construction may have adverse affects on water quality if spraying with chemicals is used for this purpose.

Access roads, unless properly maintained, can be a future source of water quality problems.

2. The land in community watersheds is frequently Crown owned and it would be extremely difficult to restrict access into these areas along the transmission line routes by snowmobiles, all terrain vehicles, hikers, etc. Problems created by public access (litter, fire hazards, malicious damage, etc.) would be more severe in the smaller, more sensitive, watershed areas. Consequently, a policy of avoiding these small (less than 10 square miles) watershed areas wherever possible should be considered by British Columbia Hydro.

¹⁶⁴ J.D. Watts, Chief, Planning and Surveys Division, to Viola Southgate, Chilliwack, B.C., November 21, 1975.

The Big Eddy Trustees were left unawares by government agencies and the Regional Resource Management Committee of the internal inter-ministerial instructions to BC Hydro. Given the fact that the 1.7 square mile Dolan Creek Watershed Reserve was twenty percent smaller in area than the Dunville Creek Watershed Reserve, and the fact that BC Hydro was formally notified of the Task Force's concerns to stay out of community watersheds, it is most peculiar that BC Hydro was allowed to continue to propose transmission line and construction access into the Dolan Creek Watershed Reserve. Had Big Eddy known about these internal instructions, dollars to donuts Hydro would never have been allowed to enter the Dolan Reserve.

At a September 8, 1975 Kootenay Regional Resource Management Committee meeting, members discussed the impacts of the proposed 230 K.V. transmission power line locations between the towns of Canal Flats to Golden. The issue was previously referred to in March and December 1974 correspondence between BC Hydro and the Resource Committee, and in a May 1975 research report. According to government files, "*none of the regional resource agencies were consulted in the preparation of the recommendations of that report*" that preferred a transmission route along the "west side". Discussions by the Committee were as follows:

This matter is of course part of a much broader problem of long term planning of energy and communication corridors. Wise land use indicates that there should be inter-authority communication with government agencies to ensure that common route corridors are designated wherever technically and economically feasible. Such a policy is particularly imperative where high value valley lands are involved in this instance.

(a) Water Resources Service

Many sections of the proposed routes could have a considerable impact on private, community or Crown authorized water rights. It is therefore imperative that constraints to all phases of construction are determined and agreed upon prior to implementation of the project. In particular, the Service is concerned with the impact on the watersheds of Goldie - Sunlight Creeks (mile 25 to mile 27.5) which supply domestic and irrigation water to the village of Invermere and the Westside Improvement District; Bruce - Wilmer Creeks (mile 51 to 51.5) which supply domestic and irrigation water to the Wilmer Waterworks District. (Please refer to the attached copy of the letter to your office from Mr. B. Marr dated August 27, 1975.)

There are also numerous water licences on the west side between mile 0 and mile 12. Although the Service concurs with other resource agencies in principle that route # 3 is preferred to route # 1, it is concerned with certain aspects of the proposed location of the former. The location of the line along the "toe" or on the lower slope could have an undesirable effect on the hydrology of most streams and could result in impairment of both quantity and quality of water to the numerous domestic and irrigation users on slopes below. As discussed in 7 above, it is strongly recommended that route # 5 be located as close to the existing Hydro Right-of-Way as feasible.

*In summary, it appears that B.C. Resources did not only ignore the impact construction and maintenance of the transmission line would have on hydrology, but did not recognize that any consumptive uses were being made of water resources along the route.*¹⁶⁵

¹⁶⁵ J.A.D. McDonald, Chairman, Kootenay Regional Resource Committee, to A. Crerar, Director, Environmental and Land Use Secretariat, Victoria, September 19, 1975.

5.4 The Revelstoke Hearings

In the Summer and Fall months of 1976, BC Water Comptroller Howard DeBeck convened public Water Licence Hearings in Revelstoke regarding the overall impacts associated with BC Hydro's proposed Revelstoke dam and transmission line right-of-ways. The Water Comptroller's Hearings were of a legal nature, where government and regional legal counsel representatives appeared, and where public stakeholders could cross-examine other stakeholders and Hearing panel members.¹⁶⁶

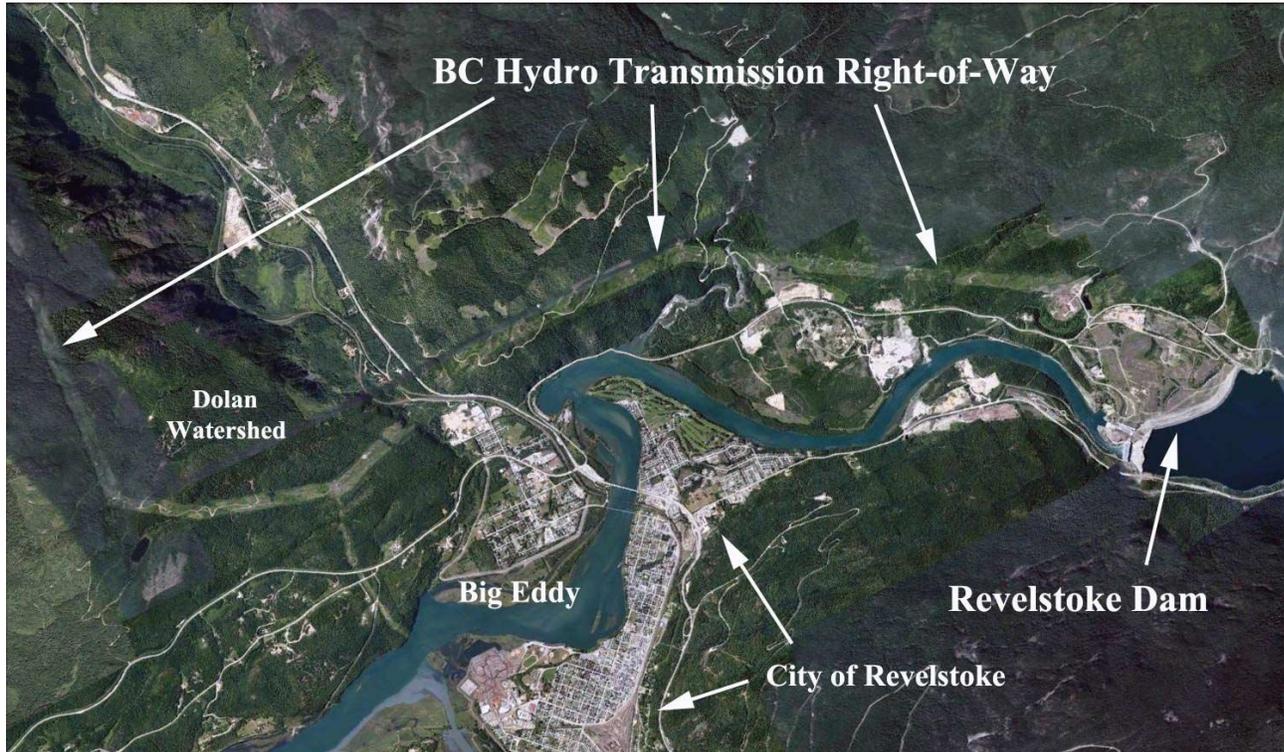


Image from Google Earth showing the present day BC Hydro transmission corridor south of the Revelstoke Dam and through the Dolan Creek Community Watershed Reserve.

The Big Eddy Waterworks District presented a two-page summary to the Water Comptroller on June 21, 1976, outlining its concerns:

The Big Eddy Water District is appearing as an objector to the granting of a water licence to British Columbia Hydro and Power Authority for the construction of a dam on the Columbia River up-stream from the City of Revelstoke, British Columbia, known as the Revelstoke 1880 Dam.

