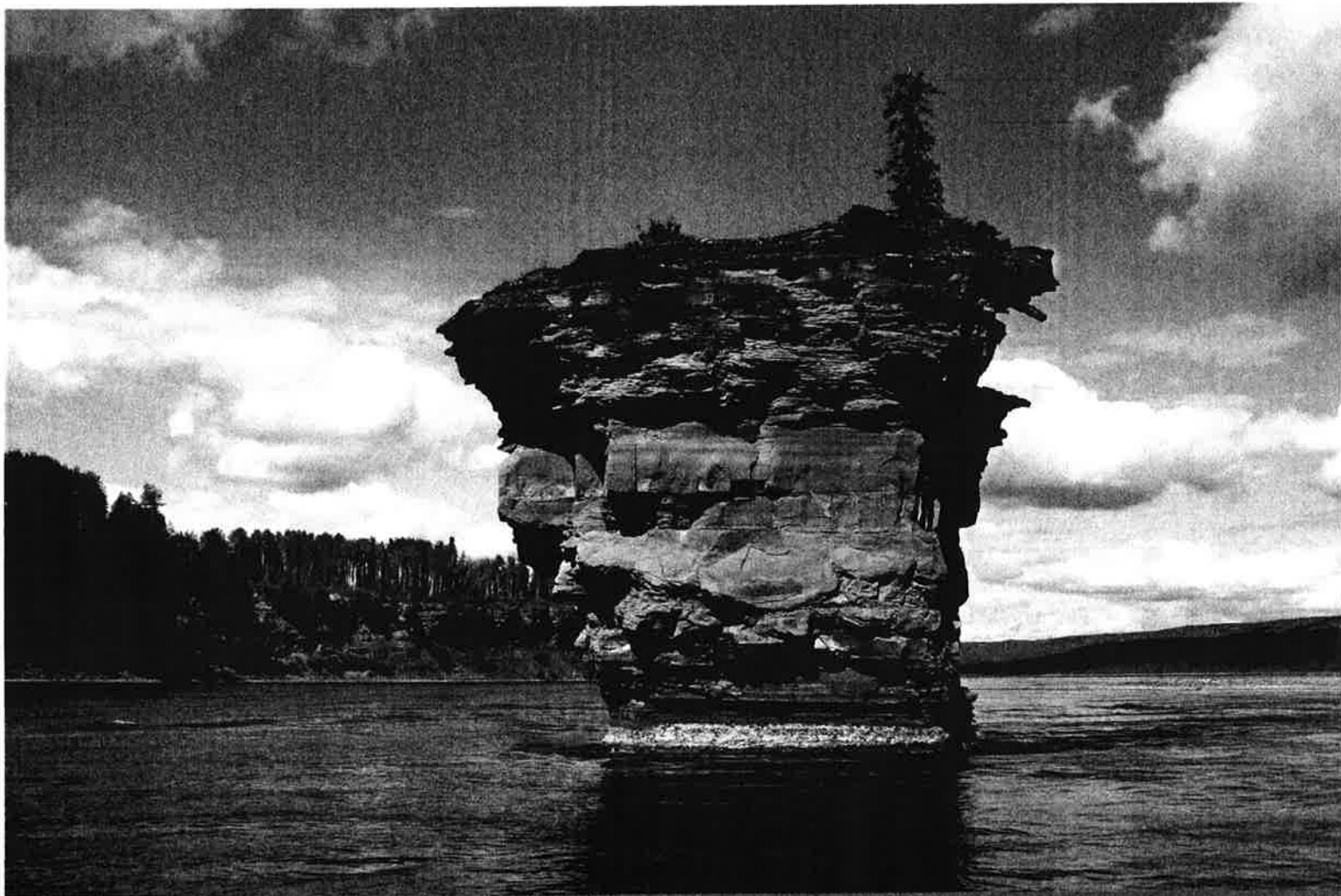


HUDSON'S  
HOPE

PLAYGROUND OF THE PEACE

# SUBMISSION TO SITE C ENVIRONMENTAL ASSESSMENT JOINT REVIEW PANEL

District of Hudson's Hope



November 25, 2013

## Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Our Home .....	1
1.2	Our Expectations .....	2
1.3	Our Position .....	2
<b>2.0</b>	<b>Our History with BC Hydro's Peace River Generating Facilities .....</b>	<b>4</b>
<b>3.0</b>	<b>Our Key Concerns Regarding Site C .....</b>	<b>6</b>
3.1	Impacts from Inundation .....	6
3.2	Impacts from Construction .....	10
3.3	Impacts from Supporting Infrastructure .....	11
3.4	Impacts over the life of the Project .....	12
<b>4.0</b>	<b>Cumulative Impacts in Our Community .....</b>	<b>14</b>
<b>5.0</b>	<b>Conclusion .....</b>	<b>16</b>

## Attachments

1. Harnessing the Peace: Economic and Environmental Themes amid Public Responses to the Construction of the Bennett Dam, 1957-1968.
2. Summary of Major Impacts (Figure 1)
3. Grants in Lieu for Hydroelectric Facilities in Hudson's Hope
4. Statutory Right-of-Way Agreement
5. Flooding at Lynx Creek Campground (Figure 2)
6. Flooding at Alwyn Holland Park (Figure 3)
7. News Article: 30 Years After Being Relocated Hudson's Hope Family Gets Power
8. Natural Resource Activity Overview Map (Figure 4)
9. Impacts to Hudson's Hope – YouTube Video
10. Hudson's Hope Site C Legacy Flyer

REVISED DECEMBER 12, 2013

## 1.0 Introduction

This submission to the Joint Review Panel outlines our community's values, principles and history as it relates to the proposed Site C Clean Energy Project. It provides an inventory of our community's key impact concerns with respect to the proposed project and highlights the unique cumulative impacts faced by Hudson's Hope.

It is expected that the information presented herein will be carefully considered by the Joint Review Panel given our community will experience significant and direct impacts from the proposed Site C project.

### 1.1 Our Home

The District of Hudson's Hope is the third oldest non-First Nation community in British Columbia. Throughout its history, Hudson's Hope has faced significant change. From its roots in trading, prospecting and agriculture to its current role in energy and resource development and beyond, the community of Hudson's Hope has learned to adapt and change to suit these conditions. Its continued presence and vibrancy is a testament to our community's resiliency in the face of a changing world. Currently, Hudson's Hope faces change again. With the ongoing development of major industrial projects in the oil and gas, renewable energy, mining sectors, and the proposed Site C Dam, Hudson's Hope is being challenged to maintain the needed services and environment that make our community unique and a great place to live.

In May of 2012, Hudson's Hope articulated three core community values, which are important to consider in the context of the Site C project and how it would impact our community. These values are summarized below.



1. The Residents of Hudson's Hope value the small town feel of the community.



2. The community's natural setting is highly valued by our residents given the recreational opportunities, aesthetic values and historical significance



3. Hudson's Hope is proud of its community and wishes to promote and assert its interests within the Region.

These values are foundational to our community's position on the Site C project and represent the basis of our submission to the Joint Review Panel.

## 1.2 Our Expectations

In addition to articulating our core community values, Hudson's Hope has prepared four (4) overarching expectations to help facilitate this submission to the Joint Review Panel. These expectations are offered to the Government of Canada, Government of British Columbia and BC Hydro for consideration during this decision-making process. By upholding each of these four expectations, our community will be better enabled to continually adapt and respond to the challenges and impacts that are likely to arise from the Site C project should it proceed. Our expectations are summarized as follows:

1. The community will be better off after Site C than before. Experience with the W.A.C. Bennett Dam and Peace Canyon Dam hydroelectric developments in our community has indicated that the local benefits have been less than predicted and the negative impacts have been greater than predicted. **Attachment 1** summarizes some of our community's experiences with these developments. We cannot let history repeat itself.
2. As many project impacts are unavoidable, community residents, property owners and businesses will be provided fair compensation for all impacts in a timely and appropriate fashion.
3. The District of Hudson's Hope will be kept whole both in the short and long term. The financial implications of the construction and operation of Site C will be borne by BC Hydro and the Province and not by existing or future taxpayers. Funding to address impacts must be adequate and assured.
4. Agencies and organizations providing services to Hudson's Hope will be assisted in maintaining services at or above current levels during and after construction of Site C.



## 1.3 Our Position

As a community, Hudson's Hope has long considered the significance of the proposed Site C project. We have used recent planning activities to engage residents in discussions about the project, we have participated in a number of regional local government discussions on the topic of Site C and we have previously submitted our community's perspectives and concerns about the project to the Canadian Environmental Assessment Agency and BC Environmental Assessment Office.



If constructed, the development of the Site C dam and reservoir will have major impacts on the community of Hudson's Hope. The impacts on Hudson's Hope are proportionally greater than on any other community due to the proximity of the development to the community, the extent to which the reservoir would impact lands within the municipal boundary and the population of the community. Consider that approximately 20% of the new reservoir will be within municipal boundaries if constructed.

BC Hydro, in its Site C Environmental Impact Statement (EIS), has gone to considerable lengths to identify and quantify the impacts of the project. However the approach taken in the EIS is to describe impacts in relation to a larger region. This has the effect of downplaying the impact and, particularly, downplaying the impact on Hudson's Hope, specifically. Therefore where the EIS may describe an impact as not significant in the context of the larger region, the impact can in fact be very significant for Hudson's Hope. For these reasons Hudson's Hope finds it necessary to identify and describe impacts in the local context and to require BC Hydro and the Province to address these impacts with mitigation and compensation that offsets these local impacts.

Based on a review of the Site C EIS, Hudson's Hope believes that the project will have a diversity of *significant* and *unavoidable* impacts to our community. While some preliminary impact mitigation measures have been identified, the unavoidable direct and indirect impacts that are to arise from the Project will adversely impact the quality of life of the residents of our community. This can be concluded as Hudson's Hope has identified fourteen (14) major direct impacts to the community. These impacts are summarized in Figure 1 (see **Attachment 2**) and further characterized throughout this submission.

In addition to the 14 direct impacts summarized in Figure 1, Hudson's Hope has experienced a diversity of historical impacts from the two other large reservoir hydroelectric projects in our community and will experience a number of social, economic and environmental cumulative impacts from the development and operation of Site C and other industrial activities in our community.

Regardless of the pressures Hudson's Hope may face, sustainability is key to the community's long term viability and success. We ask that in its deliberations, the Panel apply the sustainability framework outlined in hearing document #1644 to its assessment of this project. Moving forward, our community understands the need to position and prepare itself for change in a way that meets the needs of the current community and the expectations of future generations. Since the majority of impacts that are to arise from Site C cannot be effectively mitigated - given the scope and scale of the project - Hudson's Hope must be fairly compensated by the proponent. This compensation must acknowledge the immediate, short, medium and long term impacts of the project should it be developed. This compensation will be re-invested into the community to protect and enhance the quality of life for our residents and forthcoming generations. An effective process must be established through which any commitments to mitigation and/or compensation would be monitored and enforced throughout the life of the project.

## 2.0 Our History with BC Hydro's Peace River Generating Facilities

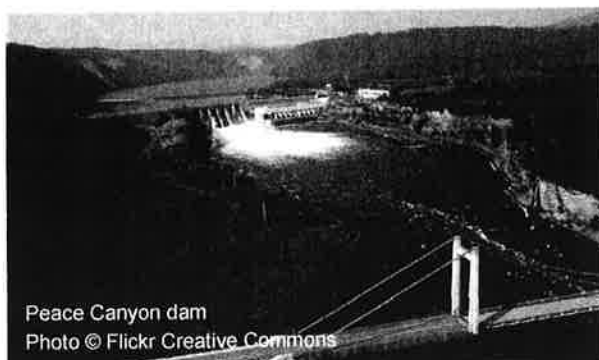
As a community, Hudson's Hope has been grappling with the historical impacts of hydroelectric development since the early 1960s. This is because the District of Hudson's Hope is home to BC Hydro's Peace River generation facilities, including the W.A.C. Bennett Dam, GM Shrum Generating station, Peace Canyon Dam and Generating Station, and Dinosaur Reservoir. As well the Williston Reservoir has a significant presence within our municipal boundaries. These are the "back-bone" facilities of the provincial hydroelectric system, and collectively provide fully one third of British Columbia's electricity, as well as most of the hydroelectric storage which leverages the efficiency of the entire system. With the development of these generating assets, Hudson's Hope has long been the most heavily impacted jurisdiction within the Peace River region with respect to hydroelectric development. Hudson's Hope has never fully recovered from the disruption to the community that took place during the construction and now operation of these facilities. If constructed, the Site C project would represent the third mega hydroelectric facility to significantly impact Hudson's Hope within the past fifty years.

As a community we understand the experiences associated with the construction cycle of a large hydroelectric facility. For example, the construction of the W.A.C. Bennett Dam took approximately five years and employed more than 4,800 people at its peak. The initial influx of workers to the community, raised the population in 1966 to 5,500 leading to increased demand for services and increased competition for local finite resources. Similar experiences came with the Peace Canyon Dam.

The demands of construction created significant stresses to the provision of community services and the needs of the community were simply underfunded. Upon completion of the construction of the W.A.C. Bennett Dam and Peace Canyon Dam and associated facilities, the community struggled with the consequences of a boom and bust economic cycle and supporting the ongoing needs of a small permanent population, the core of our community. For example, there have been dramatic influences within our local population numbers, employment rates, land values, housing needs, community services, and infrastructure requirements. This has made it extremely challenging to plan for and deliver the services needed to sustain a high quality of life in our community.

From an environmental perspective, the existing facilities have sterilized hundreds of hectares of land and natural water ways within Hudson's Hope's through inundation and the destabilization of our community's shorelines. Additionally, evidence suggests that certain fish species in the Williston Reservoir are unsafe for human consumption given bioaccumulation of mercury. The source of mercury has been traced to the inundated trees standing prior to the 70,000-square-kilometre Williston watershed being flooded in 1966. While not documented to the same extent, both of these projects resulted in very similar impacts to those detailed in BC Hydro's recently submitted 16,000 page EIS for Site C.

Despite experiencing a long history of impacts from past hydroelectric development, Hudson's Hope has received little in the way of social, environmental, or economic benefits. The existing generating facilities represent the primary industrial base of Hudson's Hope, yet they are not taxable. If taxable by "normal standards", they would produce revenue for the District in the order of \$28 million a year. However, BC Hydro generating facilities are exempt from taxation and instead provide Grant-in-Lieu allocated by an Order-in-Council. The current policy for Grant-in-Lieu allocation is unsatisfactory for Hudson's Hope. A separate document (see **Attachment 3**) has been submitted to the Joint Review Panel on the topic of Grant-in-Lieu.



The restricted tax base and unsatisfactory Grant-in-Lieu policy have been major contributors to an infrastructure deficit in the community. Current community infrastructure challenges include water supply and treatment, water and sewer main replacement, asphalt rehabilitation, and other infrastructure deficiencies that are affecting quality of life in our community.

The history of the Site C project in our community is long-standing. Our community started to feel the impact of the project in 1974, with BC Hydro's first (informal) passive land acquisition in the area. As a result of its "Passive Property Acquisition Program" (formal), BC Hydro has acquired much of the fee simple land it needs to advance the Site C project.

According to the BC Assessment Roll, BC Hydro owned 99 properties within the District of Hudson's Hope at the beginning of 2013. Of those, 68 properties, comprised of 338.8 acres (137.1 hectares) was acquired for Site C through the passive property acquisition program. We understand that BC Hydro has added more property in the past year and is currently negotiating for additional properties within the District, some of them very large land tracts. Some in our community have suggested this has corporatized our land base and evidence suggests that these land purchases have deteriorated the value of property in the community and stagnated our community's growth for over 35 years.



## 3.0 Our Key Concerns Regarding Site C

The continued alteration of the Peace River Valley into a reservoir, the substantial activity during the construction phase, as well as the ongoing management of the Site C operations will have substantial impacts on the community of Hudson's Hope. In our community, the project is expected to affect all five aspects under consideration by the Joint Review Panel: Environmental, Economic, Health, Social and Heritage. More so, Hudson's Hope will bear significant impacts during construction, and will be the only community to endure negative long-term and permanent impacts in perpetuity due to inundation.

Below you will find a summary of the impacts on Hudson's Hope as a result of the Site C development, as well as a brief discussion on the cumulative impacts from the ongoing and future industrial activity in close proximity to our community.

This section of our submission has been organized by the key project components that are to drive the majority of impacts on Hudson's Hope, and the resultant impacts expected in our community.

### 3.1 Impacts from Inundation

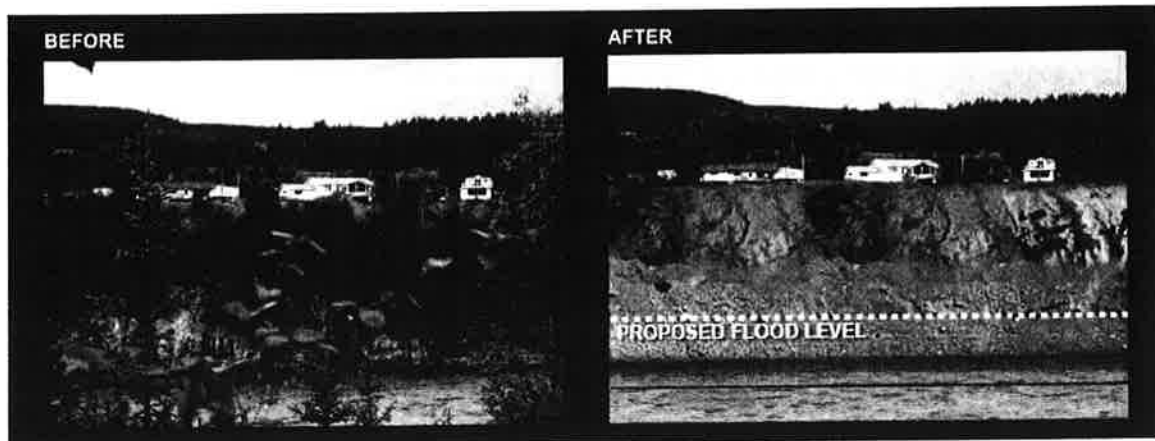
Approximately 20% of the new reservoir would be within municipal boundaries. BC Hydro has provided estimates of the impacts to land within the District of Hudson's Hope, including: loss to flooding (603 hectares/1490 acres), loss to highway realignment (66 hectares/163 acres), and loss to the statutory right of way (1037 hectares/2562 acres). ***In total, our community will lose approximately 1700 hectares/4200 acres of land due to the reservoir requirements.*** This has widespread, multi-faceted implications which we have summarized below.