¹⁶⁶ “*In the Matter of the Water Act and in the Matter of an Application by the British Columbia Hydro and Power Authority for a Water Licence to Divert, Use and Store, Water out of the Columbia River at a Point About 3 Miles Upstream from Revelstoke, B.C., near the Lower End of the Little Dalles Canyon, and in the Matter of Certain Objections to the Said Application.*” Chairman, H.D. DeBeck. Members: Dr. R.J. Buchanan (Water Resources Dept.); D.A. Doyle, Esq.; D. Kettle, Esq.; H.M. Hunt, Esq.; R.J. O’Regan, Esq.; R.P.D. Round, Esq; Secretary W.R. Tuthill, Esq. The transcript volumes were provided by official reporters from the Law Courts in Victoria.

The Big Eddy Trustees' main concern related to the proposed transmission line crossing over and through the Dolan Creek Watershed Reserve which would “bring about a deterioration in quality and quantity of water for the residents of the Water District.” The Trustees requested the Water Comptroller to “deny a licence to British Columbia Hydro and Power Authority until certain conditions are met as outlined below”:

1. *British Columbia Hydro and Power Authority to supply alternate water to the District at or above required volume and quality, to compensate for deterioration of our Dolan shed, and of equal importance provide upgrading and extension of water systems made necessary by the anticipated influx of population in the Big Eddy.*
2. *British Columbia Hydro and Power Authority to set aside monies for future compensation on an unforeseen nature to the Big Eddy Water District, and area B of the Columbia Shuswap Regional District and the City of Revelstoke. This is to be administered by an independent person or persons chosen by or appointed by the Big Eddy Water District, Area B of the Columbia Shuswap Regional District, the City of Revelstoke and British Columbia Hydro and Power Authority or appointed by the Government of British Columbia.*
3. *British Columbia Hydro and Power Authority to make public all results from studies of the Downie slide and proposed dam area. If results of studies to date are inconclusive, to complete such studies as are necessary to assure complete safety of the proposed dam.*
4. *British Columbia Hydro and Power Authority to study health effects of people living in close proximity to high voltage power lines or acquire results of studies from others on this matter and make such studies public.*

5.5. The October 1976 Urban Systems Report

During the Hearings, the Big Eddy Waterworks District required a professional evaluation and Cost Benefit Analysis of Dolan Creek, its waterworks and supply system, and the future requirements of the watershed's protected state. Such a report would be valuable evidence to present to the government's Revelstoke Hearing panel and related committees. In support of the Big Eddy District and the Columbia-Shuswap Regional District's concerns, BC Hydro offered to retain the professional services of Urban Systems Ltd., the engineering and planning consulting firm, for a formal impact evaluation report on the Big Eddy's water system.¹⁶⁷

The 58 page report, *Water Supply & Distribution System Study for the Big Eddy Waterworks District*, was completed in late October 1976, a preliminary draft copy of which was forwarded to BC Hydro representatives on the Water Comptroller's Hearing panel in late September, 1976. The Terms of Reference for the report stemmed from two concerns:

- the “*impact of the transmission line construction on Dolan Creek water quality*”;
- and “*alternate methods for providing substantially greater water supply quantities within the Waterworks District*”.

¹⁶⁷ Noted on pages 1 and 16 of BC Hydro's May 31, 1983 submission to the Environmental Appeal Board.

Recommendations for various cost estimate scenarios for proposed improvements and alternate water supply sources were provided at the end of the report. It identified a number of things about the Dolan Creek Watershed Reserve, the most important of which was that its drinking water quality was considered to be excellent, information that Urban System's researchers retrieved from interviews with civil servants.

In general surface water sources in the Revelstoke area meet or exceed all the Department of Health chemical and physical parameters for drinking water. Chlorination of existing surface water supplies is required when regular bacteriological samples taken by the Department of Health give positive results. The Big Eddy Waterworks District to date has not had to provide chlorination facilities on the Dolan Creek water supply since the Department of Health bacteriological tests have been negative. In comparison to the Department of Health water quality standards also presented in Appendix A, the Dolan Creek water quality exceeds all Department of Health Standards and can therefore be classified as an excellent water source.

¹⁶⁸

The report, however, failed to provide critical background information on why the drinking water was of an excellent nature, namely that a *Land Act* Watershed Reserve had been established to protect it since 1950. Though the Watershed Reserve was officially noted on the Ministry of Lands Departmental Reference Maps and on the Ministry of Forests Forest Atlas Maps, no reference was made in the Urban Systems report to its legal tenure status, nor to the Reserve's recent re-establishment in 1973 as a Watershed Map Reserve by the community watersheds Task Force. In addition to the report's neglect to include the Reserve details, there should have been an acknowledgement of how the Trustees were responsible for maintaining the water quality by their decades-long insistence against logging and public access, information that may have been critical for the Big Eddy Trustees in their later public process skirmishes with the Nelson Ministry of Forests Region.¹⁶⁹ Nevertheless, Urban Systems provided recommendations against road access and road construction in the Dolan watershed, and quoted the recommendations by the Ministry of Health on the introduction of chlorination treatment of the water supply:

*To minimize the effects of the right-of-way, an access road through the Dolan Creek watershed paralleling the hydro line should not be constructed. Access roads should terminate at the point of entering the Dolan watershed on each side.*¹⁷⁰

*The Hydro right-of-way within the Dolan Creek watershed increases probability of positive bacteriological tests and therefore suggests the need for disinfection by chlorination. This conclusion has been confirmed through discussions with Health Branch officials [Wayne McGrath].*¹⁷¹

*Chlorination of the water supply may also result in complaints from the users.*¹⁷²

¹⁶⁸ Pages 9 and 26.

¹⁶⁹ As related later, the Ministry of Forests failed to include this background history in its final Integrated Watershed Management Plan report.

¹⁷⁰ Page 28.

¹⁷¹ Page 27.

¹⁷² Page 53.

Big Eddy tackles Hydro

Big Eddy Water District is in a major fight with B.C. Hydro and unless they can get some support the trustees fear their water supply will be seriously affected by Hydro's plans to construct a 500 k.v. transmission line through their watershed at Dolan Creek and residents of Revelstoke may end up staring at a large swath cut over the western mountains dotted by transmission poles and lines.

A letter dated March 16 to Mr. Hunt of the Water Resources Branch in Victoria from Mr. Kibblewhite, a public relations officer for B.C. Hydro states:

'On the upper portion of the Dolan Creek Watershed the transmission line will cross at approximately right angles to the creek and our preliminary profile shows that it will not be necessary to disturb the creek bed nor the side slopes.'

The letter goes on to state, 'You will appreciate that our line crossing in this fashion should have little if any deleterious effect on the water quality or quantity.'

The Weather

	MAX	MIN	PCPN
April			
6	15	-2	trac
7	15	2	1.3m
8	15	-1	nil.
9	8	0	4.6
10	17	2	nil.
11	15	0	.3
12	15	1	trac

'We have been in touch with the Big Eddy Watershed Committee on several occasions and late last year we agreed with them to relocate the transmission line route so that the easterly routing would be downstream from the Big Eddy Dam. This relocation has been done.'

Clayton L. Stacey, Chairman of the Big Eddy Committee strongly challenged the contents of Kibblewhite's letter charging in a letter of his own to Mr. Hunt.

'The (Big Eddy) Trustees still object to any crossing of our watershed. The revised line still crosses Dolan Creek Watershed and also interferes with watersheds of Wells and Griffith Creeks, ruining any plans we might have for future expansion to our system.'

Mr. Stacey said Big Eddy is trying to get the line put north of Dolan Creek. 'If they carry out their present plans,' said Stacey, 'Big Eddy's water supply would be diminished and machines and workers would disturb the ground, resulting in filthy water for the district.'

According to Stacey, clearing of the area has already been put in the hands of the Forestry who could begin almost immediately.

'Both sides of the dam will be cleared. One side is steep and stuff will slide into the water.'

Stacey added the Forestry has been told to do nothing until they notify Big Eddy but he wasn't particularly confident this would be done.

Mr. Stacey said the pri-

mary concern of the Big Eddy trustees was to keep Hydro out of the watershed but as citizens they also wanted to get Hydro off the mountain. The transmission line will be clearly visible from the city and the natural beauty of the mountain will be completely spoiled by the wide cut and power lines.

The trustees have asked that B.C. Hydro compensate the District by perhaps diverting Wells Creek or Griffith Creek into the present system because Dolan Creek Dam is at capacity; hook-ups now and expansion of services is largely due to the B.C. Hydro proposed Canyon Dam.

They have also asked Mr. Hunt for assistance in negotiating with Hydro. Mr. Stacey said Hunt assured him last Wednesday he would send Hydro people out to confer with Big Eddy but said Stacey,

'He has not control over them. If we haven't heard anything by Tuesday (yesterday) we may have to do something drastic. However I would think they'll be out before that.'

The trustees warned that if action isn't taken citizens could wake up one morning to the ugly sight of the line over the western mountain said Stacey.

'People of Revelstoke don't really realize what they can get themselves into. This power line is only one instance and will affect Revelstoke more than the dam itself.'

The Waterworks District has circulated a petition which last Thursday had over 200 names. A copy will be sent to the Water Rights

Branch, the B.C. Dept. of Health, Bill King, M.L.A. and Robert Bonner, Chairman of B.C. Hydro.

The trustees and Stacey also plan to make pleas for support to the Advisory Planning Commission and expressed the view that the Council and Chamber of Commerce should become involved.



The Revelstoke Kinette awarded the Inter-Club trophies. The attendance at Zone held Mary 27.

Members of the club Levesque, June Jackman, Front row, Kinette, G Barbara Glover.

This is the first time th

Because of B.C. Hydro's proposed transmission line disturbances to the Dolan Creek Watershed Reserve, along with the expected influx of new residential units to the Big Eddy community from contract labourers to be hired for the Revelstoke dam project, the report recommended that the Big Eddy Waterworks District would either have to find an alternate water source or complement Dolan Creek from another source for additional water supply capacity.¹⁷³

Five options were considered. They involved the combination of water from other local watershed sources to the Dolan Creek supply, such as Wells and Griffith Creeks, nearby groundwater sources, or by tapping into the City of Revelstoke's water source, the Greely Creek Watershed Reserve, located just east of the City. Griffith and Wells Creeks were ruled out as alternate watershed sources due to lower water quality data resulting from previous logging activities and human access. Groundwater sources were also initially rejected because of the hardness of the water supply and possible contamination from wastewater seepage. The protected and intact Greely Creek Watershed Reserve was considered the best possibility:

*Although it is difficult to attach a dollar value to water quality, it is suggested that the extra capital cost of the connection to the City of Revelstoke system is justified from the point of view of the superior water quality achieved.*¹⁷⁴

Estimated capital costs for each of the options were provided, which included the construction of a large holding tank reservoir near the Dolan Creek intake:

- *Wells Creek option, \$1,094,000;*
- *Dolan Creek supplemented by groundwater, \$568,000;*
- *groundwater only, \$706,000;*
- *Greely Creek connection, \$845,000 (with a reservoir), or \$672,000 (without).*

Due to the anticipated increase of residential housing capacity associated with the Revelstoke Dam construction, both the City of Revelstoke and Big Eddy required detailed planning and cost assessments for upgrading their respective water utilities. As Urban Systems Ltd. recommended the option to connect with the City of Revelstoke's water supply, and to incorporate Big Eddy into the City of Revelstoke,¹⁷⁵ these options were later ruled out by the Big Eddy Trustees due to the implementation of increased residential taxes. As matters evolved, by 1982 BC Hydro would provide almost \$2 million for upgrading costs related to the City of Revelstoke's water distribution system from Greeley Creek. BC Hydro later stated that the \$2 million provided was done in anticipation of Big Eddy coming on line, a situation that never transpired politically.¹⁷⁶

¹⁷³ Urban systems hypothetically projected an influx of about 1,000 residents, for a total of 540 connections. This would double the amount of existing connections in 1976.

¹⁷⁴ Page 55.

¹⁷⁵ "The entire community, including, the City of Revelstoke, Big Eddy, South Revelstoke, Arrow Heights, and the proposed Hydro dam site, should be reincorporated as a single municipality." (Page i, Urban Systems, *Sub-regional planning study*, December 1976.)

¹⁷⁶ B.C. Hydro's submission to the Environmental Appeal Board, May 31, 1983, page 5. "The City insisted that the current upgrading program for a projected area population of 12,000 (cost estimate \$2 million) had to be increased for the projected Big Eddy population of 2,000."

5.6. The September 28th Hearing

On September 28, 1976 the former chairman of the Big Eddy Trustees, Clayton (Clay) Stacey, a sharp-witted, articulate, heavy duty mechanic, cross-examined BC Hydro's representatives Mr. Martin and Harold Gruber on the Water Comptroller Hearing's socio-economic (benefit/cost) panel.¹⁷⁷ Based on the original recommendations from the Ministry of Health for an alternate water supply, Stacey repeatedly asked if BC Hydro "was prepared to meet any and all costs to supply" the Big Eddy Waterworks District "with an alternate supply equal in quality and quantity to Dolan Creek due to the KV line crossing the watershed."



Author's photo of Clay Stacey, 2008

MR. MARTIN: *I think if we are going to stick to a consistent criteria if we are going to damage that supply by virtue of the work we are doing there then, we are obliged to replace it, but up to the limit of our impact on it.*

STACEY: *Then you will in fact supply alternate water up to the existing quality and quantity.*

MR. MARTIN: *Provided it's shown that our work or activity relates to that impact.*

STACEY: *I would think that this power line is part and parcel of the dam. I would think it would be part of the water licence that any deteriorating effect to anything on that particular phase would be almost mandatory that B.C. Hydro would guarantee to absolve this.*

MR. GRUBER: *We recognize that the transmission line is ancillary to Revelstoke 1880 and we are prepared to deal with the impact of that transmission line on the water system, we can live with that for a condition of the licence as long as it doesn't go beyond the realm of technological capability.*

STACEY: *You seem to be prepared to live with that as a condition of the licence but you are still not prepared to give a guarantee to supply water of equal quality and quantity that is now supplied through the Dolan shed.*

MR. GRUBER: *The same qualification would apply. We would guarantee that within the limits of physical and technological capability, which we do not know at this stage.*

¹⁷⁷ Transcripts Volume 16, pages 45-74. Other committees involved at the time were the Revelstoke Community Impact Committee, and the Revelstoke Project Co-Ordinating Committee. BC Hydro was not a regulated utility until 1980, and the BC Utilities Commission was not involved with the Revelstoke hearings.

STACEY: O.K. We can say that you will guarantee - - the original question to supply if technologically possible. Also on the same subject, as you know the Dolan shed is sort of a pressure tank you might say, to the Big Eddy water district, giving us roughly 70 to 75 pounds pressure depending on where we live, a pressure valve. Now with the demolition of the Dolan shed and the Big Eddy water reservoir it means that any supplementary water to that water shed will be at a greater cost due to the fact that we don't have that reservoir effect for pressure. Is B.C. Hydro prepared to shoulder that cost as well, the extra?.... The point that I'm trying to make here is this is a water rights hearing and the fact that things don't come up in this hearing may or may not be mitigated later at Hydro's discretion and if it is a condition of the licence it must be mitigated. As you know, the situation we have there now, we have been attempting for two years to boost our own supply because we are at a maximum and our cheapest way to boost it is to do something with Dolan Creek at a minimal cost and if this is subsequently destroyed it is going to be a very great cost to supply the people of Big Eddy, it's not our fault, we're not putting the power line through there and I would like a guarantee from Hydro that they will shoulder that cost.