- **Loss of prime real estate:** Over 68 properties, totally over 338.8 acres (137.1 hectares) of land within the District has or will be lost to BC Hydro acquisition. Many of these properties were serviced lots and/or prime real estate with waterfront access or valley views. Since their purchase, many of the homes have been demolished and none of these properties will ever be put back into the market should the project proceed. Furthermore, impact lines will encroach on many properties located along the new reservoir, restricting the usable depth of these properties, potentially requiring relocation for some residents, and limiting opportunities for future development.<sup>1</sup> The loss of land availability and use has and will have a significant impact on real estate supply and values, population growth rates, the quality of life for our current residents, and the attractiveness of our community. Many of these properties were/are many acres in size and would have been suitable for subdivision development and other community purposes.

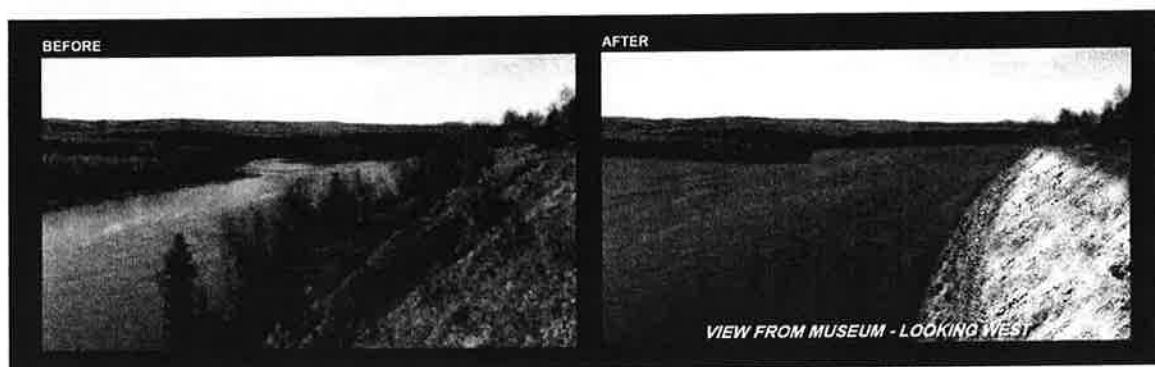
---

<sup>1</sup> EIS Section 11.2.3.12.1 states that no new residential structures would be permitted nor would existing residences be allowed to remain. Non-residential structures could only remain pending a geo-technical study. See also **Attachment 4** (Existing Statutory Right of Way agreement placed on land within the proposed Site C reservoir).





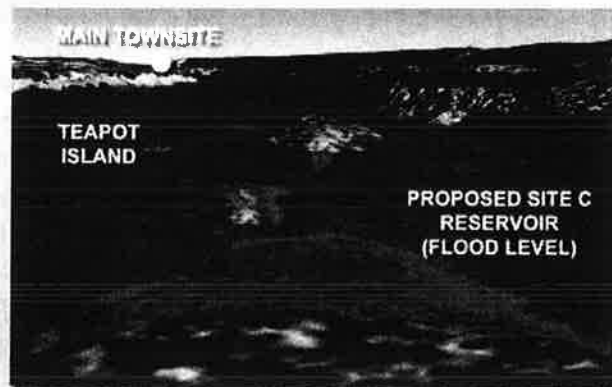
- **Municipal finances:** Similarly, the District of Hudson's Hope is foregoing significant potential property tax revenues due to the permanent loss of residential and commercial properties, as well as BC Hydro's property tax exemption. This is not being fairly compensated through the current Grant-in-Lieu program.
- **Agricultural and environmental value:** The Peace Valley is home to a diversity of agricultural activities; providing our community a local food supply, economic diversity and community security. Our local agricultural sector represents an important component of our local economy and heritage. The viability of our sector is at risk due to inundation and industrialization of the land base by other development, such as massive shale gas development, pipelines and mining.



Hudson's Hope also concedes that there will be significant loss of wildlife and habitat resulting from Site C. These losses are extensively detailed in the EIS. While the impacts and losses to the natural environment are well documented, it is important to acknowledge that our community's relationship with the land base and nature is critical to our community's well-being and identity. For many generations, Hudson's Hope has been home to several guide outfitter operations. We value the stability of this industry and their contribution to our economy. Similarly, trapping provides significant main and supplemental income for many of our long-time residents. These are longstanding activities which have survived for generations and, if stewarded, could sustain local residents far into the

future. Therefore, it is important for the Joint Review Panel to consider the relationship between community (Hudson's Hope and region) and the natural environment.

- Historical and archaeological sites:** Rocky Mountain Portage House, on the south side of the Peace River across the river from Hudson's Hope, was established in 1804. While it is currently formally unrecognized as a heritage resource, this site does bear significant historical value in British Columbia and Canada as the first trading post established in what is now British Columbia. The Peace River was also a route travelled by many great northern explorers such as Alexander Mackenzie (1793), David Thompson (1804), Simon Fraser (1805) and James Murray Yale, later the Hudson's Bay Factor at Fort Langley, testify to the importance of this river and valley in the earliest days of European exploration. This rich history is being celebrated by our local historical society and museum. We wish to support their efforts to communicate stories of our past and attract visitors. The flooding will most certainly impact and potentially threaten these heritage treasures.
- Community values:** The conversion from a picturesque river valley to a reservoir regime has and will continue to greatly affect the wellbeing and sustainability of our community. We pride ourselves on the natural beauty of our landscape – which attracts both community members and tourists – and our core values as a community reflect the sanctity of this resource.
- Visual landscape change:** The reservoir will permanently alter the visual landscape of the river valley, with particularly poignant effects on Alwin Holland Park. This park is named after the first teacher to come to Hudson's Hope. Alwin Holland Park is the most popular and photographed park in the entire Peace Region, and it will be partially flooded. Significant landmarks, such as Teapot Island and the Shale Islands, will suddenly and permanently lose their appeal.
- Recreation:** The creation of the reservoir would result in changing the recreation and lifestyle opportunities in our region. This may include, but is certainly not limited to, loss of recreational activities, such as fishing, boating, camping, hunting and wildlife viewing, and loss of facilities,

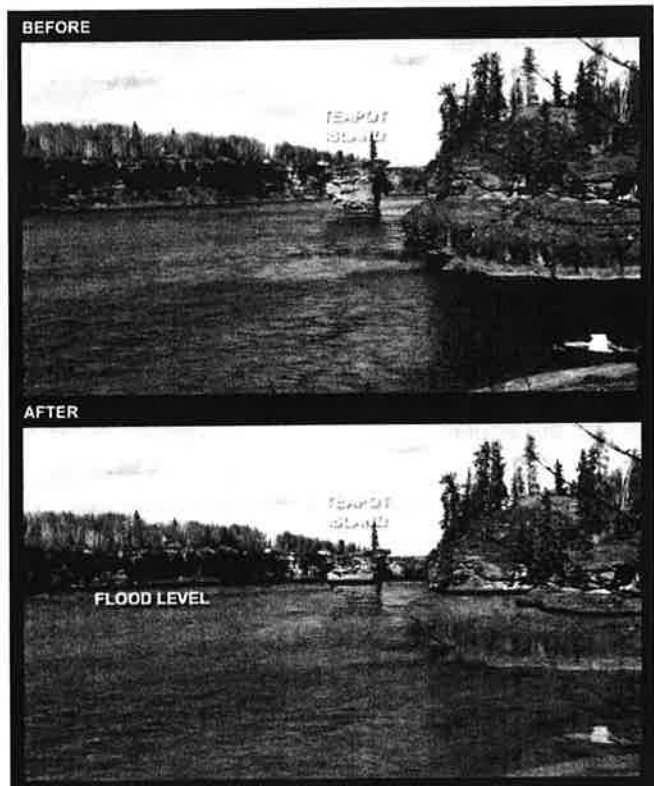


such as RV parks, boat launches and river access. For example, the Lynx Creek Campground and Boat Launch - a scenic and active campground and RV park - will be completely flooded. The removal of only a portion of timber prior to flooding will result in deadhead problems and more 'snags' for fishing. This will compromise the safety, enjoyment and marketability of the new reservoir.

- **Community infrastructure:** According to the Site C EIS, the inundation area will have a direct and significant impact on the District's civic infrastructure. More specifically, "With the filling of the Site C reservoir, the Hudson's Hope water intake, pumping station, and treatment plant would be inundated, and would need to be rebuilt in a new location. There could also be potential effects on the sewage settling ponds due to bank erosion, or due to a change in groundwater conditions at the time of reservoir filling. The Hudson's Hope shoreline protection would be designed to address the potential for erosion at this site."

Additionally, the inundation area will:

- Impact Riverside trails and views of Tea Pot Islands;
- Flood the D. A. Thomas Boat Launch for a three to four year period;
- Require the relocation of over eight kilometres of Highway 29 located within municipal boundaries and additional 22 kilometers outside municipal boundaries;
- Flood the Lynx Creek subdivision now owned by BC Hydro;
- Necessitate the construction of a large berm to protect Hudson's Hope townsite from future sloughing and erosion. The magnitude of the berm and the construction process should be appreciated. The berm will be 12 to 14 metres high, approximately 7 meters wide and will extend over 2.5 kilometres along the reservoir shoreline. Approximately nine hectares of land will need to be cleared and grubbed. Approximately 440,000 cubic metres of material will need to be excavated on site or hauled from the Portage Mountain pit for the construction.



See **Attachment 5** and **Attachment 6** for additional maps and illustrations of the impacts described above.

### 3.2 Impacts from Construction

The construction phase for Site C will become a story of dichotomous impacts. For example, it will undoubtedly create short-term positive employment and contracting opportunities for community and local and regional businesses. At the same time, we can expect an influx of transient workers with little-to-no vested interest in the community, who will stress our community's ability to deliver a high-level of service.

Our community's core concerns with respect to impacts from construction are summarized as follows:

- **Local workforce:** On average, BC Hydro estimates it will require 800 employees per year for Site C construction, with a peak of 1,700-2,100 in year five. Whereas the majority of the construction workforce will be required from the Fort St John-Taylor area to construct the dam and generating station, there are several opportunities to engage the local workforce in the Highway 29 realignment, general road works, clearing, construction material transport, transmission line construction, and berm construction. This demand may create a re-distribution of labour that could negatively impact local businesses. Citizens who do engage will likely benefit from the access to training and skills development.
- **Transient workers & accommodations:** With 90% of the construction workforce coming from outside of Hudson's Hope, there will undoubtedly be an impact on community development and sustainability. Hudson's Hope is interested in attracting and retaining workers and their families, with a desire to see new workers become permanent residents, rather than promoting more transient workers in camps (as is currently planned). However, to accommodate this growth more family housing is needed, civic infrastructure needs to be upgraded, and more supportive policies, programs and services will need to be put in place. The current plan to house employees in large temporary camps throughout construction do not align with these interests and will likely not contribute to our community's long-term wellbeing.
- **Local Business Opportunities:** There will inevitably be increased purchases and support for local businesses that can serve the construction workforce, which can be both a benefit and a burden. Additionally, with the correct communications and capacity building, local businesses may have the opportunity to bid on construction and ancillary contracts relating to the dam, reservoir clearing, transmission line and shoreline berm. However, these opportunities are not available to all businesses. Certain industries, such as recreation, tourism, guiding, trapping, forestry and agriculture, will experience adverse effects in the short and long-term due to construction and land losses. This does not align with the communities values in created a vibrant, diverse and sustainable economy.
- **Major haul routes:** Canyon Drive, Clark Avenue and Beattie Drive (Highway 29) will be used as major haul routes for riprap, road construction aggregate, and bridge materials during construction. These haul routes bisect the main townsite and are a safety concern for drivers and pedestrians. Additionally, heavy hauling will cause deterioration of the road beds and surfaces and the increased

traffic levels will cause noise, dust and other disturbances. Many of our local residents have expressed concerns about these impacts.

- **Health, social & protective services:** Construction activity will increase the demand for services provided by the municipality, businesses and our citizens, including medical, recreation, policing, and ambulance services. As such, BC Hydro's workforce would directly increase the demand for resources, while also potentially compromising services for our own citizens. For example, local emergency service providers may be called upon to complement the emergency services provided by BC Hydro in response to an extreme incident at the construction site. Such a scenario would reduce the essential service levels available to the community. Additionally, it is unclear how BC Hydro will contribute to the community's emergency services capacity and meet the demands of an increased population base within Hudson's Hope during the construction period of the proposed project.
- **Cultural and Heritage service:** Many local churches in Hudson's Hope are located along Highway 29. Given that the Highway will experience significant usage and impacts during construction, it is expected that the community's churches will also face disruptions and a number of impacts.

### 3.3 Impacts from Supporting Infrastructure

The District of Hudson's Hope will inherit new infrastructure developed in support of the construction and ongoing management of Site C. This new infrastructure includes, but is not limited to:

- Development of both temporary and permanent access roads and bridges;
- Expansion of transmission lines;
- Realignment and reconstruction of 8 km of Highway 29 within municipal boundaries, due to flooding
- Extraction from local quarry sites; and
- Creation of a 2.5 kilometers long, 7 meters wide and 12-14 meter high berm.

Of particular concern to the residents of Hudson's Hope is the rip-rap berm. To protect Hudson's Hope townsites from future sloughing and erosion, it is proposed that BC Hydro would build a substantial berm along the shoreline of the Peace River. To gain appreciation of the scale of the operation, approximately 9 hectares of land will need to be cleared and grubbed. Roughly 440,000 cubic metres of material will need to be excavated on site or hauled from the Portage Mountain pit for the construction. The sheer size of the berm would permanently alter what is left of the prized valley views, for residents and tourists.

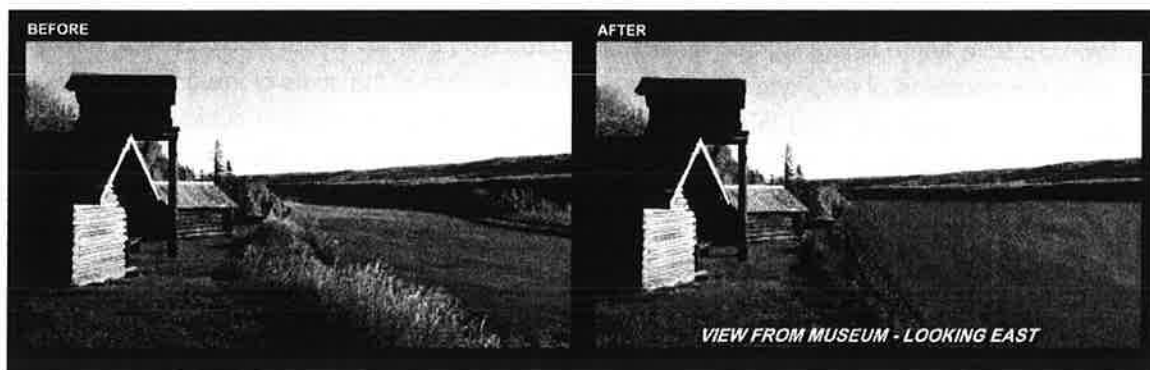
The development of this infrastructure and the site restoration of temporary infrastructure (i.e., access roads, quarries, clearings, etc.) will have permanent impacts on our wilderness areas. For example, the present shoreline serves as a corridor for larger wildlife passing by the community, and as birthing, nurturing and wintering habitat for fox, rabbit, deer, and other wild creatures. The community will also experience impacts to the visual landscape, land availability and use, public health and safety, the established and focused expansion of the tourism industry and recreation activities, to name a few. Our residents will be the long-term recipients of these projects and have a significant interest in their design, construction, maintenance, and long-term impacts.

### 3.4 Impacts over the life of the Project

Based on our historical relationship with the W.A.C. Bennett and Peace Canyon dams, the impacts of these developments continue far beyond the construction phase. As previously mentioned, ***our community will be the only one left to experience the long-term and permanent effects of BC Hydro's Site C project.***

Potential impacts that the residents of Hudson's Hope will likely address in the lifespan of the project include:

- Economic development:** The construction of Site C would bring short-term economic benefits, in the way of employment and contracting opportunities, as well as spin-off benefits to local businesses; however, the vitality of our community depends on the sustainability of our economy. We need to ensure that we will be better off than we were before, and that we do not instead find ourselves in a post-construction slump. Similarly, the long-term negative impacts of Site C on our communities' health, socio-economics, environment, and heritage will prevent other economic opportunities that could otherwise contribute to the growth, development, diversity, well-being and identity of our community. The loss of land precludes several opportunities in forestry, agriculture, tourism, and real estate. In addition, there are resounding impacts on the attractiveness of our community which would foreclose further opportunities to pursue economic diversity. We have attached a news article that discusses our historical economic impacts experiences with the W.A.C Bennett Dam in **Attachment 7**. Our community anticipates similar experiences with Site C, should it be developed.
- Reservoir impacts:** Shoreline erosion due to previous hydroelectric projects in our region has been an ongoing concern, and we can only expect that this will be intensified with the development of a third dam. Fluctuating levels of water in the reservoir, as well as debris management and sloughing, will have impacts on the visual landscape, the recreational opportunities, and the habitats of both wildlife and fish.



- **Restoration and decommissioning:** While the lifespan of Site C is likely greater than 100 years, the decommissioning process will need to be taken into consideration if we are to ensure the sustainability of our community. Additionally, there are more immediate concerns with the restoration of support sites, such as quarries, construction sites, and access roads.

In addition to the concerns and impacts highlighted above, there are a range of physical impacts which will occur but which are not fully understood based on studies done in advance of the project. These impacts are likely to include: groundwater impacts, microclimate effects, wind velocity changes, precipitation, fog and visibility, air quality and dust, reservoir ice regime, visual effects, noise, impacts on traffic and transportation, wildlife dislocation and loss of heritage resources.



## 4.0 Cumulative Impacts in Our Community

As described above, the District of Hudson's Hope has experienced widespread historical changes and impacts due to the convergence of industrial interests on the same land base. Much of the natural landscape has already been changed by logging, mining, oil and gas development (conventional and non-conventional), pipelines, water withdrawals and stream crossings, large-scale hydro development (i.e., W.A.C. Bennett and Peace Canyon), transmission line construction, agricultural conversion and other industrial developments. The resulting environmental, social and economic cumulative impacts of the existing footprint from natural resource extraction and industrial development to our community remains poorly understood.

In addition to the proposed Site C project, Hudson's Hope is likely to see the development of several other large scale resource development and industrial projects in the near term. Based on a review of the BC Major Projects Inventory, it is evident that there are many major projects slated to be developed. For illustrative purposes, the projects that are likely to have the most significant influence on the well-being of our community are highlighted in Figure 4 (**Attachment 8**). It is important to note that Figure 4 excludes known projects that are smaller and therefore not included in the Major Projects Inventory and those projects that have yet to be announced and are contingent on favourable market conditions. Also Figure 4 does not highlight the sub-surface oil and gas tenures that have been distributed to the private sector, which are likely to be developed. It is understood that the sub-surface oil and gas rights have been leased under all of the municipality except for a number of our community's subdivisions including Lynx Creek, Thompson, Jamieson, and Beryl Prairie. The social, economic and environmental impacts of oil and gas development in our community is not well understood, especially in the context of the known impacts of the proposed Site C project.

Recognizing the above and based on the review of the current EIS, Hudson's Hope is of the opinion that the cumulative impact assessment methodology used by the proponent is insufficient to adequately understand and respond to the diverse cumulative impacts that are likely to occur in a region experiencing significant growth. More specifically, the District is of the opinion that the proponent has not sufficiently considered the:

- Historical impacts of natural resource and industrial development in the baseline;
- Impacts of the Site C project in relation to the impacts of existing major projects;
- Impacts of the Site C project in relation to known major projects to be developed;
- Impacts of the Site C project in relation to likely development scenarios (i.e. future developments that have yet to be officially inventoried, but have a high probability of being developed in the future);
- Mitigation and Compensation strategies to address local and regional cumulative environmental impacts such as losses of lands, aquatic and terrestrial habitat quality, quantity and connectivity, air quality, etc.;
- Mitigation and Compensation strategies to address local and regional cumulative economic impacts such as regionalized inflation, affordable housing, access to affordable services, labour, etc.; and



- Mitigation and Compensation strategies to address local and regional cumulative social impacts such as housing availability, labour force opportunities, community and family cohesion, loss of and potential creation of recreational opportunities, access to essential services (i.e. health care and education), substance abuse challenges, etc.

Given the importance of the issues identified above to our community's wellbeing, Hudson's Hope is of the opinion that the cumulative impacts associated with local and regional development activities (large and small) must be given greater consideration when evaluating Site C. To address the identified gaps, the District feels that the proponent and government agencies are responsible and accountable to further assess, mitigate and compensate for the cumulative impacts as it relates to the:

- Required upgrades in civic infrastructure to support a healthy community in Hudson's Hope;
- Additional demands and costs for social and community services (i.e. health care, policing, fire protection, and education) required to meet the projected population changes;
- Loss of recreational opportunities for the residents of Hudson's Hope;
- Potential changes to local and regional housing markets and issues of accessibility and affordability; and,
- Cumulative impacts to the community resulting from the Passive Land Acquisition Policy.



## 5.0 Conclusion

As described in this submission to the Joint Review Panel, Hudson's Hope has experienced an assortment of historical impacts from the existing hydroelectric projects in our community, and we foresee a diversity of social, economic and environmental direct and cumulative impacts that are unavoidable from the impending development of the Site C project, and other industrial activities in our community. For your convenience, we have also summarized our key concerns and the impacts to our community in a short video (see **Attachment 9**).



We welcome economic development in the District of Hudson's Hope although the development must align with our community values and identity: our values and identity being rooted in a naturalist and respectful relationship to the land we live in. This relationship has influenced the social dynamics of our community. We welcome new residents, more so on a permanent basis. We want growth to remain and flourish in District of Hudson's Hope after the construction of the facility, should it occur. We want to express and share our values and to use this development, should it proceed, as an opportunity to build and grow our community. However, it must respect *our* values, to maintain *our* identity and well-being. Sadly, cumulative effects have steadily eroded the land and with it our long-standing relationship to our natural environment continues to erode. In spite of this, we believe that together, we can assist BC Hydro in helping us, in stopping this erosion, to save and maintain what is left of our (*land*), community values and identity.



Moving forward, our community understands the need to position and prepare itself for change in a way that meets the needs of the current community and the expectations of future generations.

Since the majority of impacts that are likely to arise from Site C cannot be effectively mitigated - given the scope and scale of the Project - Hudson's Hope must be fairly compensated by the proponent, should they receive authorization to proceed. This compensation must acknowledge the immediate, short, medium and long term impacts of the Project should it be developed. This compensation should come in the form of an:

- **Adjustment Fund:** that will provide compensation to the District, businesses and individuals who can quantify impacts not anticipated at the time of Site C planning;
- **Land Leasing Agreement:** that is specific to the District of Hudson's Hope and BC Hydro. This agreement would see BC Hydro lease impacted lands within the municipal boundary and provide a revenue source to the District to ensure the community can grow and prosper and provide a quality of life for residents that is better after the project than prior;
- **Adjustment Payment for Foregone Opportunities:** that compensates the District for the lost economic development opportunities that would have otherwise occurred in the community; and,
- **Grant-in-Lieu of taxes for the Site C reservoir:** that reflects the extent of the impact on the community and is calculated on the same scale as for other local governments in the Province.

For each proposal, it will be important to have a formalized impact mitigation and compensation oversight framework in place to ensure BC Hydro and all other parties are held accountable over the long-term. The compensation that is received must and will be re-invested into the community to protect and enhance the quality of life for our residents and forthcoming generations.



## Attachments

1. Harnessing the Peace: Economic and Environmental Themes amid Public Responses to the Construction of the Bennett Dam, 1957-1968.
2. Summary of Major Impacts (Figure 1)
3. Grants in Lieu for Hydroelectric Facilities in Hudson's Hope
4. Statutory Right-of-Way Agreement
5. Flooding at Lynx Creek Campground (Figure 2)
6. Flooding at Alwyn Holland Park (Figure 3)
7. News Article: 30 Years After Being Relocated Hudson's Hope Family Gets Power
8. Natural Resource Activity Overview Map (Figure 4)
9. Impacts to Hudson's Hope – YouTube Video
10. Hudson's Hope Site C Legacy Flyer

empathy, intentional forgiveness, and Sacred Conversation in relieving unavoidable suffering. Systematic, quantitative, and qualitative studies investigating the role of Sacred Conversation will bring greater understanding to how the approach enhances an individual's ability to create transcendent meaning from suffering and bring relief to physical and psychological pain. Survey research delineating the nature of this approach, along with experimental research measuring outcomes of the approach with regard to curative effects in anxiety, depression, stress, anger, and immunodeficiency levels are warranted. Phenomenological studies revealing the meaning of the approach for individuals and families are also warranted. Such studies will provide an important bridge toward clinical discernment with regard to suffering, emotion, and transcendent meaning.

#### IDEAS FOR FURTHER STUDY

1. Think about the precise way in which you might wish to recap the argument in your paper, especially with regard to limiting expressions and markers of obviousness. Also think about employing other rhetorical features typically found in academic conclusions, such as exploring solutions to a problem, statements of relevance, and questions for further research.
2. Identify the rhetorical features in the conclusion to the article that follows.

#### CHAPTER REFERENCES

- Bishop, W. (2003). Suddenly sexy: Creative non-fiction rear-ends composition. *College English*, 65(3), 257-275.
- Castleden, H. (2002). The silent north: A case study on deafness in a Dene community. *Canadian Journal of Native Education*, 26(2), 152-168.
- Davis, A. (1998). A study in modernism: The Group of Seven as an unexpectedly typical case. *Journal of Canadian Studies*, 33(1), 108-121.
- Del Mar, D.P. (1998). Pimping and courtship: A 1940 court case from northern British Columbia. In R. Sandwell (Ed.), *Beyond city limits: Rural history in British Columbia* (pp. 212-224). Vancouver, BC: UBC Press.
- Ferch, S.R., & Ramsey, M.I. (2003). Sacred conversation: A spiritual response to unavoidable suffering. *Canadian Journal of Counselling*, 37(1), 16-27.

- Fetveit, A. (1999). Reality TV in the digital era: A paradox in visual culture? *Media, Culture & Society*, 21, 787-804.
- Giltrow, J. (2002). *Academic writing: Writing and reading in the disciplines*. 3rd ed. Peterborough: Broadview Press.
- Orsini, M. (2002). The politics of naming, blaming and claiming: HIV, Hepatitis C and the emergence of blood activism in Canada. *Canadian Journal of Political Science*, 35(3), 475-498.
- Theberge, J.B. (1991). Ecological classification, status, and management of the Gray Wolf, *Canis lupus*, in Canada. *The Canadian Field-Naturalist*, 105(4), 1-5.

#### INTRODUCTION TO THE READINGS

The paper by Laurie Dressler presents another outstanding example of student research, involving work in the archives of a local museum.

#### LAURIE DRESSLER

##### **Harnessing the Peace: Economic and Environmental Themes Amid Public Responses to the Construction of the Bennett Dam, 1957-1968**

If there is one thing that is of basic importance to the development of British Columbia, it is the development of the rich resources of the northern and central regions of the Province. The Peace River particularly is one of the areas in Canada most ripe for development...

—W.A.C. Bennett<sup>1</sup>

1 The W.A.C. Bennett Dam (Bennett Dam) is located on the Peace River near Hudson's Hope, B.C. Construction of the dam commenced in April 1962 and was completed by December 1967; however, planning for the hydro-electric project began in the 1950s. In 1954, then Premier of B.C., W.A.C. Bennett, who held office from 1952 to 1972, first described his "Northern Vision."<sup>2</sup> At this time, Premier Bennett announced his plans for a \$400 million hydro-electric project in the Rocky Mountain Trench, which would produce enough power to fulfill future demands in southern B.C. This project was to "bring untold wealth and prosperity to the region."<sup>3</sup> Behind the dam would lie an enormous reservoir, which would flood more than 177,300 hectares of wilderness land.<sup>4</sup>

2 This essay examines economic and environmental themes amid public responses to the building of the Bennett Dam, near Hudson's Hope, during the period 1957 to 1968. First, I will describe public responses from 1957 to 1963, when the project was announced and construction of the dam began. Second, I will address public responses from 1964 to 1968, when the construction phase neared completion and operation began. I will show that initial public responses to the building of the Bennett Dam emphasized a desire for industrial and financial growth; however, as the dam neared completion, public responses became focused on long-term economic and environmental issues.

#### Methods

3 The information gathered to describe public responses to the building of the Bennett Dam is taken from articles and editorial comments in the *Alaska Highway News*, Fort St. John, from 1957 to 1968. The North Peace Museum maintains a catalogued archive of the newspapers from March 16, 1944 to December 24, 1975. Articles pertaining to the dam are recorded in the catalogue; however, editorial comments and Letters to the Editor are not. Thus, in order to ensure the thoroughness of my own research, it was necessary to review each of the *Alaska Highway News* weekly publications, page by page, between 1957 and 1968. The back issues of the newspapers have been kept in very good condition in cardboard boxes, one year per box, and shelved according to the year of publication. Further responses by local residents are taken from Earl K. Pollon and Shirlee Smith Matheson's *This Was Our Valley*, a historical account of the people, environment, and economics of the area affected by the dam and its reservoir. I will also be drawing information from the *Fort Chipewyan Way of Life Study*, which addresses the impact on economic and environmental issues downstream of the dam on the Peace-Athabasca Delta, once the waterflow of the Peace River was reduced.

#### Public Responses to the Bennett Dam (1957-1963)

4 In 1957, Premier Bennett described to a Vancouver audience his plans for a hydro-electric dam on the Peace River, making B.C. the greatest manufacturing province because of its cheap and abundant power supply. The dam would create a reservoir that would provide opportunity for recreation, improve navigation on the Mackenzie water

routes, and would possibly change the northern B.C. climate.<sup>5</sup> When Premier Bennett spoke to a large audience in Fort St. John nearly a year later, he stated that the development of the dam would "bring untold wealth and prosperity to this region."<sup>6</sup> In a recent interview, Mary Humphries, long-time resident of the Hudson's Hope and Fort St. John areas, recalls an affirmative response to the Premier's message. According to Humphries, the people of the area looked to industry to provide security for their businesses and livelihoods, hoping that new industry in the area would diversify the economy and secure future development. However, Humphries also suggests that while people looked for immediate growth in their communities, they were not looking beyond the completion of the dam.<sup>7</sup>

5 Nevertheless, public responses in the *Alaska Highway News* did indicate some long-term environmental concerns. H.L. Briggs, manager of the B.C. Power Commission, issued public statements regarding the Premier's handling of the province's affairs. Mr. Briggs denounced the government's stewardship of the province and attacked Bennett's integrity.<sup>8</sup> Furthermore, Briggs commented on the signing of a pact between Premier Bennett and Wenner-Gren, a Swedish financier, to conduct surveys and begin planning for the hydro-electric project on the Peace River. Briggs accused the Premier of "robbing the generations unborn"<sup>9</sup> by signing the pact with the Wenner-Gren group. He suggested that the government had committed natural resources in the area to be flooded by the reservoir before the public had a chance to realize the value of such a commitment. Mr. Briggs wanted to reach out to the people who would be directly affected by the proposed dam, those who were not able to follow the developing controversy in the provincial capital, except through news media.<sup>10</sup> Similarly, mineral economist Desmond Kidd suggested that developing the energy, timber, and mineral resources of the north was not as important as developing power and selling it to southern B.C. Kidd was critical of the Wenner-Gren pact because he feared that the province might commit an error that would be regretted for many years to come. Kidd doubted that any industry would be brought to the north based on the available resources. Furthermore, he believed that the flooding of the reservoir would ultimately sacrifice these resources.<sup>11</sup>

6 While the Premier stressed industrial and financial opportunities, local residents questioned other aspects of the proposal. In her column, "The Other Side," Vera Loucks wrote about the Peace River development propaganda, which gave an impression of extensive industrialization in the area. Loucks claimed the real objective was to sell the power to southern B.C. and the United States. Indeed, Loucks indicated that the amount of power generated by the dam would exceed the demands in the north. Supporting Loucks' concerns, a September 1959 press release by Gordon Shrum, chairman of the B.C. Energy Board, suggested that B.C. should develop all of its power resources and quickly build an export market.<sup>12</sup>

7 However, in 1960, as final confirmation of the project approached, a widespread anticipation of immediate economic development in Hudson's Hope became apparent. According to a January 11, 1960 article in the *Alaska Highway News*, landowners were receiving regular purchase offers from those who wanted to establish businesses; the Hudson's Bay Company store was rumoured to be reopening; and sawmills were busy and expanding. A former business owner in Hudson's Hope, Art Anderson, reopened his hardware store, stating, "It's now at the dawn of a new era. No town in B.C. has a better future than Hudson's Hope . . ."<sup>13</sup>

8 Indeed, by 1960, all around the village of Hudson's Hope, residents were preparing for immediate industrial and financial growth. While there was some resistance to the tearing up of paths to widen street allowances and to the tearing down of fences, residents realized that this reconfiguring of their village was a prelude to the biggest development project in the province. Dan Murray of the *Alaska Highway News* reported that "big silver Canadian dollars took the place of those hostile beady eyes."<sup>14</sup> Murray noted that a new hotel was being built; plywood was being stockpiled, awaiting new builders; a new grocery store was opening; and an old cafe site had been purchased by Victoria businesspeople.<sup>15</sup> Other developments included the move of the Canadian Bank of Commerce, from a trailer to a permanent establishment. In addition, real estate prices had risen, and a gas station and taxi service were established. Travel options to and from Hudson's Hope were also improving with the start of Canadian Coachways daily bus run, an airstrip, and a new road south to the Hart Highway.<sup>16</sup>

9 However, despite the emphasis on financial and economic opportunities, public responses were becoming negative. The building of the Bennett Dam was attracting the attention of the public far outside the area of Hudson's Hope and northern B.C. The influx of people coming to Hudson's Hope to work on the dam was putting strain on school facilities, forcing children to be bused to other schools out of their district, and away from their homes. An angry parent wrote "that B.C. Hydro [should] be willing to build schools in lieu of [paying] taxes, if the government is unable to find money for education."<sup>17</sup> As well, concerns were reported over water and sewer difficulties, due to the increase in the population. Without the construction of a sewer system, the village water wells could be in danger of contamination from sewage.<sup>18</sup> With the building of the dam under way, Hudson's Hope was in the early stages of a boom, which was affecting the lives of the residents of this once-quiet community. According to Harry Hazlett, "Progress is good in many ways, and we all like to see it, but it brings changes, takes away things that we dislike to lose, and brings some things with it that are not good."<sup>19</sup> In the following years, this resistance would mount.

#### Public Responses to the Bennett Dam (1964-1968)

10 By 1964, the general public response to the building of the Bennett Dam was clearly less enthusiastic. Mary Humphries wrote about the frustration of the local people who felt pushed aside to accommodate the dam, suggesting that the old ways were colliding with the new ways.<sup>20</sup> Further frustration appears in public responses from residents who were taxed for services and schools needed for the laborers working on the dam. For years, locals had survived by looking out for one another, by making a living to meet their needs, and by enjoying a quiet community; but the building of the dam disrupted their lifestyle. Dennis Geddes, the district administrator from 1963 to 1974, stated: "I never felt the powers-to-be intended that Hudson's Hope would benefit to any degree from the construction of the dam."<sup>21</sup> Residents of Hudson's Hope also expressed the need for a permanent hospital in their community. In February 1966, a chamber of commerce meeting was held in Hudson's Hope to address this concern. Reeve Mr. Gething, a district official, felt that because of the workforce at the dam site, the population warranted a hospital. The District of Hudson's Hope was attempting to acquire the Red Cross outpost

hospital property and building, and was looking into financing.<sup>22</sup> However, despite the chamber of commerce efforts, on June 29, 1967, the *Alaska Highway News* headline read, "No hospital for Hudson's Hope." The hospital, which had been promised by B.C. Hydro, would not materialize. The hydro commission was willing to finance the hospital, but was told that it would be for overnight and emergency cases only; normal confinement cases would not be allowed because funds could not be provided to ensure adequate facilities. General treatment cases would go to Dawson Creek and Fort St. John.<sup>23</sup>

11 In 1963, Earl Pollon, a long-time resident of Hudson's Hope, described his personal frustration with the building of the dam, citing difficulties that the local people had getting employment at the dam site, the rush to build the dam, and the lack of respect for the acquisition of local property. Initially, Pollon supported the dam and the promise of prosperity, but he wrote a poem indicating his changing viewpoint:

God How I hate It! Yes, I hate it!  
I wish this dam project in hell!  
With all the rumble and racket  
I'd sooner hear harness and bell!  
.....  
I'm afraid . . . I shake like a child.  
I long for a silence to last.  
My body's arrived at this epoch,  
My soul has remained in the past.<sup>24</sup>

Pollon eulogizes the quiet lifestyle he had enjoyed for many years, a lifestyle that would soon be gone.