5.7. The Debate over an Alternate Source

Immediately following the B.C. Hydro Revelstoke hearings, Wayne McGrath, the Vernon Department of Health Engineer, notified BC Hydro of its mitigation commitment responsibilities regarding an alternative drinking water source to Dolan Creek:

*This will acknowledge receipt of your reply to our Deputy Minister's letter of June 30, 1976 regarding the above referenced waterworks system. I have recently been advised by the Chairman of the District that B.C. Hydro has now offered to provide an alternate source of water supply for the District to replace the Dolan Creek supply. The Health Department is vitally concerned that an alternate source of water supply be obtained and made operable prior to any activity commencing within the Dolan Creek watershed. Considering the time that will be involved with negotiations, design and construction of any alternate source of water supply, we feel that a final decision must be made very shortly as to what alternate source will be provided. Due to the present limited capacity of the Dolan Creek watershed and also due to the uncertainty regarding the future quantity and quality of this supply, the Health Department has imposed a "freeze" on any future expansion of the District's distribution system. Once a definite decision has been made as to a suitable alternate supply, this "freeze" will be lifted. Therefore, could we please be advised when such a decision has been finalized.*¹⁷⁸

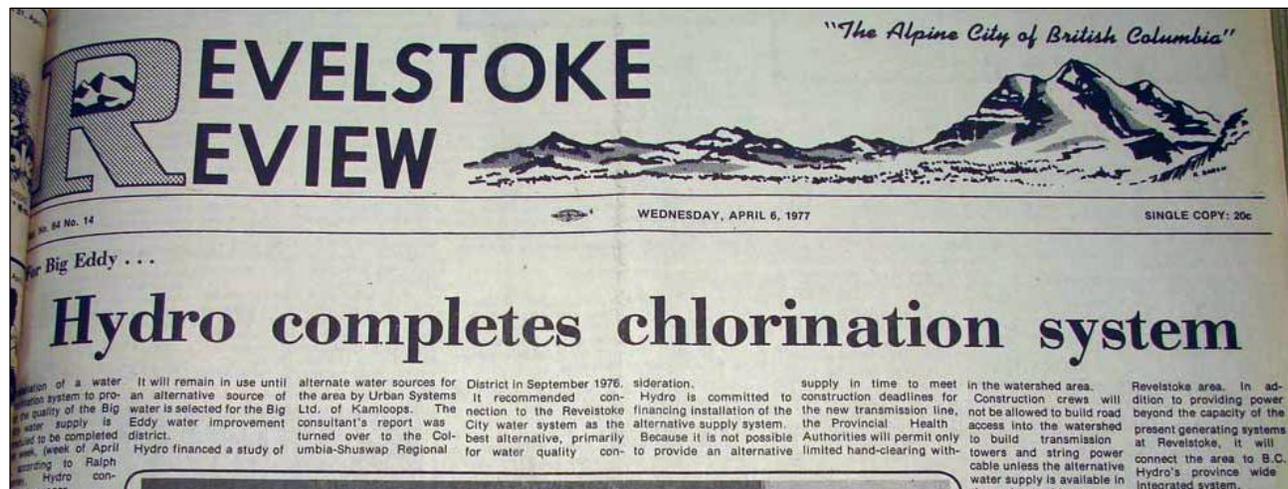
On December 1, 1976, the Comptroller of Water Rights provided a Conditional Water Licence agreement under the *Water Act* for B.C. Hydro's Revelstoke Dam. Under two subsections of the agreement, BC Hydro had to provide for mitigation measures and the approval of environmental guidelines for its construction plans. A separate clause stipulated to whom the fees were to be submitted:

(r) The Licensee shall prepare environmental guidelines for all construction-related activities, for the approval of the Comptroller of Water Rights, and shall in the course of such activities, adhere to environmental guidelines as directed by the Comptroller of Water Rights.

¹⁷⁸ Wayne McGrath, Vernon Department of Health Engineer, to G.J. Goldie, Manager, System Engineering Division, B.C. Hydro & Power Authority, November 5, 1976.

(s) The Licensee shall carry out programmes for the mitigation of adverse impacts on the local community as directed by the Comptroller of Water Rights in accordance with annual budgets prepared in consultation with appropriate local public agencies and approved by the Comptroller of Water Rights.

(x) The licensee shall reimburse the Minister of Finance for the costs and expenses of the PROJECT CO-ORDINATING COMMITTEE, to be appointed by the Comptroller of Water Rights, for the purpose of considering and making recommendations to the Comptroller in respect of the orders and approvals to be given by him with respect to those matters set out in clauses (k), (l), (n), (o), (p), (r), (s) and (v) of this Licence.



In February 1977, Wayne McGrath contacted BC Hydro about its obligation to install a chlorination facility for Dolan Creek. BC Hydro proposed to “provide chlorination facilities at the Dolan Creek intake as a temporary measure to continue providing domestic water to the Big Eddy Waterworks District.”¹⁷⁹ By March 1977, Hydro installed a chlorinator at the Dolan intake and agreed to pay the Big Eddy Waterworks District:

*\$1,500 per month plus the cost of power for operating the chlorinator for as long as it is required. In addition, B.C. Hydro has adopted transmission line construction techniques intended to limit the water-quality related damage to the watershed.*¹⁸⁰

Negotiations and considerations about an alternate source, however, proved to be tedious and difficult, and the negotiation process went into a stalemate for a period of three long years (1977-1979). Urban Systems’ main recommendation was to replace the Dolan Creek supply with the City of Revelstoke’s source at Greeley Creek, as it considered Revelstoke’s source to be slightly superior in quality to Dolan Creek. A second possibility was to simply supplement the Dolan Creek source with Greeley Creek water. Overall, the two Urban Systems reports urged the community of Big Eddy to incorporate itself with the City of Revelstoke. This recommendation led the Big Eddy

¹⁷⁹ February 11, 1977 telephone discussion with Harold Gruber, B.C. Hydro. In Wayne McGrath’s letter to G.J. Goldie, Manager, System Engineering Division, B.C. Hydro & Power Authority, February 14, 1977.

¹⁸⁰ J.W. Webber, Assistant to the Water Rights Comptroller, to R.H. Spinney, B.C. Hydro Construction Manager, April 10, 1978.

Trustees to investigate changes it would have to undergo related to new administrative governance and public taxes.

For instance, Big Eddy received a letter from the Ministry of Municipal Affairs on January 31, 1980, in response to its investigations of becoming a municipal service. The Ministry informed Big Eddy that the government was actively reviewing regional government reform, and provided a long list of administrative procedures for incorporation. The Big Eddy Trustees were both reluctant to complicate administrative matters and costs, and to hand over their autonomy and governance to the City of Revelstoke, as the community had its own strong and simple legal identity. BC Hydro, which was responsible for instigating the debate, found itself caught in the middle of the crossfire.

Matters regarding an alternate source were finally ironed out in a January 31, 1980 seven-page report.¹⁸¹ Regarding bulk water supply from the City of Revelstoke, the City outlined its terms and conditions in a letter to Big Eddy on October 25, 1979. Big Eddy discovered that it would have “*substantial initial and recurring expenses, and that these would be such as to result in a bulk supply from the City being more expensive than either the surface or groundwater alternatives.*”¹⁸² Costs related to other surface-fed watershed sources were also considered too high, and were ruled out, including disadvantages from degraded water quality conditions in other watersheds influenced by “*logging activities*”. The report concluded that:

*The results of the investigations carried out to date show that Dolan Creek represents the best and most economical source of water for the Big Eddy Water Works District. In view of the concerns which have been raised with respect to the possible changes in both the quantity and quality of water from this source if the transmission line is constructed, alternative sources to supply the District during periods of transmission line construction and subsequently to supplement the supply from Dolan Creek during peak demand periods have been examined.*¹⁸³

The alternative source described in the report was to come from nearby groundwater sources:

*It is recommended that the District proceed with the construction of a production well located close to the existing well, and that water be pumped from this well through the water distribution system to a concrete storage reservoir having a capacity of approximately 1400 cubic meters. An additional pipeline from the storage reservoir to tie into the distribution system, and silt control measures at the Dolan Creek intake should also be considered.*¹⁸⁴

With these matters finally settled, BC Hydro could then proceed with its end of the bargain before construction on the transmission power line right-of-way commenced. It then provided capital of \$850,000 for the construction of a 300,000 gallon concrete water storage reservoir beside the Dolan Creek intake, two wells, two 200 gallon-per-minute pumps, and supply line connections.

¹⁸¹ Project 1221, Big Eddy Water Supply, Project Memorandum 1221/7, Alternative Water Sources for Big Eddy, by C.R. Bland, professional engineer.