12 In keeping with Pollon's sentiments, public responses to the new reservoir, later to be named Williston Lake, showed a heightened concern for the environment. By 1965, the dam was drawing thousands of tourists, and development of a recreation industry on the reservoir was being considered. Officials of the Bank of Montreal, who visited the site, suggested that once the reservoir had been filled, hunting, fishing, and other recreational activities would further support tourism.<sup>25</sup> However, according to Mary Humphries' editorial, the

world's biggest human-made lake wasn't going to do anyone a good. She foresaw it as a menace to wildlife, and shipping on it would be nearly impossible. Humphries suggested that studies were needed to establish the lake's effects on area wildlife and climate. Additional surveys to determine maximum water levels were necessary to ensure adequate clearing of the shoreline and to avoid floating debris and dead trees, which would lessen the lake's tourism potential.<sup>26</sup>

13 Environmental concerns are described in a June 19, 1968 article in which a boom holding back debris behind the dam gave way, freeing up hundreds of acres of debris to float down and jam up behind the dam. The boom was holding the debris until it could be burned. The amount of debris in the lake would take years to clean up, with tugboats working steadily between freeze-ups. Burning of the debris, once collected, was causing environmental concerns because of the amount of smoke created.<sup>27</sup>

14 Earl Pollon ultimately became a major spokesman on environmental issues. In *This Was Our Valley*, Pollon reflects on concerns about the sudden burst of activity in the area. Pollon speculates about the future of the river and valley. Graves of trappers, miners, Klondikers, prospectors, and Natives would be flooded by the reservoir. For Pollon, the past would be lost, buried twice over. Moreover, he, too, was concerned about the effect the reservoir would have on the environment and animals in the valley. He expresses particular concern about the moose and their ability to find new habitats. Pollon also pointed out that Stone sheep would become more accessible to hunters as the water rose, even though it was illegal to hunt from a boat.<sup>29</sup>

15 By 1968, the dam had been completed and the boom-town situation in Hudson's Hope was subsiding. An editorial in the *Alaska Highway News* suggested that if Hudson's Hope could come up with an industrial commercial venture, or service, there was someone with a million dollars to invest. The article further noted that the chamber of commerce had received an inquiry and sent an invitation to an investor to come and look around. The editorial concluded that it would be hopeless to wait for Mr. Bennett and B.C. Hydro to address the future of Hudson's Hope: "They've got what they came for."



future is up to us."<sup>30</sup> The large school, which had been built to support the population explosion of the dam-building years, would now have to be maintained through local taxes, since the Peace River Power Project had been removed from the school tax rolls. "We've been cast into Bennett-dammed water to sink or swim... leaving us with nothing but a village and a large unorganized territory with a lot of overbuilt services."<sup>31</sup> Moreover, the medical doctors who were brought by Northern Powerplant Builders to work in Hudson's Hope announced that they would leave toward the end of 1968, closing the mobile clinic. Thus, Hudson's Hope would have no medical personnel in the community.<sup>32</sup> Public responses at this time showed that the people of Hudson's Hope realized that long-term economic growth would not materialize, and that their community would be left to its own devices, to develop and maintain industry.

16 As the construction era ended, intensified concerns for the environment are represented in public responses. Residents, some of whom were pioneers of the upper Peace River, faced displacement by the flooding of the reservoir. The Beattie family, in particular, who settled in the area in 1913, had to leave their ranch because the waters of the reservoir would completely cover it. Mrs. Beattie visited the ranch for the last time just before Hydro burned it to prevent debris from floating to the surface once flooding began. On August 29, 1963, the *Alaska Highway News* reported: "Mrs. Beattie loved and cared for the land with dedication and devotion, and the mist won't only be laying on the Peace River, some of it will be in her eyes."<sup>33</sup> Moreover, Ross Darnall, Sr., brought a court case against B.C. Hydro over compensation for his land, which was also to be flooded by the reservoir. Mr. Darnall presented his points to the judge, stating: "What is the value of a good fishing stream, the view of majestic mountains, the stillness of the afternoon, as well as the value of timber on a 250 acre ranch, all soon to be lost to a watery grave[?]"<sup>34</sup>

17 Environmentally-based public responses from residents 1200 kilometers downstream of the Bennett Dam began once the Peace River's flow had been reduced by the filling of the reservoir. The Peace-Athabasca Delta and the hamlet of Fort Chipewyan were for the first time seeing the impact of the dam. Athabaskan Chipewyan, Mikisew Cree, and Chipewyan Métis who inhabited the Fort

Chipewyan region had not been previously informed about potential impact of the dam on their area. Charlie Voyageur, of Athabasca Fort Chipewyan First Nation, worked as a driller on dam site and could not recall thinking about or having it brought his attention that the dam might have an impact on the people of delta and Fort Chipewyan. Legislation to protect the environment and human communities was weak in the 1960s, and neither the Alberta nor B.C. government took measures to fully assess downstream effects. Low water levels on the delta, caused by the Peace River being held back to fill the reservoir, affected the existing vegetation supply mammals, thus reducing species populations. This, in turn, affected the lifestyle of the residents by reducing their hunting, trapping, and fishing opportunities. The people of Fort Chipewyan and the Peace-Athabasca Delta not only worried that their livelihood would not recover if the water level didn't increase, but also that their recreational pleasure and spiritual inspiration would be lost as well. Moreover, the residents worried about possible permanent diminishment of the land and waterways. In 1970, the residents of Fort Chipewyan filed a lawsuit against B.C. Hydro, citing the effects that the Bennett Dam had on the Peace-Athabasca Delta.<sup>35</sup> To date, the court case has not been settled.

### Conclusion

18 The building of the Bennett Dam on the Peace River inspired a desire for immediate industrial and financial growth. Responses from residents of Hudson's Hope and the upper Peace River initially showed optimism about new industry and wealth for the region. However, once the dam neared completion and the economy of the community began to slow down, responses showed concern for the long-term effects that the dam and its reservoir would have on human lives, economic security, and the natural environment. The people of the Peace-Athabasca Delta, who were unaware of the developments on the Peace River until the dam was complete, also voiced concern about the long-term economic and environmental effects on the region. In 1993, the Peace-Athabasca Delta Technical Studies were established to develop an ecosystem management plan. The goal of the program was to understand and select strategies for restoring the role of water in the delta.<sup>36</sup>

19 In retrospect, regional responses to the construction of the Bennett Dam can be situated in the larger context of a global environmental movement that expresses moral concern about the relationship between humans and the environment. Indeed, as the finishing touches were being put on the Bennett Dam, Greenpeace, Earth First, and other organizations began to speak out against activities such as nuclear testing, whaling, and the construction of dams elsewhere in North America. Furthermore, a heightened regard for the environment has since become evident within the Peace region itself. In the 1970s, when B.C. Hydro proposed to build yet another dam on the Peace River (at Site C), opposition to the dam mounted quickly.

20 Leo Rutledge, a long-time Hudson's Hope resident who was involved in several wilderness organizations and was a member of the Peace Valley Environmental Association, spoke out against the Site C Dam. Rutledge argued that a hearing needed to be held to inform the people of the effect the dam would have on the area.<sup>37</sup> Meanwhile, the people of the area remembered the long-term economic and environmental impact of the Bennett Dam and were less ready to be swayed by optimistic economic forecasts. Public responses showed a concern for the environment, for the animal habitats that would be lost, and for the farmland that would be flooded by the new reservoir.<sup>38</sup> Despite these concerns for the environment, some Fort St. John business people spoke out in favor of the Site C project, envisioning the building of another dam in the area as a way to provide jobs and improve the economy.<sup>39</sup> However, in 1980, the B.C. *Utilities Act* was passed, compelling B.C. Hydro to produce demand and supply forecasts, and to conduct social and environmental impact assessments.<sup>40</sup> In 1983, the B.C. Utilities Commission rejected the Site C proposal because the demand for power did not warrant another dam, and impact studies were not completed.<sup>41</sup> Today, twenty years later, B.C. Hydro has expressed renewed interest in Site C. Thus, citizens may again debate the desirability of another mega-project on the Peace River.

## NOTES

1. *Fort Chipewyan Way of Life Study* (Vancouver: Stuart Adams & Associates Planning Limited, 1998), p. 6.

2. Ibid.
3. "It'll Be the World's Largest," *Alaska Highway News*, 09 October 1958, p. 1.
4. "Welcome to the WAC Bennett Dam" Retrieved September 30, 1999 from [http://www.hhcn.prn.bc.ca/district/bc\\_hydro/bchydro.html](http://www.hhcn.prn.bc.ca/district/bc_hydro/bchydro.html)
5. "400 M.P.R. Power Project," *Alaska Highway News*, 09 October 1958, p. 1.
6. "It'll Be the World's Largest," *Alaska Highway News*, 09 October 1958, p. 1.
7. Interview with Mary Humphries, 21 February 2000.
8. David J. Mitchell, *W.A.C. Bennett and the Rise of British Columbia*, (Vancouver: Douglas and McIntyre, 1983), p. 25.
9. H.L. Briggs, "Canada's Biggest Give-Away Show in Your Own Backyard," *Alaska Highway News*, 27 November 1958, p. 1.
10. "It'll Be the World's Largest," *Alaska Highway News*, 27 November 1958, p. 1.
11. Desmond Kidd, "Wenner-Gren Hydro Project Overrated," *Alaska Highway News*, 27 November 1958, p. 15.
12. Vera Loucks, "The Other Side," *Alaska Highway News*, 05 December 1959, p. 1.
13. "Hudson's Hope Begins to Stir as Zero Hour Nears," *Alaska Highway News* January 1960, pp. 1, 8.
14. Dan Murray, "Hudson's Hope... The Best Town by a Damsite!" *Alaska Highway News*, 07 September 1961, p. 10.
15. Ibid.
16. "Quiet Backwater Looks for Bigger Things," *Alaska Highway News*, January 1962, pp. 1, 8.
17. "Our Readers Write," *Alaska Highway News*, 18 October 1962, p. 3.
18. "Quiet Backwater Looks for Bigger Things," *Alaska Highway News*, 11 January 1962, p. 8.
19. "Hudson's Hope, The Old and the New," *Alaska Highway News*, 10 October 1963, sec. 2, p. 3.
20. Mary Humphries, "White Water," *Alaska Highway News*, 14 November 1965, sec. 3, p. 2.
21. "Hudson's Hope 1965," *Alaska Highway News*, 13 January 1966, sec. 2, p. 4.
22. "Plans Go Ahead for Hospital Here," *Alaska Highway News*, 17 February 1966, sec. 2, p. 3.
23. "No Hospital for Hudson's Hope," *Alaska Highway News*, 29 June 1967, p. 1.
24. Earl K. Pollon and Shirlee Smith Matheson, *This Was Our Valley* (Calgary: Detselig, 1989), p. 183.
25. The Bank of Montreal Visits the Peace River," *Alaska Highway News*, 19 November 1966, sec. 3, p. 4.
26. "We Need Help," *Alaska Highway News*, 05 June 1968, sec. 3, p. 2.
27. "Dam Boom Breaks, Debris Lets Loose," *Alaska Highway News*, 10 July 1968, sec. 3, p. 6.
28. Earl K. Pollon and Shirlee Smith Matheson, *supra* 24, p. 131.
29. Ibid., p. 132.
30. "Editorial," *Alaska Highway News*, 24 January 1968, sec. 3, p. 6.
31. "Editorial," "Cast Aside?" *Alaska Highway News*, 08 May 1968, p. 1.

32. "Editorial," *Alaska Highway News*, 05 June 1968, sec. 3, p. 2.
33. "The River Gave," *Alaska Highway News*, 29 August 1963, pp. 4-6.
34. "Court Action Result of Hydro Land Grab," *Alaska Highway News*, 17 January 1968, p. 1.
35. *Fort Chipewyan Way of Life Study*, *supra* 1, p. 10.
36. *Pence-Athabasca Delta Technical Studies*, 1996, (WordPicture Communications), pp. 1, 2.
37. Earl K. Pollon and Shirlee Smith Matheson, *This Was Our Valley*, *supra* 24, p. 317.
38. *Ibid.*, p. 310.
39. *Ibid.*, p. 314.
40. *Ibid.*, p. 310.
41. *Ibid.*, p. 319.

## Writing in the Sciences

Every great advance in science has issued from a new audacity of imagination.

—John Dewey

Scientific discourse has a reputation for being one of the more challenging forms of academic writing. It often involves highly technical language, numbers, graphs, equations, and tables that are unintelligible to the layperson. Some of us may feel as though scientists speak another language. Nevertheless, on the whole, we tend to tolerate and even respect such difficulty because we sense that something important is at stake. The goal of much science writing, after all, is to reveal patterns in nature, and that activity can have real and immediate significance in our lives. Further, scientific reports present data and interpretation in an effort to persuade others to accept or reject the hypotheses under consideration. Thus, while the humanities often struggle to justify their existence, science and technology are firmly entrenched as funding priorities among university and governmental administrators.

Whereas the goal of writing in the humanities may be to speculate philosophically on the human condition, the goal of much science writing is to reveal patterns in nature. Scientists want to let nature speak for itself.

# **Designs for Disciplines**

**An Introduction to Academic Writing**

**Edited by  
Steven C. Roe and  
Pamela H. den Ouden**

Canadian Scholars' Press Inc.

Toronto

**Designs for Disciplines: An Introduction to Academic Writing**  
edited by Steven C. Roe and Pamela H. den Ouden

First published in 2003 by  
Canadian Scholars' Press Inc.  
180 Bloor Street West, Suite 801  
Toronto, Ontario  
M5S 2V6

www.cspi.org

Copyright © 2003 Steven C. Roe, Pamela H. den Ouden, the contributing authors, and Canadian Scholars' Press Inc. All rights reserved. No part of this publication may be photocopied, reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical or otherwise, without the written permission of Canadian Scholars' Press Inc., except for brief passages quoted for review purposes. In the case of photocopying, a licence from Access Copyright may be obtained: The Canadian Copyright Licensing Agency, One Yonge Street, Suite 1900, Toronto, Ontario, M5E 1E5, (416) 868-1620, fax (416) 868-1621, toll-free 1-800-893-5777, [www.accesscopyright.ca](http://www.accesscopyright.ca).

Every reasonable effort has been made to identify copyright holders. CSPI would be pleased to have any errors or omissions brought to its attention.

CSPI gratefully acknowledges financial support for our publishing activities from the Government of Canada through the Book Publishing Industry Development Program (BPIDP) and the Government of Ontario through the Ontario Book Initiative.

National Library of Canada Cataloguing in Publication Data

Designs for disciplines : an introduction to academic writing / edited by  
Steven C. Roe and Pamela H. den Ouden.

Includes bibliographical references and index.  
ISBN 978-1-55130-244-7

1. English language—Rhetoric. 2. English language—Grammar. 3. Academic writing.  
I. Roe, Steven C. (Steven Charles), 1960- II. Den Ouden, Pamela H.

PE1408.R647 2003

808'.042

C2003-903673-1

Cover design by Drew Hawkins

Cover art: David James, "Interlace Mandala" from his book *Celtic Designs: An Arts and Crafts Source Book*, first published by Blandford Press, 1997; 4<sup>th</sup> printing Orion Books, 2001.  
Text design and layout by Brad Horning

09 10 11 12 7 6 5

Printed and bound in Canada by Marquis Book Printing Inc.

Canada



We dedicate this book to our families:  
thank you for your constant support and encouragement.

S. R. — For Jane, Paul, and Julia

P.D. — For Fred, Diana, Jadon, and Jordan



Canadian Scholars' Press  
Engaging ideas, transforming minds



WOMEN'S  
PRESS

Canadian Scholars' Press Inc.  
425 Adelaide St. W., Suite 200, Toronto, ON, Canada M5V 3C1  
Telephone: 416.929.2774 Fax: 416.929.1926  
email: emma.johnson@cspi.org

November 22, 2013

CSPI Ref. No. 08137

RE: Permission Request

Dear Gwen Johansson,

Thank you for your request for permission to reprint materials from publications for which Canadian Scholars' Press Inc. (CSPI) or Women's Press (WP) holds copyright. We are pleased to grant permission for the use of the materials shown below for the fee indicated and on the conditions set out in this letter. This permission covers only material for which CSPI/WP holds copyright; it does not cover any material with an independent copyright notice or a separate source notation.

**Title:** Designs for Disciplines, edited by S. Roe and P. H. den Ouden, CSPI, 2003 (ISBN 9781551302447)

**Excerpt:** Dressler, Laurie. Harnessing the Peace: Economic and Environmental Themes Amid Public Responses to the Construction of the Bennett Dam, 1957–1968, pp. 253–264.

**For Use in:** Submission to an environmental assessment hearing

**Rights Requested:** 1 photocopy

**Requested Fee:** N/A

**Conditions:**

1. The customary credit must be given to the author, the title, and to Canadian Scholars' Press Inc./Women's Press as publishers. The acknowledgement must also include the statement "Reprinted by permission of Canadian Scholars' Press Inc. and/or Women's Press" and the copyright notice exactly as it appears in our publication.
2. The acknowledgement must be placed either on the copyright page of your work or on the first page of each extract covered by this permission.
3. A cheque for the required fee must accompany the signed copy of the agreement. Please make cheque payable to Canadian Scholars' Press Inc. and mail it to the address above. This permission will not be valid until a signed copy of the agreement and payment are received by CSPI.
4. This permission is non-exclusive and unless otherwise stated is valid throughout the world in the English language only.
5. This permission covers one edition, press run and/or digital only. Unless specifically stated otherwise, this permission does not allow the use of this material in any other edition, or by any other means of reproduction, including (by way of example) digital reproduction, motion pictures, sound tapes, phonograph records, nor does it cover book clubs, translations, digest, abridgement, or selections that may be made from the publication. It does, however, include use in Braille, large-type, or other editions of your work by non-profit organizations solely for the use of the visually or physically handicapped, provided no fees are charged.