¹⁸² With the recent addition of a \$7 million filtration plant at Greely Creek, not including annual operations and maintenance costs, the City of Revelstoke now pays a higher premium for its water.

¹⁸³ Page 5.

¹⁸⁴ Pages 6-7.

5.8. The Transmission Line Construction Period through Dolan Creek

Despite never formally referring to Dolan Creek's conflicting legal tenure status as a Watershed Map Reserve – the legislation that excluded all dispositions on Crown lands within the Reserve – the Comptroller of Water Rights, Howard DeBeck, authorized BC Hydro to construct a transmission line through the Crown lands within the Reserve based upon an agreement signed on June 8, 1980. The agreement was conditional upon BC Hydro observing details in a six-page *Environmental Guidelines* document, which was approved by the Revelstoke Project Coordinating Committee on April 24, 1980:

1. Introduction.

The guidelines presented in the memorandum have been prepared on the assumption that an alternative water supply will be provided for the periods during which the transmission line will be constructed, and that Dolan Creek will supply Big Eddy with water after completion of construction. Dolan Creek watershed must be harvested in a manner which will maintain and protect water quality and yield.

2. Guidelines.

Contract documents for all proposed work within the watershed shall be submitted to the Big Eddy Water Works District's engineers for review prior to commencement of work. Access shall be restricted to personnel engaged in the work. No servicing of vehicles and equipment shall be carried out within the watershed except for small hand tools. Extreme caution shall be taken to avoid spills of fuel and oil. All spills that occur shall be cleaned up immediately. Contaminated soil shall be removed from the watershed. Portable self-contained privies shall be placed in areas which men are working, and the use of these at all times shall be strictly observed. No chemicals shall be permitted to be used within the watershed for pest or vegetation control. Fertilizers approved by the Big Eddy Water Works District may be selectively used to promote reestablishment of vegetation on erodible surfaces.

No logging shall be permitted between April 1 and December 1. Logging operations shall only be permitted at times when the snow-pack is determined by the Forest Officer of the Ministry of Forests to be sufficient to adequately protect the site from excessive ground disturbance. Treatment after logging shall not include broadcast burning.

Throughout the period of transmission line clearing and logging activities, the Big Eddy Trustees remained cautious and alert, and carefully and vigilantly monitored the operations.¹⁸⁵ Had the Trustees not done so, BC Hydro and the contractor would have gotten away with breaking a number of the conditions provided in the Water Comptroller's *Agreement*. As it turned out, the *Agreement* had to be amended because of a number of infractions committed by the logging contractor.

The voluntary monitoring of logging activities by the Big Eddy Trustees was extremely important for BC's water users/purveyors. Such actions that scrutinized logging contractors had rarely taken

¹⁸⁵ In early 1980, B.C. Hydro changed the right-of-way location of their transmission line from the location directly above the concrete dam and intake works, westward up the slope. "The dam and reservoir was in the middle of the right of way as evidenced by B.C. Hydro DWG # 50076 - T07 - X24. There was no consultation with Mr. C. Stacey on relocation above the dam. Mr. C. Stacey knew nothing of this route until field inspection in February 1980 with Knight and Piesold engineers, when checking for tributaries on right of way to Dolan." (Clay Stacey letter to Environmental Appeal Board, July 14, 1983.)

place, particularly under the legal circumstances related to a contractual agreement. For instance, the Greater (Metro) Vancouver's concerned citizenry never had the opportunity, and were prevented from monitoring and documenting first-hand the logging and road building activities that took place in the Greater Vancouver Water Districts' three watersheds, the Capilano, Seymour and Coquitlam from the late 1960s to the mid 1990s. As long as the conscientious and critical public was effectively barred from these three watersheds because of an historic no trespassing policy meant to keep the public out, and as long as Water District staff towed the bottom line, the forest industry could maintain its highly controversial standard refrain by government and private industry that logging would "*maintain and enhance*" water quality.

In late November 1980, the Ministry of Forests contracted a local logging company, Joe Kozek Sawmills Ltd., for the transmission line clearing. On December 8, 1980, forester Dave Raven¹⁸⁶ with the Ministry of Forests Revelstoke District office in Big Eddy was contacted by the Ministry of Environment's regional office in Nelson because of complaints that road building and logging had begun "*prior to an alternate source of water being made available to Big Eddy Waterworks District.*"¹⁸⁷ Evidently, things were off to a bad start.

A field inspection on December 17, 1980 by Big Eddy chairman Clay Stacey and MoF forester Dave Raven, discovered that a road right-of-way had an inadequate number of "*culverts constructed for the stream crossings which could create sedimentation problems to Dolan Creek*",¹⁸⁸ and that a clearing project landing was 10 meters distant from an intermittent stream, and 20 meters from Dolan Creek, in violation of the guidelines that called for landings to be situated 100 meters from "*streams and gulleys*". The inspection also noted that the bridge crossing approach would disturb stream banks. A revised guidelines document was then agreed to with the Water Comptroller to accommodate these changes. The Ministry of Environment noted:

*The cutting permit incorporates many of the environmental guidelines set out in the water licence, however some have been amended and will likely result in Dolan Creek receiving sediments and flowing dirty during wet periods of the year. [Mr. Stacey was] advised that their dam on Dolan Creek will require annual maintenance as a result of the heavily sedimented water. It is the opinion of this office that based on the amended environmental guidelines being utilized and the proposed harvesting plan for the transmission line clearing, that every spring freshet and severe rain storm will result in Dolan Creek being unsuitable for domestic use for the next three to five years.*¹⁸⁹

On February 9, 1981, the Big Eddy Trustees forwarded a letter of concern to the Revelstoke Impact Committee, complaining about the transmission line logging:

*The apparent abuse of the environmental guidelines on the clearing of Dolan Creek will necessitate use of the pumping alternative for about ten years. As a result of this the B.C. Hydro & Power Authority should be advised that it may be necessary to fund yet another alternative water supply in the event of failure of the present untested pumping station.*¹⁹⁰

¹⁸⁶ Dave Raven would later be elected as the mayor of Revelstoke City, 2008 following.

¹⁸⁷ Ken Gorsline, Water Management, Nelson, to Comptroller of Water Rights, January 8, 1981.

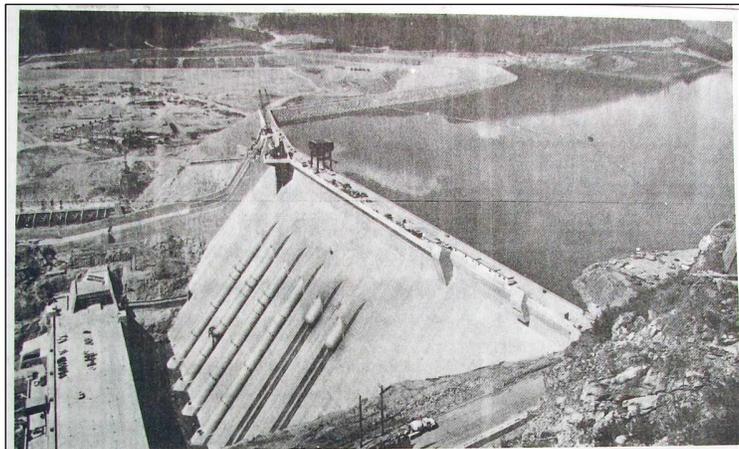
¹⁸⁸ Ibid.

¹⁸⁹ Ibid.

¹⁹⁰ Big Eddy to George Evans, Chairman, Revelstoke Impact Committee, February 9, 1981.

As a result, another field trip to the Dolan Creek clearing and construction site was organized, this time with an entourage of visitors: Ken Gorsline and John Dyck of the Water Rights Branch in Nelson City; Kevin Campbell with BC Hydro; Phil DesMazes with Joe Kozek Sawmills; foresters Dave Raven, Paul Dean, and Paul Kuster with the Ministry of Forests District office in Revelstoke; Harry Quesnel and Tom Braumadl with Nelson City Ministry of Forests Regional office; and Clay Stacey and Lloyd Good of the Big Eddy Waterworks District. This resulted in having the forest licensee commit to six further conditions to “complete their obligations”, cleaning out logging debris in the stream channel, removal of a temporary bridge, removal of slash and debris, upgrading road ditching, grass seeding:

*The Forest Service will monitor the Dolan Creek area on a weekly basis (more often during heavy rains or warm spells). This will be done until the breakup period is over.*¹⁹¹



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Five months later, Michael Taylor, the chairman of the Revelstoke Community Impact Committee, provided a summary review report of the transmission line impacts, along with further cost and mitigation recommendations for BC Hydro. The first recommendation called for BC Hydro to pay 70 percent of the operating and maintenance costs for Big Eddy's new groundwater pumping station over the next five years, because, as found in the Water Comptroller's Hearings in 1976, Hydro's Revelstoke dam project was responsible not only for the degradation of Big Eddy's water supply, but also for increased residential occupancy in Big Eddy. These costs, along with a pump alarm system, amounted to an additional \$28,000. The third recommendation involved rehabilitation costs to the Dolan Creek watershed:

Clearing of the transmission line right-of-way in the Dolan Creek watershed by the contractor working on behalf of British Columbia Hydro did not take place in accordance with the environmental guidelines established by the Project Co-ordinating Committee. Concerns raised by the District and others concerning unnecessary damage to the watershed prompted Hydro to agree that a consultant would be retained to assess this damage and consider rehabilitative works. To help ensure that Dolan Creek can provide an acceptable source of

¹⁹¹ L.P. Kuster, Operations Superintendent, Revelstoke Ministry of Forests, Brief Summary of February 25th, 1981 Fieldtrip to Dolan Creek, T.S. A10326.

*domestic water at the end of five years, it is recommended that this assessment be done and that suitable remedial measures be carried out within a suggested budget of \$5,000.*¹⁹²

Had BC Hydro, the BC Forest Service and the Social Credit Party administrative government respected the legislative protective tenure status of the Dolan watershed as a Watershed Map Reserve, all of the combined grief, accumulating financial and environmental costs that had unfolded since 1975 would have been appropriately avoided.

The violation calamity of the Dolan Creek Reserve was symbolic of events unfolding throughout British Columbia's other Watershed Reserves.

¹⁹² July 27, 1981.

6. THE ROAD TO THE ENVIRONMENTAL APPEAL BOARD

In August 1981, there were two outstanding issues that followed the recommendation report of the Revelstoke Community Impact Committee regarding BC Hydro's transmission right-of-way through the Dolan Creek Watershed Reserve:

- the first was related to the rehabilitation of the BC Hydro transmission line construction area in the Dolan Creek watershed which the Big Eddy Trustees continued to carefully monitor, and;
- the second was a dispute from the Big Eddy Water District on insufficient financial compensation costs from B.C. Hydro, a concern that led to a formal complaint to the Environmental Appeal Board.

6.1. Skirmishes about Additional Funding

Clay Stacey, chairman of the Big Eddy Trustees, wrote a letter of response to the Revelstoke Community Impact Committee's report recommendations of July 27, 1981:

We cannot agree with [the] recommendation that British Columbia Hydro not assist in upgrading cost. The Trustees of the Big Eddy Water District have worked very hard to keep cost to a very minimum so as to give our people the benefit of low cost water. We feel that the system now supplied by British Columbia Hydro funding should also be maintained by said British Columbia Hydro & Power Authority to maintain the low rates, or all our work and planning is of no consequence.

The cost of operating system should be closely monitored and funds regulated accordingly. The water flow in Dolan Creek will be considerably reduced from the clearing and because of British Columbia Hydro's activities in the water shed, it will be necessary to chlorinate and possibly filter whenever using Dolan Creek system. We find no allowance or funding made for this expense when we go back to Dolan Creek.

The cost of operating Dolan Creek system prior to British Columbia Hydro's entering our watershed was roughly \$200 a year. Present cost should continue to be Hydro's responsibility until it is proven Dolan Creek is restored to original quality and quantity. The District is also faced with an additional cost of \$1,000 or over for insurance alone for the new system. Since the Big Eddy Water District's beginning, successive Board members have worked very hard and put in many hundreds of hours their free time as well as booking off work without pay to give this community a good supply of excellent water at as low a rate as possible. Before British Columbia Hydro & Power Authority became involved with the power line through Dolan Creek water shed, the successive Trustees achieved their goal. They had done this by good planning, such as building the dam on Dolan Creek so as to allow for easy raising of the height to triple the water reserve to around 300,000 gallons.... These long range economical measures were made redundant by British Columbia Hydro's entering Dolan Creek water shed, thus the system installed and funded by B.C. Hydro was made necessary after attempts to secure service from other sources failed. If all recommendations by Water Management

Branch are followed - how does the present Trustees tell their people they have to support this high cost system made necessary by British Columbia Hydro & Power Authority.

BC Hydro also responded to the Revelstoke Community Impact Committee's report, but not until October 20, 1981. As Hydro stated to the Committee at a meeting on August 13:

*B.C. Hydro will not agree to any additional funding for the Big Eddy Water system unless so directed by the Comptroller of Water Rights. Although B.C. Hydro considers a rehabilitative period of five years for the Dolan Creek watershed to be excessive, B.C. Hydro agrees that an assessment should be made of the measures required to rehabilitate the Dolan Creek watershed from damages caused by transmission line clearing and construction, and to fund such remedial measures up to \$5,000.*¹⁹³

The Big Eddy Waterworks District forwarded a second letter to the Revelstoke Community Impact Committee chairman on December 11, 1981, reinforcing their concerns about financial compensation from BC Hydro.

The Big Eddy Water District would like to point out that the cost of operating, maintaining and replacement of pumps was an expense not required prior to B.C. Hydro's transmission lines entering Dolan Creek watershed. Due to B.C. Hydro's activities in Dolan Creek water shed, some type of filter system will be required before Dolan Creek can be put back in operation. Also reduced water flow during summer months will now have to be compensated by pumping. Enclosed, please find actual cost of operating chlorinator for 1980 - an average of \$250 per month. We believe B.C. Hydro should be required to compensate Big Eddy Waterworks for this extra cost if Dolan is put back in operation. In summary, the many costs to the Water District made necessary by B.C. Hydro & Power Authority entering Dolan water shed, should be paid for by B.C. Hydro as agreed by B.C. Hydro at the hearing into the water licence; the District should not have to pay these extra costs. Why should a small segment of the population of British Columbia be penalized by higher water costs so the rest of B.C. can enjoy cheaper power?

However, it wasn't until March 24, 1982, that P.M. Brady, the new Comptroller of Water Rights, finally responded to concerns forwarded by the Big Eddy Trustees, along with correspondence of support from W.S. King, the New Democratic Party M.L.A. for the Riding of Shuswap-Revelstoke:

I concluded that the impacts of the Revelstoke Project on the District did not warrant compensation over and above the money and works which have already been provided plus the amounts contained in the recommendations. With reference to the twenty-eight thousand dollars proposed as compensation in the July 27, 1981 report, it must be noted that this was simply a set of recommendations from one member, albeit the Chairman, of the Committee. The purpose of the report was to assist the Committee as a whole in reaching a decision. As it turned out, the Committee concluded that something less than the package recommended was appropriate. By providing the report to the District in an effort to be as open as possible, the Committee apparently raised false expectations. However, I did not consider it appropriate to allow this to influence my deliberations.

¹⁹³ R. H. Hunt, Vice President, Engineering Projects, to Chairman G.F. Cox, Revelstoke Community Impact Committee, Water Management Branch, Victoria. October 20, 1981.