If these terms and conditions are acceptable, please sign one copy of this agreement and return it with the requested fee to us at the address above. Please make any fees payable in Canadian funds or equivalent USD to Canadian Scholars' Press.

I agree to the terms and conditions set forth above.

Requester's signature

*Gwen Johansson*

Requester's name and title (print)

*Gwen Johansson, Mayor, District of  
Hudson's Hope*

Date of this agreement

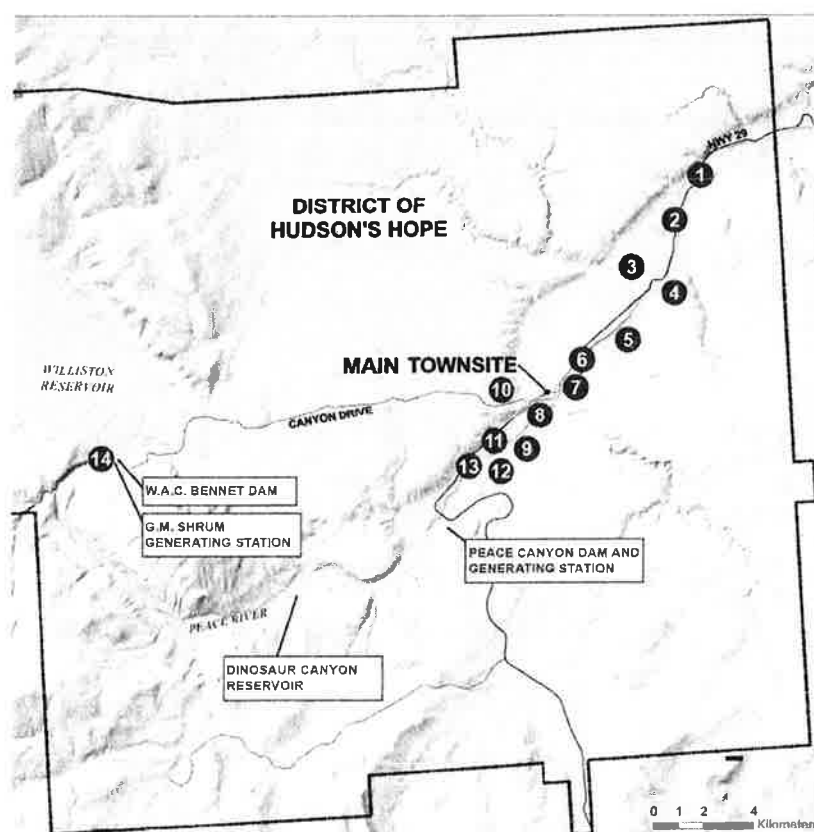
*November 22, 2013*

Permission is granted, provided the terms and conditions agreed to above are honoured.

Yours sincerely,

Emma Johnson  
Permissions Coordinator  
Canadian Scholars' Press, Inc. / Women's Press  
425 Adelaide Street West, Suite 200  
Toronto, ON M5V 3C1  
416-929-2774 x 228  
f: 416-929-1926  
emma.johnson@cspi.org

## Summary of Major Impacts



- 1 Approximately 16 km, or close to 20%, of the **new reservoir** will be located within the District's boundaries.
- 2 The removal of only a portion of timber prior to flooding will result in deadhead problems and more 'snags' for fishing. This will compromise the safety, enjoyment and marketability of the new reservoir.
- 3 BC hydro has acquired (or is acquiring) 97 lots which will be lost to the new reservoir - including 29 serviced **residential lots** near Lynx Creek with valley views.
- 4 The **Lynx Creek Campground and Boat Launch** will be completely flooded.
- 5 Over 8 km of **Highway 29** located within District's boundaries will be flooded and will need to be re-aligned and re-constructed.
- 6 The proximity of the new reservoir to the District's existing **wastewater and treatment disposal facilities** may result in necessary upgrades to the plant's capacity in order to meet higher discharge requirements.
- 7 The **D.A. Thomas Boat Launch** will be inundated and inaccessible for a 3-4 year period during berm construction and the flooding of the new reservoir.
- 8 The community's **water supply** will be inundated and the District will have to develop a new water treatment plant, without the benefit of a pilot study resulting in a need to 'overbuild' the new plant making it more complex and costly to operate.
- 9 A **large berm**, approximately 12 m to 14 m high and over 2.5 km long, will be constructed to prevent bank recession and erosion throughout the extent of the townsite.
- 10 Canyon Drive, Clark Avenue and Beattie Drive (Highway 29) will be used as **major haul routes** for riprap, road construction aggregate, and bridge materials during construction. These haul routes bisect the main townsite and are a safety concern for drivers and pedestrians.
- 11 The new **bank stability** line will encroach on many properties located along the new reservoir. This will significantly reduce the usable depth of these properties. 27 prime valley view houses will be eliminated.
- 12 The new reservoir and the construction of the large berm will permanently alter the prized **valley views** of many residential properties throughout the community.
- 13 **Alwin Holland Park and Campground** will be partially flooded. It is one of the most popular and photographed parks in the entire Peace region.
- 14 The new reservoir will reduce the Peace River's ability to 'absorb' flood waters generated upstream. We believe this will reduce the **evacuation response time** for the community (to less than 45 minutes) in the event of a catastrophic failure at upstream dams. Reduced evacuation time will compromise the safety of the community.

**FIGURE 1**



# **Grants in Lieu for Hydroelectric Facilities in Hudson's Hope**

## **Report prepared for District of Hudson's Hope**

### **Introduction:**

The District of Hudson's Hope is home to BC Hydro's Peace River generation facilities, including the WAC Bennett Dam, GM Shrum Generating station, Peace Canyon Dam and Generating Station, and Dinosaur Lake, entirely within our municipality, as well as a significant presence of Williston Reservoir. These are the "flag-ship" facilities of the provincial hydro-electric system, and collectively provide one third of the province's electricity, as well as most of the hydro-electric storage which leverages the efficiency of the entire system.

These generating facilities comprise the only industrial base in Hudson's Hope, yet are not taxable. If taxable, they would produce revenue for the District in the order of \$28 million a year. BC Hydro generating facilities are exempt taxation and instead provide Grants-in-Lieu (GIL) allocated by Order-in-Council.

Grants-in-Lieu allocations to local governments are calculated in accordance with a policy administered by the Ministry of Finance. The Ministry maintains a policy that applies to all local governments in British Columbia, except District of Hudson's Hope, and a separate policy that applies only to Hudson's Hope. (Detailed in Appendix A.)

Currently under the "separate policy" noted above, the District of Hudson's Hope receives a substantially reduced Grant-in-Lieu compared to the amount that would be received if the provincial policy applied.

The restricted tax base has resulted in a significant infrastructure deficit in the community. Current challenges include water supply and treatment, wastewater treatment, sewer and water mains replacement, asphalt rehabilitation, and other infrastructure deficiencies affecting health and lifestyle. Current policy for Grant-in-Lieu allocation is unsatisfactory for Hudson's Hope.

## **Relevance to Site C:**

BC Hydro is currently seeking approval for Site C, a third dam on the Peace River. Site C will have significant impacts on the municipality, as described in BC Hydro's application and detailed in other submissions by the District of Hudson's Hope,. In fact Site C will have greater impacts on Hudson's Hope than on any other local government.

The prospect of Site C brings the GIL issue to the forefront and raises additional concerns.

It might be reasonable to expect that since Site C will result in increased impacts on the District of Hudson's Hope, and that since the Grants-in-Lieu are intended to address relative impacts, that the Grant-in-Lieu to the District will be automatically increased should Site C become operational. However this is not the case under the current policy.

This fact has been clarified by letter from the Minister of Finance to the municipality, as follows:

*"Unlike in the rest of the province, the grant payable to the District is not affected by changes in population or by changes (increases or decreases) in generating capacity."*  
(Letter from Colin Hansen, Minister of Finance dated November 16, 2010, attached)

The District of Hudson's Hope maintains that the Grants-in-Lieu should reflect the principles of fairness, equity and relative impact, as stated in the provincial policy. Hudson's Hope would propose that as a condition for Site C to proceed, a new policy for Grants-in-Lieu must be developed for the District that adequately reflects the impacts on the municipality from the two existing hydro-electric facilities and the addition of Site C and related reservoir.

## **Limited Tax Base:**

The District of Hudson's Hope has a very limited tax base. The total residential and commercial property assessment stands at \$104,489,140 for 2013. Property tax revenue from these sources in the current year totalled \$458,960.

The total light and major industrial assessments stand at \$10,450,442 for 2013 and the resulting property tax revenue was \$167,206.

It will be immediately evident to the reader that the tax revenue from these low assessments will not raise sufficient funds to address the infrastructure issues.

## **BC Hydro Tax Exempt Status:**

The District of Hudson's Hope is home to BC Hydro's Peace River generation facilities, including the WAC Bennet Dam, GM Shrum Generating station, Peace Canyon Dam and Generating Station, and Dinosaur Lake, entirely within our municipality, as well as a significant presence of Williston Reservoir. These generating facilities comprise the only industrial base in Hudson's Hope, however BC Hydro generating facilities are exempt taxation and instead provide Grants-in-Lieu allocated by Order-in-Council.

While the District hosts what is arguably one of the most valuable industrial assets in the province and serves the needs of local employees, contractors and related service industry, it is evident that the assessments for these related properties do not generate sufficient tax revenue to pay for the services required, hence the District now faces an infrastructure deficit which has grown over time to total more than \$25 million.

## **Taxation Option:**

The BC Hydro generation in Hudson's Hope includes 2730 MW at GM Shrum and a further 700 MW at Peace Canyon, for a total of 3430 MW. We note there are several examples where dams and generating stations in BC are taxed at industrial rates. The following provides the Megawatt (MW) capacity for some of these facilities and the amounts of tax revenue received by the local jurisdiction in one recent year:

- The 125 MW Brilliant Dam, owned by Columbia Power Corporation, paid local government taxes of \$421,000 in 2012, collected by the City of Castlegar.
- Four dams and generating stations owned by Fortis BC, totalling 235 MW, paid \$781,507 local government taxes in 2012, collected by the City of Nelson.
- The Waneta dam and generating station, partly owned by Teck Corporation, and comprising 450 MW capacity, paid \$1,288,813 local government taxes in 2012, collected by the Kootenay Boundary Regional District.
- Independent power producers' facilities in BC are subject to full industrial property assessments and tax levies.

If the BC Hydro generating facilities in Hudson's Hope were taxable on a comparable scale, they would produce revenue for the District in the order of \$28 million a year.

## **Provincial Grant-in-Lieu Policy:**

The current Grant-in-Lieu policy for BC Hydro generating facilities was introduced in 2007 and is based on the generating capacity at each facility and a three tier system of grants depending on the size of the facility. A formula set by the Ministry of Finance prescribes how the grant from each facility is distributed among the host community and other impacted jurisdictions, based on relative impact. (Details of this policy are described in Appendix A.)

Based on this policy, the District of Hudson's Hope would have received grants totalling \$2,224,695 in 2013.

## **Separate Policy for Hudson's Hope:**

Hudson's Hope does not fall under the provincial Grant-in-Lieu policy referenced above. Rather, a "separate policy" was established in 2007 and set an arbitrary amount for the grant to Hudson's Hope. In 2013 this grant amount was \$1,225,042, a shortfall of \$999,653 from the amount which would be prescribed by the provincial policy.

This "separate policy" treatment for Hudson's Hope results in irrational grant allocations when comparing impacted jurisdictions. This distortion is further exacerbated by a "waterbed provision" which increases the grants to other impacted jurisdictions in the approximate amount of the shortfall in the Hudson's Hope grant. (See Appendix A for details.)

As one example, this results in the District of Mackenzie receiving a grant nearly 20% larger than Hudson's Hope, despite the fact that Mackenzie is not host to any facility and is impacted by only one reservoir, while Hudson's Hope is impacted by two reservoirs and hosts two dams and generating stations.

## **Summary of Policy Impacts:**

- The current grant formula was introduced in 2007 and provides grant amounts for each generating station on a three tier system. The amounts have been subject to escalation since 2007. In 2013 the amounts were approximately \$1636 per megawatt for the first 400 MW, then \$1213 for the next 400 MW and \$790 for each additional MW.
- On this basis, the 2013 grants for Peace Generating facilities would be:
  - Bennett/G M Shrum: 2730MW:      \$2,664,300
  - Peace Canyon: 700 MW:              \$1,018,300
  - Total:                                      \$3,682,600

- The provincial policy also prescribes the basis for distributing the grants-in-lieu to the impacted communities. This formula is set by the Ministry of Finance and is as follows:
  - 40% to the host community
  - 60% to the impacted jurisdictions (includes municipalities and regional districts)
  - For Bennett/GM Shrum, 40% is allocated to Hudson's Hope as host community and the remaining 60% is allocated among Mackenzie (28.76%), Peace River RD (21.95%), Hudson's Hope (5.28%) and Fraser-Fort George RD (4.01%).
  - For Peace Canyon, the entire grant is allocated to Hudson's Hope as both the host and impacted community.
- Based on the relative impact as set out in the provincial policy, in 2013 Hudson's Hope would have received a grant as follows:
 

○ 40% of Bennett/GM Shrum as host:	\$1,065,720
○ 5.28% of Bennett/GM Shrum as impacted community:	140,675
○ 100% of Peace Canyon as host and impacted community:	<u>1,018,300</u>
○ Total:	\$2,224,695
- However, Hudson's Hope does not fall under the provincial policy, rather, a "separate policy" was established in 2007 and set an arbitrary amount for the grant to Hudson's Hope. In 2013 this grant amount was \$1,225,042, a shortfall of \$999,653 from the amount which would be prescribed by provincial policy.
- In addition, a "waterbed" provision exists in the provincial policy, which allocates additional grant amounts to communities other than Hudson's Hope. By way of background, prior to 2007, Hudson's Hope's grant was capped at \$616 per capita. In 2007, this cap was replaced by the arbitrary "separate policy" described above, and the "waterbed" provision provides that:
 

*"The balance of the total grant amount that would have been available to other jurisdictions impacted by the G.M. Shrum facility if the cap had been in place for Hudson's Hope (about \$930K) was redistributed to those jurisdictions as though the cap was still in place. The jurisdictions are District of Mackenzie, Peace River Regional District and Fraser-Fort George Regional District." (Quote from Ministry of Finance per Grants-in-Lieu Policy.)*
- Note that since the grant calculation under provincial policy has been escalated each year since 2007, but the notional Hudson's Hope "cap" remains fixed at the

pre-2007 amount of \$616, the actual windfall to the other jurisdictions is increasing each year and amounts to about \$1.6 million in 2013.

- The “separate policy” and the “waterbed provision” combine to distort the grant allocations such that they do not serve the principles of equity, fairness and relative impact. In addition the “waterbed provision” actually increases the financial burden on BC Hydro.

In 2013 the actual Grants-in-Lieu for Peace Generating facilities were allocated as follows:

-Hudson’s Hope:	\$1,225,042.	
-Mackenzie:	1,458,011.	
-Peace River RD:	1,112,773.	
-Fraser-Fort George RD:*	670,395.	*Includes an amount for Mica/Kinbasket)
Total:	\$4,466,221.	

Grant to which Hudson’s Hope would be entitled under provincial policy: \$2,224,695.

Underpayment to Hudson’s Hope in 2013: \$ 999,653.

Cumulative underpayment to Hudson’s Hope since 2007: \$6,002,299.

(Appendix B provides details of Grant-in-Lieu amounts from 2007 to 2013.)

This allocation does not serve the principles on which Grants-in-lieu are based, i.e. fairness, equity and relative impact. Nor does this allocation serve the core intent of the provincial policy which allocates 40% to the host community and divides the other 60% based on relative impact.

In the past, the Province has pointed out that the Grant-in-Lieu “*is not intended to provide a windfall.*” Yet the “waterbed provision” clearly provides a windfall to jurisdictions other than Hudson’s Hope despite their bearing lesser impacts of the hydroelectric facilities.

The lump sum amount for Hudson’s Hope is arbitrary and illogical when compared to other grants. As one example, Mackenzie receives nearly 20% more than Hudson’s Hope. This clearly does not meet the intent of the distribution formula set by the Ministry which states that Hudson’s Hope would receive 45.28% of the Bennett/GMS grant while Mackenzie would receive 28.76%, and Hudson’s Hope would receive 100% of the Peace Canyon grant.

Hudson’s Hope has two generating stations within municipal boundaries and is impacted by two reservoirs. Mackenzie has no generating stations and is impacted by one reservoir. That impact is positive in that it provides a transportation option for logs.

Hudson's Hope is inundated should one of the dams experience a catastrophic failure and the municipality maintains warning sirens that would give the residents 30 minutes to evacuate.

Another example is Port Moody which received a Grant in Lieu of \$1,235,121 for Burrard Thermal, a plant which rarely operates. The Ministry has not provided any explanation of the rationale for these imbalances.

Further inequity is created by the annual payments for as long as the dams operate to the Tsey Keh First Nation of approximately \$2 million for impacts of Williston, and approximately \$1.5 million to Kwadacha First Nation for impacts of Williston although that community is not located on the reservoir.

The Site C development is now in the advanced stages of planning. Should Site C proceed, Hudson's Hope will be the community that bears more of the additional impacts than any other community. Yet the "Separate Policy" for Hudson's Hope provides that *"the grant payable to the District is not affected by changes (increases or decreases) in generating capacity."*

### **Fairness, Equity and Relative Impact:**

Ministry of Finance staff have indicated that the Grant-in-Lieu policy is based on key principles of equity across local and regional governments and reasonable financial obligations for the utility and that grants are awarded *"according to a formula that reflects the extent to which the jurisdiction is affected relative to other affected jurisdictions"*.

The District of Hudson's Hope would argue that the current allocation of grants does not meet the principles of fairness, equity and relative impact.

- Full tax treatment for the Peace River generating facilities would result in a tax levy for the District of Hudson's Hope of approximately \$28 million annually. Only BC Hydro, Columbia Power Corp and Rio Tinto Alcan are exempt taxation on generating facilities in BC. Other publicly owned and private corporations are assessed at industrial tax rates and pay tax levies accordingly.
- Allocation of grants based on relative impact, equity among local governments, and reasonable obligation for the utility, as detailed in the current provincial policy, would result in grants to the District in the order of \$2.22 million. The provincial Grant-in-Lieu policy includes measures to ensure that the grants

allocated relate to the relative size and impacts of the facilities involved, and fairness in the proportional amounts.

- The actual allocation to the District under the “separate policy” totalled \$1.23 million in 2013. The amount allocated to Hudson’s Hope is set in a completely arbitrary manner and has no relationship to the size of facility or relative impact on the community.

## **Summary:**

The District has an urgent need to address a significant backlog of infrastructure issues in the municipality. The backlog has developed over a number of years and could have been addressed in part by a Grant-in-Lieu policy that reflects relative impact from the hydroelectric facilities within municipal boundaries.

The current Grant-in-Lieu received by the District of Hudson’s Hope represents a shortfall in the order of \$27 million compared to assessment and tax levy at industrial tax rates. However the District acknowledges that full tax treatment is not required.

Provincial policy states that grants are calculated on the basis of the generating capacity of the facilities and are awarded *“according to a formula that reflects the extent to which the jurisdiction is affected relative to other affected jurisdictions”*. Ministry staff has indicated that key principles guiding the allocation of Grants-in-Lieu include equity across local and regional governments and reasonable financial obligations for the utility.

The District of Hudson’s Hope would argue that the current allocation of the Grants-in-Lieu does not serve the principles on which the grants are based, i.e. fairness, equity and relative impact. Nor does this allocation serve the core intent of the provincial policy which allocates 40% to the host community and divides the other 60% based on relative impact.

The Site C development is now in the advanced stages of planning. Should Site C proceed, Hudson’s Hope will be the community that bears more of the additional impacts than any other community. Yet the “Separate Policy” for Hudson’s Hope provides that *“the grant payable to the District is not affected by changes (increases or decreases) in generating capacity.”*

Future impacts, should Site C proceed, will be significant and must be addressed by a renewed approach to Grants-in-Lieu for the BC Hydro facilities within the District’s jurisdiction.



The District is appealing for a renewed grant-in-lieu treatment that reflects fairness, equity among local governments and recognizes relative impact of the hydroelectric facilities including Site C should it proceed.

**Prepared by: David Read, Aspen Communications Ltd**

**November 20, 2013**

## **Appendix A: Grants-in-Lieu Policy**

### ***Grants in Lieu Policy (as provided by Ministry of Finance - August 17, 2010)***

- *In 2006 the Minister of Finance announced a new grant-in-lieu policy, effective for the 2007 taxation year.*
- *The method for calculating grants-in-lieu paid by BC Hydro in respect of its generation facilities was revised to provide greater transparency as to the method, and greater certainty for municipalities and regional districts as to the amount of the grant they would receive each year.*
- *For 2007, the base year for the new policy, grant amounts for all municipalities and regional districts were calculated as follows.*
  - *The generating capacity of the facility was apportioned as follows:*
    - *Tier 1: up to 400 MW*
    - *Tier 2: over 400 MW to 800 MW*
    - *Tier 3: over 800 MW*
  - *The generating capacity in each Tier was then multiplied by the rate below as applicable:*
    - *Tier 1: \$1,160.00 per MW*
    - *Tier 2: \$ 860.58 per MW*
    - *Tier 3: \$ 561.16 per MW*
  - *The amount of the grant to be paid in respect of the generating facility was then apportioned to the municipality or regional district that is the host of the facility and the municipality(ies) or regional district(s) that is impacted by the facility. The host receives 40 percent of the total grant amount. All impacted municipalities and regional districts (this can include the host) share the remaining 60 percent of the grant amount. The percentages are historical.*
- *In each year after 2007, the amount of the grant to be paid to a municipality or regional district equals the total amount of the grant paid in the previous year, increased by the increase in total municipal property tax revenues.*

*The 2010 Grants in Lieu are approximately \$1420 for Tier One, \$1053 for Tier Two and \$686 for Tier Three. The Grants are currently indexed based on year-over-year changes in the total municipal property tax revenue in British Columbia. (E.g. the 2010 grants are increased 6.99% over 2009.)*

*The generation grants in respect to a particular generating facility are distributed with 40% to the host community (i.e. the local government jurisdiction in which the facility is located) and 60% to the "impacted" jurisdictions. The formula for distribution to the impacted jurisdictions is set by the Ministry of Finance. For Bennett Dam/GM Shrum, 40% is allocated to the District of Hudson's Hope as host community and the remaining 60% is allocated amongst District of Mackenzie (28.76%), Peace River Regional District (21.95%), District of Hudson's Hope (5.28%) and Fraser Fort George Regional District (4.01%). For the Peace Canyon facility, the District of Hudson's Hope receives the entire grant as both the host and impacted community.*

- The maximum annual grant that can be paid to any one municipality or regional district, with the exception of Hudson's Hope, is \$616.19 per resident (based on the most recent Census Canada information available). If, in any given year, the total grant amount available to a municipality or regional district exceeds this cap, the amount in excess of the cap is redistributed on a pro rata basis to the other municipalities or regional districts also impacted by the facilities in respect of which the grant is paid. No municipality is currently near the cap (except Hudson's Hope which is outside the cap).*

#### *Hudson's Hope Grant in Lieu Calculation*

- Subsequent to the announcement of the new grant-in-lieu policy, but prior to payment of the grants in 2007, an adjustment was made to the amount of the grant to be paid to Hudson's Hope. Hudson's Hope was no longer subject to the cap and the amount of the grant to be paid to the municipality was increased to \$869,103.*
- As a result of the adjustment made to the grant amount paid to Hudson's Hope in 2007 the cap no longer applies to grants paid to Hudson's Hope. Hudson's Hope is the only community to which the cap does not apply.*

- *The balance of the total grant amount that would have been available to other jurisdictions impacted by the G.M. Shrum facility if the cap had been in place for Hudson's Hope (about \$930K) was redistributed to those jurisdictions as though the cap was still in place. The jurisdictions are District of Mackenzie, Peace River Regional District and Fraser-Fort George Regional District. [Note: the amount redistributed has increased from \$930K to about \$1.6 million in 2013.]*
- *In each year after 2007, the amount of the grant to be paid to Hudson's Hope will equal the total amount of the grant paid to the municipality in the previous year, increased by the increase in total municipal property tax revenue.*

## **Appendix B: Summary of Grants in Lieu 2007 to 2013:**

The following table summarizes the grants in lieu as per the provincial formula and the actual grants received by the District of Hudson's Hope and the difference since 2007.

<b>Year</b>	<b>Grant per Formula</b>	<b>Actual Grant</b>	<b>Difference</b>
2007	\$ 1,578,541	\$ 869,103	\$ 709,438
2008	1,677,041	923,347	753,694
2009	1,806,173	994,445	811,728
2010	1,932,424	1,063,957	868,467
2011	2,028,065	1,117,261	910,805
2012	2,112,197	1,163,683	948,514
2013	2,224,695	1,225,042	999,653
<b>Total</b>	<b>\$13,359,137</b>	<b>\$ 7,356,838</b>	<b>\$6,002,299</b>

N 22337

P.R/W

THIS AGREEMENT is made as of the 29 day of July, 1978

Jul 11 10 03 AM '78

BETWEEN: PEACE VALLEY FARMS LTD.  
(Incorporation Number 76745)  
of 9947 - 100th Avenue  
Fort St. John, in the Province  
of British Columbia

(hereinafter called "the Owner")

OF THE FIRST PART

AND:

BRITISH COLUMBIA HYDRO AND POWER  
AUTHORITY, of 970 Burrard Street,  
in the City of Vancouver, in the  
Province of British Columbia,

(hereinafter called "B. C. Hydro")

OF THE SECOND PART

WHEREAS

A. In order to impound the waters of the  
Peace River for electric power generation purposes, and for  
the purposes of controlling the flow of water along the Peace  
River, B. C. Hydro is constructing or has constructed, a dam or  
dams on the Peace River and may construct other such dams.

B. The Owner is the owner of the land described  
in Schedule I hereto (hereinafter called "the land").

C. As a result of the construction and  
operation of one or more such dams, the land or portions  
thereof will from time to time be flooded or injuriously  
affected.

D. For the consideration set out below the  
Owner has agreed with B. C. Hydro to execute these presents.

NOW THIS AGREEMENT WITNESSETH THAT:

1. The Owner, for and in consideration of the  
premises and of the sum of One Thousand Eight Hundred-----  
dollars (\$1,800.00), (the  
receipt of which he hereby acknowledges) and of the covenants

MEMORANDUM OF REGISTRATION  
Registered the 31 day of July, 1978  
on application received at the time written or  
stamped on the application.

N 22337

- 2 -

and agreements on the part of B. C. Hydro hereinafter contained, hereby grants in perpetuity to B. C. Hydro the right, liberty and right of way for B. C. Hydro, its servants, agents and all others the licensees of B. C. Hydro, for purposes related to the construction, maintenance or operation of a dam, reservoir or any other plant, used or to be used for or in connection with the generation, manufacture, distribution or supply of power or for the purposes of controlling the flow of water:

(a) From time to time and for such period or periods and to such extent as B. C. Hydro may in its absolute discretion deem necessary or desirable, to saturate, permeate, overflow, flood and cover the land or any part or parts thereof with the flood, slack or back-water created by the erection or operation of any dam, dams, power generating plant or plants or other structure or structures;

(b) To cause debris to be deposited on the land in connection with overflowing, flooding or covering the land as aforesaid;

(c) To cause erosion, sloughing and slides on and of the land;

(d) To enter upon the land and remove, clear, destroy or dispose of any buildings, structures, timber or other natural growth, obstructions, accumulations, trash, filth or other things, and in particular, without limiting the generality of the foregoing, any buildings, structures, trailers, tents, or shelters for human habitation, which in the opinion of B. C. Hydro might in any way interfere with navigation or flood control or the operation of any such dam or generating plant, or the reservoir created by any such

N 22337

- 3 -

dam, or tend to render inaccessible, unsafe or insanitary either the said reservoir or the margin of the said reservoir;

(e) To enter upon the land and erect structures and signs, excavate and do such other work as may be desirable in connection with the needs of navigation or flood control or the operation of any such dam, generating plant or reservoir;

(f) Generally to do all acts necessary or incidental to the business of B. C. Hydro in connection with the foregoing.

2. For the consideration aforesaid, with intent that the covenant hereinafter on his behalf contained shall as far as possible bind the land and every part thereof, and the owner or owners thereof for the time being, and all persons claiming through, under or in trust for him, her or them, and shall enure to the benefit of B. C. Hydro, its successors and assigns, the Owner, for himself, his executors, administrators, successors and assigns, hereby covenants with B. C. Hydro not, without the written consent of B. C. Hydro first had and obtained, to make, place, erect or maintain any building, structure, material or thing or to plant any growth or to use or allow to be used for the purpose of human habitation any building, structure, trailer, tent or shelter upon the land.

3. Notwithstanding anything hereinbefore contained, B. C. Hydro hereby covenants with the Owner that it will give its consent to any activity or purpose set out in paragraph 2 herein relating to any building, structure, material, thing, growth, trailer, tent or shelter wholly situate above a line, designated the "safe line" which is shown in yellow upon the sketch plan hereto annexed and marked Schedule II.



4. For the consideration aforesaid, the Owner does further hereby for himself, his executors, administrators and assigns, release and discharge B. C. Hydro of and from all claim for loss, costs, damages, charges and expenses of any nature or kind to arise out of the impoundment, overflowing or flooding of water occasioned by the construction or operation of any dam, dams, generating plant or plants, or the exercise by B. C. Hydro of any of the rights, liberties and rights of way granted to it in this agreement, and does hereby accept the said consideration in full settlement and satisfaction of all present and future damages or causes of action which the Owner, his executors, administrators or assigns can now or may at any time hereafter incur, or have or make against B. C. Hydro by reason of the occurrence of any of the things aforesaid, and notwithstanding any such occurrence, he the Owner, for himself, his executors, administrators, successors or assigns, will not make any claim for compensation for personal injury (including death) or injury to any of his property, real or personal, on account of any such occurrence.

5. Notwithstanding anything hereinbefore contained, B. C. Hydro hereby covenants with the Owner not to cause the water impounded by the Peace River Dam to rise above an elevation of One Thousand Five Hundred and Twenty (1520) feet above mean sea level or One Hundred Feet (100) horizontally North and West of the One Thousand Five Hundred Fifteen (1515) feet contour, according to datum of the Geodetic Survey of Canada.

6. It is mutually agreed between the Owner and B. C. Hydro that:

- (a) The title to all timber cut on the land and to all things destroyed or disposed of by B. C. Hydro in the exercise of its rights hereunder shall vest in B. C. Hydro;



N 22337

SCHEDULE I

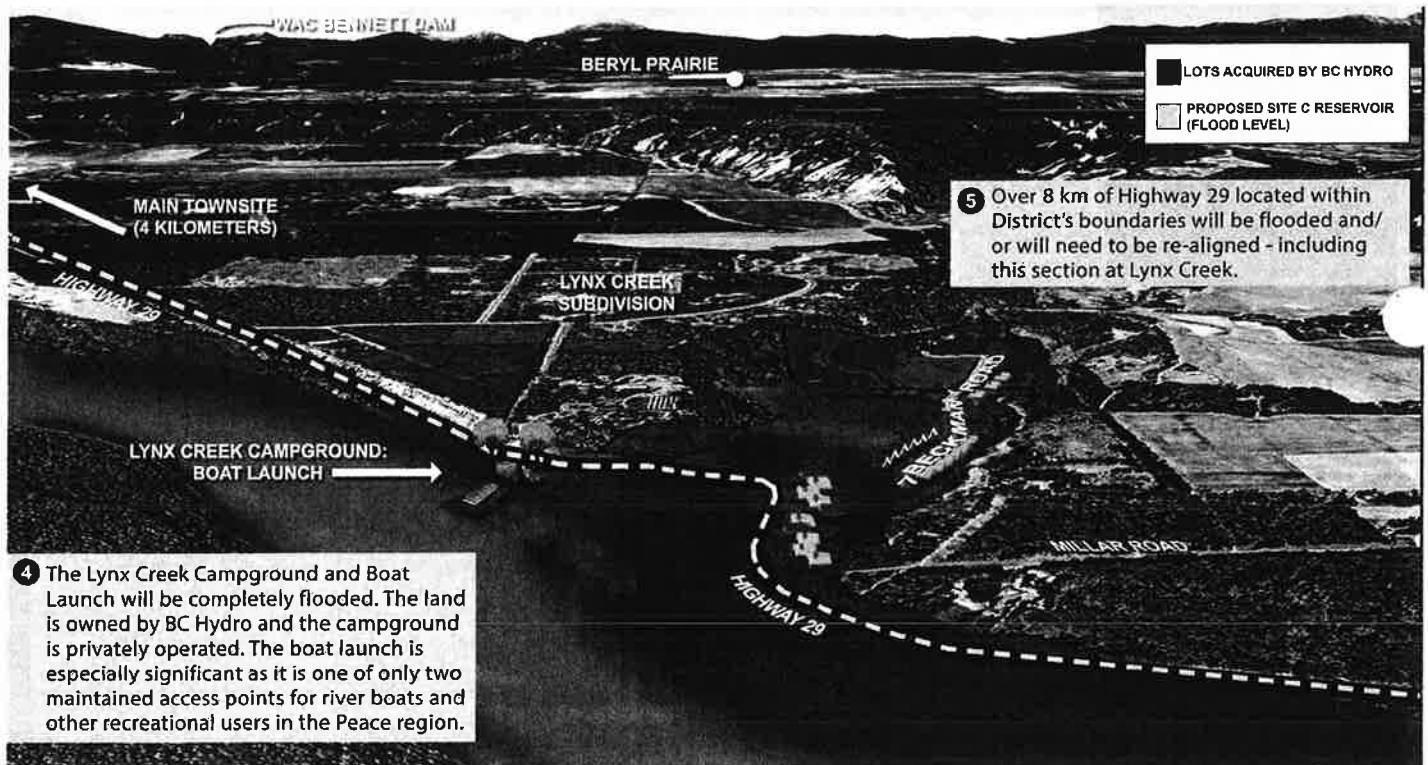
ALL AND SINGULAR that certain parcel or tract of land and premises situate, lying and being in the Peace River Assessment District, in the Province of British Columbia, and more particularly known and described as:

22337  
114 26  
✓  
South-west Quarter (SW<sup>1</sup>/<sub>4</sub>) of Section Ten (10), Township Eighty-two (82), Range Twenty-five (25), West of the Sixth Meridian (W6M), containing by admeasurement One Hundred Sixty (160) acres more or less, EXCEPT Lot One (1) Section Ten (10), Township Eighty-two (82), Range Twenty-five (25), West of the Sixth Meridian (W6M), Peace River District, Plan 23479. Except Plan 21821

for Plan 23479 Survey Dept.