Lloyd Good, a railway engineer with the Canadian Pacific Railway Company, and the new chairman of the Big Eddy Trustees who replaced Clay Stacey in April 1982, responded to the Comptroller's letter on April 26, 1982:

We the Trustees of the Big Eddy Waterworks District urge you to reconsider your decision in regards to operating costs of the Big Eddy water system. Enclosed please find the total operating costs from March 1981 to March 1982 [\$12,285] ... these costs are directly related to B.C. Hydro's intrusion in the Dolan Creek watershed. The experts tell us that in 5 to 6 years, the damage done by the transmission lines in Dolan Creek will have repaired itself so that we could go back on this supply. We would like to point out that before Dolan Creek can be used, some type of filter system would have to be installed at the water intake. The cost of this filter is also directly related to B.C. Hydro's activities in Dolan Creek watershed. We do not believe the people in Big Eddy Water District should be required to subsidize the building of the Revelstoke Dam by being required to pay a higher water fee.

The BC Water Comptroller responded on June 4, 1982 by objecting to Good's statement about higher fees being a "subsidy" for the Revelstoke Dam. Brady also made a comparison of rates being paid by other Waterworks Districts, such as Canal Flats, Sicamous, and Sorrento, and stated that Big Eddy was paying less for maintenance and power supply costs than those others. He also stated that he would be writing a press release on this matter.

Lloyd Good then responded with a letter on June 17 and then former chairman Clay Stacey on June 28, where they challenged the Comptroller's arguments and presented him with more costs:

*Due to the large increase in Hydro rates and the long hours the electric pumps are operating, it appears it will be necessary to go back to Dolan Creek water supply as soon as possible. Because heavy rain fall or mild weather will create a heavy run off in Dolan Creek, it will be necessary to build some type of filter system to prevent the storage tank and distributing line from being plugged with silt. Would you please advise what type of filter would be suitable for the Dolan Creek water system; and also a cost estimate to build, install and maintain this filter system.*¹⁹⁴

*In your letter of June 4th, you compare our operating cost with Canal Flats, Sicamous and Sorrento. This I fail to understand: the only fair comparison is our cost before B.C. Hydro & Power Authority entered into Dolan Creek watershed and our operating cost. Furthermore, we are not aware of water rates in Canal Flats or Sorrento, but as a home owner in Sicamous and also a Board member, we are aware of Sicamous rates of \$31.85 for three months or \$127.40 per year which is far from the reasonable rates the Big Eddy Waterworks have been able to provide before B.C. Hydro and Power Authority entered into the Dolan Creek watershed. Possibly the Government's austerity program has had an influence on your decision. In that case it would be a false influence, as the Big Eddy Water District have been on an austerity program since incorporation. Your decision would shift B.C. Hydro's responsibility to the water users of the Big Eddy Water District at the licence hearings in 1977 [sic, 1976]. If this decision of your office is allowed to stand, I still say we are subsidizing B.C. Hydro & Power Authority's 1880 Dam at Revelstoke.*¹⁹⁵

¹⁹⁴ June 17, 1982.

¹⁹⁵ June 28, 1982.

The Water Comptroller responded to both letters on July 13, 1982, wherein Brady concluded that BC Hydro had already provided enough financial compensation for all related costs. He summarized that the “*District has been treated fairly*” and that “*Hydro has met its commitment*”:

Finally, I must comment on your proposal to construct the filtration works. It is my position that the pumping installations and associated works funded by B.C. Hydro and agreed to by the District were constructed to meet the same purpose as the proposed filtration works. Therefore, as this purpose is already met, the costs of these works cannot be attributed to the Revelstoke Project.

On February 3, 1983, G.F. Cox, the Chairman of the Revelstoke Community Impact Committee wrote to the Big Eddy Trustees that final payment was being provided to them from BC Hydro’s Trust Account, in the arrears of \$8,000. The Comptroller of Water Rights also made a final determination on the matter in a February 1, 1983 letter to the Big Eddy Trustees, wherein he also mentioned that Big Eddy had the option to appeal his decision with the Environmental Appeal Board:

*It is well understood that the cost of operation and maintenance is part of the mitigation and cannot be considered as a separate issue. It has also been established by people from your department as well as our engineering firm, that a filter would be necessary before Dolan Creek could be put back into operation. Please advise us the name of the Chairman of the Environmental Appeal Board. We feel it is unfair that after waiting six months for your reply and decision, we are given less than 30 days to appeal. We found no environmental Appeal Board regulations enclosed with your letter. Would it be possible to forward them as soon as possible or have the Chairman of the Environmental Appeal Board contact us.*¹⁹⁶

6.2. The Grazing Permit Application on BC Hydro’s Right-of-Way

To add insult upon injury, the Big Eddy Trustees received a notice from the Ministry of Forests’ Revelstoke Forest District office on February 8, 1983 regarding an agricultural grazing permit application for “*twelve head of horses*” along BC Hydro’s right-of-way within the Dolan Watershed Reserve. They replied:

*The Trustees are very disappointed that fences haven’t been erected at all roads and openings that were built and used by logging contractors who cleared the R/W and also contractors who erected towers; which lead into Dolan Creek watershed. It was our understanding that under the Environmental Guidelines that this work would be done. We strongly object to the grazing of any types of animals or intrusion in the proximity of Dolan Creek watershed, as yet there are no fencing off access to said shed as per agreement. We also intend to resume operation of Dolan Creek as a water supply as soon as possible and any grazing near the said watershed will undoubtedly mean animals would enter our watershed. Hoping this application is denied by your department to protect our water system.*¹⁹⁷

¹⁹⁶ Lloyd Good, Chairman of the Trustees, to P.M. Brady, Water Comptroller, February 8, 1983.

¹⁹⁷ Lloyd Good, Chairman, Big Eddy Waterworks District, to the Ministry of Forests District Manager, Revelstoke, February 14, 1983.

Why Revelstoke Forest District Manager Harvie did not immediately reject the grazing permit is not known. Certainly, given the long, agonized history of the disputes with and position of the Big Eddy Waterworks District, the MoF would have anticipated Big Eddy's response.¹⁹⁸ As expected, the grazing permit application was subsequently denied.

6.3. The Environmental Appeal Board Hearing and Findings Create a Provincial Precedent

On February 23, 1983, the Big Eddy Trustees took Water Comptroller Brady's advice and filed an appeal to the provincial Environmental Appeal Board:

... in connection with compensation and mitigation by B.C. Hydro and Power Authority for damage to Dolan Creek watershed and the cost of operating alternating water supply. We believe the Comptroller has reversed the commitment agreed to at the water licence hearing in September of 1976.

The Trustees received confirmation of their appeal application from the Chairman of the Appeal Board, F.A. Hillier, and were requested to provide more information. On March 15, Hillier notified BC Hydro of the appeal and asked it to provide "*information which would help the Board in coming to a decision on this matter.*" Big Eddy provided the added information to the Appeal Board on March 24, stating:

- (a) Hydro and the Comptroller were not conforming to their commitments as stated during the Hearings in 1976;*
- (b) annual costs related to the pumping of well water were well beyond that which the District expended prior to B.C. Hydro damaging their water supply from Dolan Creek;*
- (c) the District wants B.C. Hydro to pay for "these tremendously high operating and maintenance costs.*

Darlene Barnett, Solicitor for BC Hydro's Legal Division on the 18th floor of its former headquarters located on the corner of Burrard and Nelson Streets in downtown Vancouver, requested the Environmental Appeal Board to forward her a copy of Big Eddy's appeal, in anticipation of the hearing scheduled in Revelstoke's Community Centre on May 31, and June 1, 1983. In a subsequent letter, the Appeal Board stated to Barnett:

You will have the opportunity at the hearing to make a presentation, and will be subject to cross-examination by the appellant, the Comptroller of Water Rights and the Board. You will also have the right of cross-examination.