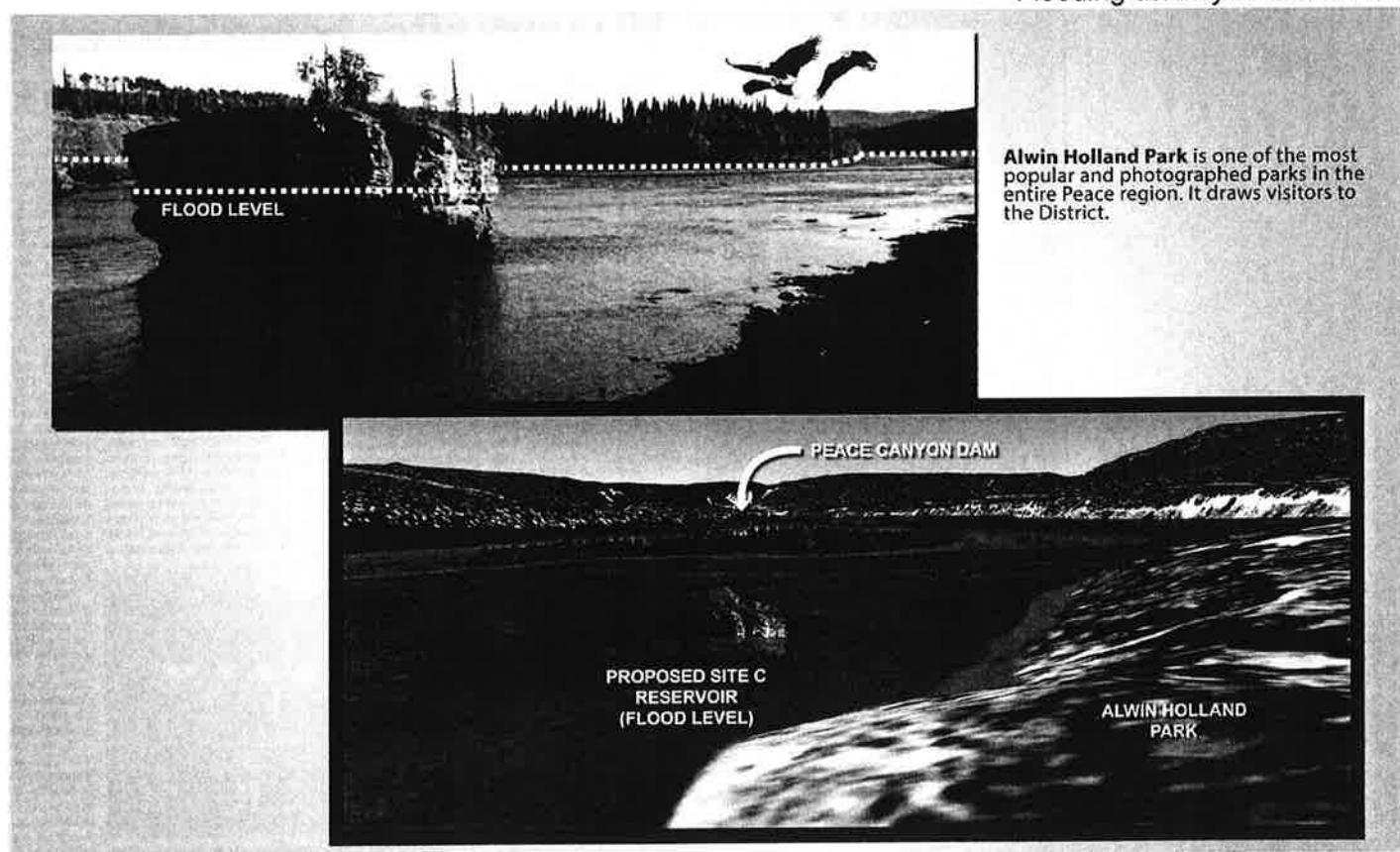
## Flooding at Lynx Creek

29 residential lots near Lynx Creek with valley views will be completely flooded by the new reservoir. These lots are subdivided but are currently vacant because BC Hydro has already acquired the land and houses have been removed. The flooding of these lots will make it difficult to service land east of Lynx Creek in the future.



**FIGURE 2**

# Flooding at Alwyn Holand Park



**FIGURE 3**

"The only newspaper in the world that gives a tinker's damn about the North Peace."



### FINALLY —

Robert and Ethel Beattie were finally rewarded Friday, when at 2 p.m., B.C. Hydro hooked up power to their home. Although WAC Bennett had promised it to them years ago, the couple have been living without power for nearly 30 years.

Tania Wilson photo

## 30 years after being relocated, Hudson's Hope family gets power

TANIA WILSON  
For the Alaska Highway News

**Hudson's Hope**  
Living within site of the WAC Bennett Dam, and a stone's throw away from Williston Lake, is a family who for the last 30 years has been forced to supply their own electricity. This period of "powerlessness" finally ended for the Beattie family of Hudson's Hope at 2pm on Friday, October 20th, when BC Hydro completed hookup and turned on the Beattie's power.

The Beattie family once maintained a profitable business of farming, freighting, guiding and trapping at the mouth of the Dunley River until 1962, when BC Hydro told them they had to move because of the construction of the WAC Bennett Dam.

BC Hydro had been granted a water licence to build a dam and store water in an elevation up to 2200 feet above sea level; this meant some residents of the valley would be displaced. An area above the flood level, on the mountainside along the north side of lake, was allocated as a resettlement area. For the most part, the area has remained without permanent homes, as the high elevation and mountainside location was not comparable to valley land for farming, so it was difficult to make a living. Also, the amount of compensation paid was not sufficient to build new homes.

The Beattie family business was wiped out, Elizabeth Beattie (mother) who had run the family business in partnership with her sons could not move to the "resettlement area", located eight kilometres from the dam, and make a living.

Bob Beattie, eight miles downstream from the original homestead on his own farm, yielded

**"Premier Bennett promised that they would receive power from the dam when and if they needed it. It was part of the land exchange deal."**

— Mary-Lou Beattie  
relative of Elizabeth

to the sell pressure, at an shockingly low price (approximately one-third of true value).

On top of that, a promise was made to Elizabeth Beattie when she agreed to sell her land and move, which the family believed would be honored, but it took 30 years for the family to see any action.

"WAC Bennett invited Elizabeth Beattie to be present at the opening of the dam in 1968," said Mary-Lou Beattie, wife of Elizabeth's son Jim. Premier Bennett promised that they

would receive power from the dam when and if they needed it ... it was part of the land exchange deal." But when Jim Beattie requested hook up in 1982, the family was told if they wanted power, they had to pay for it.

During the past 13 years, Mary-Lou Beattie has written countless letters to BC Hydro, the provincial government and Tony Brummett, when he was the MLA for Peace River, asking "if this was a promise that was made, why couldn't it be kept?"

The Beatties were particularly frustrated when Hydro ran power lines out to the end of the paved road, 3 miles from the Beatties' farm, to provide power for a camp located there, but would not run the lines a little further up the road for the Beatties, said Ethel Beattie, wife of

Bob Beattie. "And then they pulled down the lines, the poles and took it all away when the camp was finished," she added.

"Hydro's main reason for refusing to provide electricity was that the promise wasn't a valid one, and there was little they could do especially as all the people involved have died," Mary-Lou explained.

"It was only in the last year and-a-half that any progress has been made," said Mary-Lou. "When Gwen Johansson (Hudson's Hope municipal council) began fighting for us, she contacted Anne Edwards (Minister of Energy) and Hydro's board of directors.

In response to the promise wasn't valid, and all the people involved had died, Mary-Lou produced a "pioneer lady in Hudson's Hope who attested to the fact that WAC Bennett did make that promise, she was there, and wrote a statement to that effect."

Approximately six months ago, BC Hydro made a last ditch effort to avoid providing access to electricity for the Beatties.

"Hydro offered to pay for diesel generators to provide electricity ... it was a rather ludicrous thing," Mary-Lou said. The family has been using generators for years to provide power.

Hudson's Hope Municipal Councillor, Gwen Johansson believes it is a shame it took so long to get power to the Beatties home.

"The dams provide about one-third of the province's power, and it is Williston Lake which gives Hydro its flexibility, it's a big storage area which they can manipulate easily," said Johansson. Yet it took thirty years to get power to people living eight kilometres from the dam.



The cheers went up when an employee of B.C. Hydro turned on the power at the home of Robert and Ethel Beattie.







**HUDSON'S  
HOPE**  
PLAYGROUND OF THE PEACE

## Natural Resource Activity Overview Map

Provincial Park/Protected Area  
 First Nation Reserve

### Oil & Gas

Spectra Pipeline  
 Major Gas Pipeline (Proposed)  
 Minor Gas Pipeline  
 Well Site/Facility  
 Major Gas Plant  
 Major Water Line  
 Approved Water Withdrawal Location (Section 8)  
 Temporary Work Camp (Known)  
 OGC Waste Disposal Site

### Coal

Coal Mine Tenures  
 Proposed Coal Project Area  
 Initial Mine Site Location (Proposed)

### Electricity

Wind Farm Area (Proposed)  
Existing BC Hydro Transmission Line (Existing)  
 Proposed Site C Reservoir  
Maximum Flood Impact Line (Erosion, Wave, Flood...etc.)

### Roads

Highway  
 Local/Rural Resource Roads

### NOTE:

Location of Oil & Gas, Electricity, and Coal data is approximate only. The location of many features were estimated based on hard-copy maps.

Source:  
BC Hydro, Spectra and cadastral data provided by ICIS, March 2013.

Oil and Gas Commission, coal/mineral tenure and well data provided by the Land and Resource Data Warehouse, March 2013. OGC Facilities were adjusted by Urban Systems to align with other datasets.

Imagery provided by Google Earth Pro.

BC Hydro impact lines were digitized from PDFs found on BC Hydro's website.

THE ACCURACY & COMPLETENESS OF INFORMATION SHOWN ON THIS DRAFTING IS NOT GUARANTEED. IT WILL BE THE RESPONSIBILITY OF THE USER OF THE INFORMATION SHOWN ON THIS DRAFTING TO LOCATE & ESTABLISH THE PRECISE LOCATION OF ALL EXISTING INFORMATION WHETHER SHOWN OR NOT.

# FIGURE 4

## 9. Impacts to Hudson's Hope – YouTube Video

<http://youtu.be/br4GVMqAwMw>

## Two Funds

BC Hydro's Site C project has two funds to deal with communities: **Legacy Fund** and **Mitigation Fund**.

### LEGACY FUND:

The Legacy is recognition for hosting the dam and reservoir during its 100+ year operating phase. It comes into effect after construction, once the dam and reservoir are on-line.

### MITIGATION FUND:

Is to reduce impacts or to make up for what is lost.

Covers things like replacement of Hudson's Hope water intake or creating a downtown berm to protect shoreline. It is negotiated by each community separately.

Hudson's Hope is still negotiating mitigation as of August 2013.

This leaflet is about the Legacy Fund

The Peace River Regional District (PRRD) negotiated a Legacy for the Regional District. It is in the form of a "Term Sheet"

## What IS a Term Sheet?

- It IS an "agreement to agree."
- It IS NOT an enforceable contract
- It sets out general terms of what would be in a future contract.

## What's IN that Legacy Term Sheet?

- \$2.4 million dollars annually, for the entire region, starting when Site C comes on-line: earliest 2022.
- Indexing starts in the second year of operation.
- The first payment will be in 2013 dollars, whether it begins in 2022 or sometime far into the future.
- Payments are for 70 years – not the life of the operation.
- The distribution formula is based on 60% population and 40% service impacts.
- If the dam came on-line today, present population would give Fort St John 34.59%, Dawson Creek 13.02% and Hudson's Hope 10.99%. Remaining 41.4% would be split among Pouce Coupe, Tumbler Ridge, Chetwynd, Taylor and the Regional District.
- By signing, the parties agree that regional shared benefit issues of the region are resolved.

The PRRD communities outvoted Hudson's Hope to adopt the existing formula.

## HUDSON'S HOPE DID NOT SIGN THIS TERM SHEET

Hudson's Hope Council rejects the Peace River Regional District's Term Sheet because it is unfair to Hudson's Hope. It benefits those who are not affected by the operation phase and punishes those who bear the cost.



## Why We Reject the Term Sheet

The Legacy Fund is to recognise the contribution made by the hosts of the project during its 100+ years of operation. The areas doing the hosting and paying the price in perpetuity for this operation phase are Hudson's Hope and the rural valley areas. The PRRD formula does not recognize this permanent contribution made by Hudson's Hope for provincial benefit. It gives the bulk of the benefit to those with no or minimal contribution during the project life.

Some of what Hudson's Hope would give up:

- Land (see amount below)
- Prime waterfront properties
- Unique Valley settings
- Significant Section of Alwin Holland Park (The Glen)
- Wildlife habitat & migration corridors
- Established infrastructure costs (water & wastewater treatment costs are expected to be higher, due to project)

BC Hydro supplied the following figures regarding impacts within the District of Hudson's Hope:

Lost to flooding	603 hectares / 1490 acres
Highway realignment	66 hectares/163 acres
Statutory Right of Way	1037 hectares/2562 acres

No permanent structures are allowed on a Right of Way.

Some 30 residences have already been removed from land and many more will be lost should the project proceed. The Hydro-owned properties where development may have occurred stand empty.

Every year the dam operates represents a lost opportunity for Hudson's Hope to use that land for homes, businesses, and other endeavours.



## PRRD Distribution Formula

The distribution formula would be recalculated every year and 60% is based on population. If it came into effect today, Hudson's Hope would get 10.99%.

**BUT...**

...by the time Site C is operating and distribution of this fund begins, our percentages would have dropped because the population of other communities (ities) would have increased significantly more than Hudson's Hope. If we project payments over the 70 years, Hudson's Hope's share steadily diminishes.

**The PRRD formula offers Hudson's Hope only a tiny, diminishing fraction of an already small amount of money over a 70 year time period.**

**We need a formula based on impact, not population.**

**No other City or Municipality will sacrifice so much, permanently, for having Site C produce electricity for the province**

## What Council is Doing

- We are investigating and exploring all options.
- We are doing our best to inform Hudson's Hope people of the issue by distributing this leaflet, directing people to information on the Hudson's Hope website, discussing it with groups and asking people's opinion.
- We have invited BC Hydro President and CEO, Charles Reid, to a community supper in Hudson's Hope to meet the people and talk about our issues.
- We are explaining our situation to media, government, BC Hydro, citizen groups and anyone interested.

## How important is this to you?

**Should we assign resources to seek a better settlement or accept what has been offered and move on?**

Go to [www.hudsonshope.ca](http://www.hudsonshope.ca) and follow the Site C Legacy links to see more detailed information such as the complete Term Sheet, the PRRD/Hydro press release, letter templates, addresses to send letters to, the District of Hudson's Hope's booklet entitled *Proposed Site C: Impacts on Our Community*, and much more.

## HUDSON'S HOPE Site C Legacy



**Q. What legacy benefit would Hudson's Hope get if Site C were built?**

**A. Very little if the Regional District formula remains unchanged.**

# **Taxes and Grants in Lieu for Hydroelectric Facilities in British Columbia**

Prepared for:

**District of Hudson's Hope**

Prepared by:

**Dave Read  
Aspen Communications Ltd  
aspencom@telus.net**

**September 2010**

## **Introduction:**

The District of Hudson's Hope encompasses two of the largest generating facilities in British Columbia: the WAC Bennett Dam/GM Shrum Generating Station/Williston Reservoir and the Peace Canyon Dam/Generating Station/Dinosaur Lake complexes. Hudson's Hope hosts the local BC Hydro employee population as well as the various contractors and supply businesses that support the operations and maintenance of these two facilities. The community also hosts some temporary staff and outside contractors that come to undertake specialized work and major overhaul and upgrade projects at the dams. However in recent years some BC Hydro employees have not been replaced in Hudson's Hope and are dispatched from other locations. This is an issue currently being addressed with BC Hydro.

While BC Hydro is central to the local economy, the BC Hydro's facilities are exempt from taxation, unlike in other communities where local government services are supported by industrial taxation of mills and other facilities. The District receives a Grant in Lieu payment from BC Hydro however this does not approximate the revenue that would be received from taxation of the facilities.

Hudson's Hope is currently faced with aging infrastructure – most notably the community water supply – and is facing large costs to address the issues as the risk of failure of this system increases. The District now finds itself in a difficult financial situation. In looking for options to ease the financial burden to residents, the District has commissioned this research to examine the BC Hydro grant in lieu.

## **Approach to the Research:**

This report looks at the structure and calculation of the BC Hydro Grants in Lieu for hydroelectric generation facilities with particular attention to how this has been applied to the District of Hudson's Hope.

For comparison, owners of other major hydroelectric facilities in BC were identified and listed.

Information on taxes and grants was obtained by internet research and by direct contact with BC Hydro, the BC Ministry of Finance, and several local governments.

The major hydroelectric facility owners identified for this comparison are:

Columbia Power Corporation: A provincial crown corporation which co-owns with Columbia Basin Trust three hydroelectric facilities in the Columbia watershed.

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

Rio Tinto Alcan: A publicly owned company which owns and operates the Kenney Dam, Nechako Reservoir and Kemano generating station.

FortisBC: A publicly owned company which owns four dams and generating stations on the Kootenay River south of Nelson. (FortisBC is the successor to West Kootenay Power.)

Teck Resources Ltd: A publicly owned company which owns one dam and generating station on the Pend d'Oreille River south of Trail, BC. (Teck Resources is the successor to Cominco Ltd.)

BC Hydro: A provincial crown corporation which owns and operates most of the hydroelectric capacity in BC.

## Comparison of Tax and Grant Treatment:

Columbia Power Corporation and Columbia Basin Trust: Columbia Power Corporation is a BC crown corporation established to co-own three hydroelectric facilities in the Columbia region. The joint venture partner in these projects is the Columbia Basin Trust. The Columbia Basin Trust is governed by a Board which includes appointees from each of the five Regional Districts in the Columbia Basin, plus an appointee of the Ktunaxa Tribal Council and appointees recommended by the Province. (However all board members must reside in the basin.)

In 1996 the joint venture partners purchased the Brilliant Dam and 125MW powerhouse located on the Kootenay River near Castlegar. In 2002 the partners completed construction of the 185MW Arrow Lakes Generation Station, which uses the flow through the Keenleyside Dam. In 2007 the partners completed construction of the 120MW Brilliant Expansion project to better utilize the flows through Brilliant Dam.

The Brilliant Dam, which was previously in corporate ownership and subject to full property taxation, continues to be taxed at normal rates. This 125MW facility paid \$303,472 in 2010 taxes. This total was comprised of \$181,008 to the Central Kootenay Regional District, \$ 82,379 to the City of Castlegar and \$40,085 for Rural Policing.

The Brilliant Expansion and Arrow Lakes Generating Station projects pay Grants in Lieu on the same scale as BC Hydro projects. These amounts in 2009 were \$147,840 and \$227,920 respectively. It is noteworthy that the Columbia Power Corporation Annual Report identifies the tax liabilities for these projects would be in the range of \$3 million and \$6 million if they were fully taxed. Note that these amounts would include taxation to the Province.

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

Rio Tinto Alcan: Rio Tinto Alcan owns the Kenney Dam – Kemano Generating Station complex which was built in the 1950's primarily to supply power for Alcan's smelter located in Kitimat. Legislation enabling the project exempted it from property taxation. However in 2009 the Province agreed to pay Grants in Lieu for this facility on the same scale as applies to BC Hydro. These grants are paid to the Regional District of Bulkley Nechako (60%) and the Regional District of Kitimat-Stikine (40%). Note the grants are not paid by Alcan, rather they are paid by the Province of BC.