Barnett prepared a 23-page submission for the Revelstoke hearing. In her cover letter Barnett stated that BC Hydro agreed with the Water Comptroller's February 1, 1983 "*analysis and decision*", and that the Appeal Board "*reject the Appeal*" by the Big Eddy Waterworks District. The submission

¹⁹⁸ The Ministry of Forests has provided cattle and horse grazing permits along BC Hydro's right-of-way in other domestic and community watersheds. These are controversial issues, one of which was reviewed by the Forest Practices Board (June 2002). The BC Tap Water Alliance summarized this review in chapter 5 of its June 30, 2002 presentation to the government's Results Based Code Review Panel, *Results-Based Management of British Columbia's Drinking Water Source Watersheds*.

covered a lot of ground, and detailed, chronologically, the unfolding of events over an eight-year period glossed from transcripts, reports, correspondence, and meeting minutes. In her presentation that summarized facts on why BC Hydro was to provide an alternate source to Dolan Creek, Barnett, however, failed to include the September 1975 correspondence from the Ministry of Health, which was responsible for the directive to do so. All costs incurred by BC Hydro related to the Dolan watershed and an alternate source amounting to \$1,112,538 were included, and Barnett argued that BC Hydro had fulfilled its obligations and provided sufficient funds to date. Barnett also included a summary on the financial advantages and disadvantages of the state of the Dolan watershed and the groundwater alternate site, which included the following:

(f) A disadvantage of a new system is that the wells, at some future date, (approximately 20 years) may have to be redeveloped by acid treatment.

(g) The new pumping system and reservoir require power to operate and the cost of this power is an added liability to the Big Eddy Waterworks District.

(d) The maintenance requirements for the wells be less than those for the Big Eddy Dam intake. During the freshet there would be a relatively high amount of suspended solids in the Dolan Creek which would result in the requirement for annual cleanout of the intake. These suspended solids would also infiltrate into the distribution system and result in sediment in the pipelines which again would result in flushing out of the lines on an annual basis.

*(c) **The quality of water coming from the wells will be more consistent than that of the Dolan Creek watershed supply. The Dolan Creek water supply was a surface water supply and was therefore subject to contamination** [bold emphasis].*

Contrary to the Urban Systems report findings of October 1976 – the consulting company that BC Hydro retained for the Big Eddy Waterworks District – **BC Hydro introduced a new argument, insinuating through Barnett’s section (c), above, that Dolan Creek may not have been such an excellent source of water quality after all!** B.C. Hydro was, apparently, conjuring up this inference in order to make it appear as though the groundwater replacement and augmentation to Dolan Creek was of a superior nature.

To bring credence to BC Hydro’s new twisted line of reasoning, two weeks later the Environmental Appeal Board received a letter from M.R. Smart, Medical Health Officer and Director of the North Okanagan Health Unit, to support and validate the inference by BC Hydro about Dolan Creek being a tainted and unreliable source:

I have been informed by a Mr. Webber of the Ministry of Environment that at the above hearing, representatives of the Big Eddy Water District stated that prior to 1977 no positive samples had been obtained from their water system. I regret that our records prior to 1975 have been destroyed and I therefore cannot provide laboratory evidence of faecal contamination. I can state however that Mr. Kirk, Chief Public Health Inspector for this Unit would be willing to provide you with a statement that beaver were residents of Dolan Creek and the dam basin for a number of years prior to 1977. He and I would not hesitate to state that positive faecal coliform samples were obtained prior to 1974 although we cannot document that fact. From the above results one would have a great deal of difficulty in

*ascertaining when B.C. Hydro intruded into the Dolan Creek watershed. I would respectfully submit that faecal coliform contamination of Dolan Creek was present prior to 1977.*¹⁹⁹

On July 14, justifiably angry Big Eddy Trustee Clay Stacey forwarded a letter to the Environmental Appeal Board stating, emphatically, that beavers had never resided nor been found in Dolan Creek since the Big Eddy Waterworks District began supplying domestic water to its customers:

As for beavers being resident in Dolan dam and creek above dam: we have not at any time found evidence of beavers being in Dolan dam or creek. This is a fast flowing stream barren of poplar trees, the main food source of beavers, so is not conducive to beaver habitat. As anyone knows beavers require slower streams with level grounds to build dams, store food, also available food to store. Mr. Smart evidently is not up to his knowledge of beavers.

The beaver story was becoming a very serious matter. Strangely, Dr. Smart's accusations were in contrast to statements by his own staff, for instance the comments from Public Health Engineer Wayne McGrath in 1975 already mentioned. In a telephone interview by this report's author with Lloyd Good in 2004, Good recalled and described how he personally confronted Dr. Smart concerning his comments about beavers in Dolan Creek at a public meeting, where he openly invited Smart at that meeting to accompany him into the Dolan watershed, and that if Smart would find a tree, or a branch, or even a twig with beaver marks on it, Good promised that he would eat it right in front of him. Good said that Dr. Smart refused to go to the Dolan watershed with him, and then Good emphatically stated to Smart that if he ever brought up the matter again, he would see fit to have the government fire him.

It was apparent to the Big Eddy Trustees that Health Officer Smart was fabricating his account about the beavers. But why would he do so? Was he pressured by someone into it? And if so, who? These are critical questions, and there may be no available answers to them now. It was clearly all tied into BC Hydro's – and therefore the Provincial Government's – liability for disturbing the Dolan Creek Watershed Reserve (while nothing was stated in any documents with the Environmental Appeal Board about the *Land Act* Watershed Map Reserve tenure, and its legislative significance),²⁰⁰ and the financial compensations provided for the Big Eddy Waterworks District during the Appeal Board review.

As part of its decision, the Environmental Appeal Board provided four final recommendations:

- (1) That rehabilitation of the watershed area be expedited by the parties responsible;*
- (2) That all of the remedial measures identified by the representatives of the Water Management Branch be completed by the earliest possible date;*
- (3) That the watershed in future be closed and secured from public access by foot, horseback, and wheeled or tracked vehicle;*

¹⁹⁹ M.R. Smart, M.D., F.R.C.P. (C), Director and Medical Health Officer, to Jack Moore, Chairman, Environmental Appeal Board, Victoria, June 15, 1983.

²⁰⁰ I.e., no references were made to the Dolan's tenure status as a Watershed Reserve in the Appeal Board's *Judgement* (Appeal No. 83/04 Wat).

(4) That the watershed be inspected annually for any indication of environmental disturbance and damage.

These were very important recommendations by the Environmental Appeal Board, the nature of which looked to the future protection of the Dolan Creek watershed. In addition, the Board decided that the final amount of \$8,000 to the Big Eddy Water District, as recommended by the Water Comptroller, should be increased to \$20,000.

Board renders decision on waterworks appeal

A decision from the Environmental Appeal Board has finally been reached on Big Eddy Waterworks' appeal submission, but not all recommendations have satisfied the chairman of the waterworks, Lloyd Good.

In the panel's recommendations, it was stated that rehabilitation of the Dolan Creek watershed area be expedited by parties responsible and that all remedial measures identified by the representatives of the water management branch be completed by the earliest possible date.

It went on to include that the watershed in future be closed and secured from public access by foot, horseback and wheeled or tracked vehicles.

It was also recommended that the watershed be inspected annually for any indication of environmental disturbance and damage.

incursion into the Dolan Creek watershed.

"The comparison clearly suggests that the water district is much better off than before and that it can reasonably expect to resume use of its Dolan Creek watershed in a relatively short period of time, if it so desires," the chairman stated.

Big Eddy Water District Chairman, Lloyd Good said he was satisfied with the recommendations but was disappointed with the amount of money for final payment.

"Sure we received more money than before but it still won't cover the cost of chlorinating our water when we switch from well water back to Dolan Creek.

"It will probably cost the water district about \$250 a month to chlorinate the water and I still believe it is a direct result of B.C. Hydro's intrusion into the watershed," Good stressed.

Reiterating his comments on the recommendations, Good said, "I just hope they are fulfilled. We've lost enough time already and I sure don't want to lose another year."



**LLOYD GOOD
BIG EDDY
WATERWORKS
CHAIRMAN**

There is another aspect related to the findings of the Environmental Appeal Board that was not understood by the Big Eddy Trustees at the time. In the early 1980s, communities in the Kootenays, who were continuing to be opposed to the provincial government issuing commercial tenure resource permits in their drinking watershed sources, demanded the government provide liability compensation for damaging their water supply sources, an issue narrated in Chapter 9. Top administrators in the BC government were therefore very concerned and sensitive about the implications of the Environmental Appeal Board Hearing regarding related issues raised in the Kootenays.