FortisBC: FortisBC is the owner of four dams and generating stations originally built by Cominco Ltd on the Kootenay River south of Nelson. Later these assets were held by West Kootenay Power and now by Fortis. These dams were built in the 1940's and have always been fully taxed. Formerly in the Central Kootenay Regional District, they have been within City of Nelson municipal boundaries since 2004. At the time of the boundary expansion Supplementary Letters Patent limit the amount of taxes to what would have been charged if the properties had remained in the Regional District.

The total capacity of the four projects is 235MW. They are included in the Utility Property Class with a total Assessed Value of \$84 million. In 2010 the City collected \$344,405 municipal tax levy and \$38,198 police tax levy. The Central Kootenay RD also retains taxation rights for services in place prior to the boundary expansion. The amounts requisitioned by the RD are not available at the time of writing this report.

Teck Resources Ltd: Teck Resources owns the 450MW Waneta Dam and generating station located in the Central Kootenay Regional District, which is used primarily to supply the Teck industrial complex at Trail, BC. The facility is subject to full property taxation. The property is assessed under two different classes: Utilities at \$5,557,000 and Major Industry at \$50,397,000. Taxes paid to the Central Kootenay RD in 2010 total \$737,864.

In 2009 Teck proposed the sale of 1/3 of the Waneta facility to BC Hydro. At the time the Regional District of Kootenay Boundary made a presentation to the BC Utilities Commission identifying a potential loss of tax revenue should the sale proceed and a portion of the tax amount be converted to the Grant in Lieu scale of payments. As of this date that issue is still unresolved.

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

### Summary of Tax or Grant Treatment for Hydroelectric Facilities:

Owner & Facility	Facility & MW Capacity	Tax or Grant to Local Government	2009/10 Payment
Columbia Power Corp/Columbia Basin Trust	Brilliant Dam - 125 MW	Tax	\$303,472
	Brilliant Expan.- 120MW	Grant in Lieu	\$147,840
	Arrow Lakes - 185MW	Grant in Lieu	\$227,920
Rio Tinto Alcan	Kenney Dam/Kemano 900MW	Grant in Lieu (paid by the Province)	\$1,057,800
FortisBC	Four generating stations on Kootenay River - Total 235MW	Tax	\$382,603 to City of Nelson + additional tax to Regional District
Teck Resources	Waneta 450MW	Tax	\$737,864
BC Hydro	Various	Grant in Lieu	Various see Appendix A

### **BC Hydro Grants in Lieu:**

BC Hydro is exempt from taxation on all of its plant and properties. Grants in Lieu for generating facilities were first introduced in 1989 and are paid to local governments. The original amounts were based on \$500 per megawatt (MW) of generating capacity which was phased in at 50% (i.e. \$250/MW) in 1989 and then applied at the full rate in 1990.

The original approach was to index the grants to increases in BC Hydro rates, however beginning in 1993 there were no rate increases for over ten years, so an alternate formula was developed for indexing. Beginning in 2007 a new policy and schedule for payments was implemented. In the process, the grants were restructured into three "Tiers."

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

### The Ministry of Finance provided the following explanation of the Grants in Lieu Policy:

- *For 2007, the base year for the new policy, grant amounts for all municipalities and regional districts were calculated as follows.*
  - *The generating capacity of the facility was apportioned as follows:*
    - *Tier 1: up to 400 MW*
    - *Tier 2: over 400 MW to 800 MW*
    - *Tier 3: over 800 MW*
  - *The generating capacity in each Tier was then multiplied by the rate below as applicable:*
    - *Tier 1: \$1,160.00 per MW*
    - *Tier 2: \$ 860.58 per MW*
    - *Tier 3: \$ 561.16 per MW*
  - *The amount of the grant to be paid in respect of the generating facility was then apportioned to the municipality or regional district that is the host of the facility and the municipality(ies) or regional district(s) that is impacted by the facility. The host receives 40 percent of the total grant amount. All impacted municipalities and regional districts (this can include the host) share the remaining 60 percent of the grant amount. The percentages are historical.*
- *In each year after 2007, the amount of the grant to be paid to a municipality or regional district equals the total amount of the grant paid in the previous year, increased by the increase in total municipal property tax revenues.*

*The 2010 Grants in Lieu are approximately \$1420 for Tier One, \$1053 for Tier Two and \$686 for Tier Three. The Grants are currently indexed based on year-over-year changes in the total municipal property tax revenue in British Columbia. (E.g. the 2010 grants are increased 6.99% over 2009.)*

*The generation grants in respect to a particular generating facility are distributed with 40% to the host community (i.e. the local government jurisdiction in which the facility is located) and 60% to the "impacted" jurisdictions. The formula for distribution to the impacted jurisdictions is set by the Ministry of Finance. For Bennett Dam/GM Shrum, 40% is allocated to the District of Hudson's Hope as host community and the remaining 60% is allocated amongst District of*

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

*Mackenzie (28.76%), Peace River Regional District (21.95%), District of Hudson's Hope (5.28%) and Fraser Fort George Regional District (4.01%). For the Peace Canyon facility, the District of Hudson's Hope receives the entire grant as both the host and impacted community.*

- The maximum annual grant that can be paid to any one municipality or regional district, with the exception of Hudson's Hope, is \$616.19 per resident (based on the most recent Census Canada information available). If, in any given year, the total grant amount available to a municipality or regional district exceeds this cap, the amount in excess of the cap is redistributed on a pro rata basis to the other municipalities or regional districts also impacted by the facilities in respect of which the grant is paid. No municipality is currently near the cap (except Hudson's Hope which is outside the cap).*

### Hudson's Hope Grant in Lieu Calculation

- Subsequent to the announcement of the new grant-in-lieu policy, but prior to payment of the grants in 2007, an adjustment was made to the amount of the grant to be paid to Hudson's Hope. Hudson's Hope was no longer subject to the cap and the amount of the grant to be paid to the municipality was increased to \$869,103.*
- As a result of the adjustment made to the grant amount paid to Hudson's Hope in 2007 the cap no longer applies to grants paid to Hudson's Hope. Hudson's Hope is the only community to which the cap does not apply.*
- The balance of the total grant amount that would have been available to other jurisdictions impacted by the G.M. Shrum facility if the cap had been in place for Hudson's Hope (about \$930K) was redistributed to those jurisdictions as though the cap was still in place. The jurisdictions are District of Mackenzie, Peace River Regional District and Fraser-Fort George Regional District.*
- In each year after 2007, the amount of the grant to be paid to Hudson's Hope will equal the total amount of the grant paid to the municipality in the previous year, increased by the increase in total municipal property tax revenue.*

	2008	Increase	2009	Increase
Hudson's Hope	\$923,347	6.24%	\$994,416	7.70%



## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

The Ministry of Finance was unable to provide information on the original rationale or purpose of the Grants in Lieu, nor did it provide any information on the rationale for the population based cap.

One anomaly occurs in the Grants in Lieu policy as it applies to BC Hydro. Because BC Hydro does not own generating stations at the Keenleyside Dam/Arrow Reservoir facility or for the Duncan Dam and Reservoir, no grants are paid for either dam, even though there are significant impacts of reservoir operations. (Note that in 2002 the Columbia Power Corporation/Columbia Basin Trust completed the Arrow Lakes Generating Station which is associated with Keenleyside Dam and CPC/CBT pays a Grant in Lieu as detailed above.)

BC Hydro also pays a Grant in Lieu of 1% of revenue to municipalities (based on annual revenue within municipal boundaries) and a similar grant to the Province for unorganized areas. This grant is the same as paid by other utilities which provide natural gas, telephone and cablevision services. For land and buildings owned by BC Hydro, the company pays Grants in Lieu equal to full taxation.

In 2006, as a result of representations made by the District, the Ministry of Finance agreed to review the grant paid to Hudson's Hope. It is significant to note that the timing of this coincides with the introduction of a revised scale for calculating the Grants in Lieu for all communities to address the fact that no indexing had occurred for several years. In a letter to Mayor and Council (attached as Appendix C) the Ministry described an adjustment to the grant. The letter indicated that Hudson's Hope had been the only community to which the population based cap applied and indicated that the grant would be increased 35.75% for 2007. The letter went on to explain that *"This adjustment reflects the increase in the total grants available for Peace Canyon and Shrum generating facilities. In principle, this increase is consistent with the increases other communities with power generating facilities will receive under the new formula."* While the increase in the grant was significant, the increase to Hudson's Hope was consistent with the increase for all other communities and the actual allotment to Hudson's Hope was still constrained, although not by the population based cap described by the Ministry.

The actual grant in lieu to the District of Hudson's Hope in 2007 was \$869,103.

The following illustrates how the grant would be calculated according to the formula set by the Ministry, and how it would differ from the actual grant.

Taxes and Grants in Lieu for Hydroelectric Facilities in BC

Bennett/GM Shrum – 2730 MW:

-First 400MW @ \$1160	\$464,000.
-Next 400MW @ \$860.58	344,232.
-Additional 1930MW @ \$561.16	<u>1,083,038.</u>
Total	\$ 1,891,270.

Peace Canyon – 700MW:

-First 400MW @ \$1160	\$464,000.
-Additional 300MW @ \$860.58	<u>258,174.</u>
Total	\$722,174.

According to the formula set by the Ministry of Finance for allocation of the grant in lieu for Peace River facilities, the District of Hudson's Hope would have received in 2007:

-40% of Bennett/GMS as host:	\$756,508.
-5.28% of Bennett/GMS as impacted community:	99,859.
-100% of Peace Canyon as both host and impacted community:	<u>722,174.</u>
Total	\$1,578,541.

According to the indexing formula set by the Ministry, the grants increased as follows for the subsequent years:

2008:	6.24% increase
2009:	7.70% increase
2010:	6.99% increase

The following table summarizes the grants in lieu as per the Ministry formula and the actual grants received by the District of Hudson's Hope and the difference.

Year	Actual Grant	Grant per Formula	Difference
2007	\$ 869,103	\$ 1,578,541	\$ 709,438
2008	923,347	1,677,041	753,694
2009	994,445	1,806,173	811,728
2010	1,063,957	1,932,424	868,467
Total	\$ 3,850,852	\$ 6,994,179	\$3,143,327

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

Actual 2010 grants in lieu for the Peace River hydro facilities are as follows:

-Hudson's Hope:	\$1,063,957.	
-Mackenzie:	1,266,290.	
-Peace River RD:	966,450.	
-Fraser-Fort George RD:*	582,242.	*Includes an amount for Mica/Kinbasket)
Total:	\$3,878,939.	

## Related Findings:

Tax Treatment for Independent Power Producer projects: Recent years have seen an increase in generation resources built and owned by IPPs. These include thermal, wind and hydroelectric facilities, all of which are subject to full property taxation. There is a school tax exemption for some of the improvements of qualifying IPPs.

Columbia Basin Trust: The Columbia Basin Trust (CBT) was established by the Province in 1995 to compensate residents of the region for the impacts of the construction of hydroelectric dams on the Columbia River. The original endowment was \$295 million plus annual payments of \$2 million for fifteen years. The CBT has made a number of strategic investments in hydro electric generation projects in the Kootenays, including the Arrow Lakes generating station at Keenleyside dam and the Brilliant Dam and Brilliant Expansion project on the Kootenay River. The CBT holds 50% interest in these projects which ensures a lasting revenue stream that should escalate in value over time. According to the CBT Annual Report, income from power projects in 2008/2009 totalled \$18,891,000. When income from other investments is included, total CBT income for the year was \$24,117,000.

The income from the Trust's investments is being spent on a wide selection of social, economic and environmental benefits for residents of the basin. There are a number of programs available through the Trust including the Arts Culture and Heritage Program, Family Literacy Program, Community Development Program, Community Initiatives Program, Environmental Initiatives and Land Conservation Program, a number of youth oriented programs, bursaries and scholarships.

In 2008/2009 the CBT disbursed \$9 million in direct funding benefits to residents and communities in the Columbia Basin. While the CBT does not normally fund "pipes and pavement" types of local government infrastructure, the grants that support other local

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

government services and initiatives clearly frees up funds that can then be spent on "pipes and pavement".

The Peace River region has never received an endowment comparable to the Columbia Basin Trust to compensate the region for impacts of hydroelectric development.

Payments to First Nations: Two First Nations, have successfully negotiated agreements with the Province of BC and BC Hydro which are intended to address impacts created by the construction and operation of the WAC Bennett Dam and Williston Reservoir. These agreements are in place for as long as power is produced at the Bennett Dam.

A 2008 agreement with the Kwadacha First Nation provides an initial payment of \$15 million and annual payments of approximately \$1.6 million, adjusted for inflation. The Kwadacha First Nation includes 445 band members, although not all live in the community near Williston Reservoir.

A 2009 agreement with the Tsay Keh Dene First Nation provides an initial payment of \$20.9 million and annual payments of approximately \$2 million, adjusted for inflation. The Tsay Keh includes 417 band members, although not all live in the community on Williston Reservoir.

Mica Creek Townsite: While most BC Hydro facilities are integrated with organized communities, there are some exceptions. Most notable in relation to this research is the community of Mica Creek, located near the Mica Dam and generating station. Mica Creek townsite includes several homes, a staff house, bunk houses, two kitchens operated by a catering firm, a firehall, recreation centre including a gym, swimming pool with hot tub and sauna and a curling rink. The community accommodates BC Hydro employees, contractors and suppliers and also provides accommodation and services to non-hydro related workers such as forestry workers. The estimated average population receiving services is less than 100. The nearest community is Revelstoke, 135 km to the south. Mica Creek is a BC Hydro property and all services are provided as part of BC Hydro's operating and capital budgets. No figure is available for the total cost to BC Hydro of operating this community.

Other BC Hydro contributions to communities: BC Hydro's presence in a number of communities has included building and operating a number of recreation sites. In Hudson's Hope this includes the boat launch at Elizabeth Creek. BC Hydro also constructed the Dinosaur Lake campground, however the operation and maintenance has been the responsibility of the District of Hudson's Hope since about 1990. For

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

comparison, BC Hydro operates the Mackenzie's Landing campground at Mackenzie, and other campgrounds at Gun Creek and Seton Lake on the Bridge River system, Pend d'Oreille River near Trail, Jones Lake in the lower mainland and Strathcona Dam on Vancouver Island. As well BC Hydro operates over a dozen other picnic and recreation sites and boat launches associated with its reservoirs.

## Key Points and Conclusions:

A number of key points and conclusions are evident from analysis of the Grant in Lieu policy and comparisons to other hydro electric facilities.

### Comparison to Taxation:

- The majority of hydroelectric facilities in BC are exempt from property taxation and pay a grant in lieu to local governments based on a scale developed by the Ministry of Finance. The only exceptions are six older plants in the Kootenays which are subject to taxation. Five of these plants are in corporate ownership (versus crown ownership) and the sixth was grandfathered into the taxable group when it was purchased from corporate interests. Independent Power Producers are also subject to property taxes.
- Current examples of taxable properties do not provide an adequate yardstick for estimating the tax levy that might apply to other hydroelectric facilities. Property assessments for Teck Resources and FortisBC properties appear very low; however these are 60+ year old projects. Columbia Power Corporation, indicates in its 2008/2009 Risk Management Report that the tax liability for the Arrow Lakes Generating Station and Brilliant Expansion Project, which are modern plants, would be approximately 25 times the current grant in lieu payments. Although this is assumed to include provincial property taxes, it is evident that property taxes would exceed the current scale of grants in lieu by a very large factor.

### Grants in Lieu as applied to Hudson's Hope:

- The Ministry of Finance states that the population based cap does not apply to Hudson's Hope since 2006, however the District still receives substantially less than it would according to the grant in lieu scale set by the Ministry. Under application of the Grant in Lieu policy as described by the Ministry of Finance, the District of Hudson's Hope would have received \$\$1,932,424. in 2010. The actual

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

grant was \$1,063,957. The Ministry has not provided an explanation or rationale for the obvious constraint that is applied in practice.

- The Ministry states that *"No municipality is currently near the cap (except Hudson's Hope which is outside the cap.)"* The Ministry also states that *"Hudson's Hope is the only community to which the cap does not apply."* However, in fact Hudson's Hope is the only community where the amount of grant paid is constrained and substantially reduced from the amount calculated per the Ministry of Finance scale. The Ministry has not provided an explanation or rationale for treating Hudson's Hope differently than all other local governments that receive grants in lieu for hydroelectric facilities.
- The effect of the cap since 2007 is to increase the grant to the other impacted communities by the amount that would result from application of the population based cap for Hudson's Hope. As a result of this aspect of the policy, the other local governments in the Peace Basin received an additional \$930,000 in 2007, with indexing in subsequent years. This redistribution increases the total grants paid by BC Hydro, and also results in an apparent imbalance in the grants received by local governments in the Peace Basin. For example, the grants to the District of Mackenzie exceed the grants to Hudson's Hope by nearly 20%. This clearly does not meet the intent of the distribution formula set by the Ministry which states that Hudson's Hope would receive 45.28% of the Bennett/GMS grant while Mackenzie would receive 28.76%, and Hudson's Hope would receive 100% of the Peace Canyon grant. The Ministry has not provided an explanation for the rationale that supports this evident imbalance.
- The City of Port Moody received a grant in lieu of \$1,072,710 in 2010 for the Burrard Thermal Generating Station. Port Moody receives a larger grant than Hudson's Hope, for a facility which rarely operates and then only when permitted by a number of constraints imposed by legislation and local regulations imposed by the local governments in the region. Hudson's Hope hosts two facilities that account for approximately one-third of BC Hydro's electricity production and receives a smaller grant.
- The December 2006 letter from the Ministry of Finance suggests that the Ministry is responding to Hudson's Hope's concerns about the grant in lieu policy and states the grant in lieu will be increased by 35.75%. It then further states that *"this increase is consistent with the increases other communities with power generating facilities will receive under the new formula."* While this appears to have exempted

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

Hudson's Hope from the population based cap applied previously, in fact Hudson's Hope received the same percentage increase received by other communities and ***the increase was calculated based on the previously capped amount***. If Hudson's Hope was to be exempt from the cap, the increase would have been added to the amount Hudson's Hope would have previously received without the cap.

- The formula for indexing grants in lieu has provided annual increases well above the general rate of inflation, e.g. 6.24% in 2008, 7.70% in 2009 and 6.99% in 2010.

### Other Relevant Comparisons:

- The benefits provided by the Columbia Basin Trust to communities in the Columbia Basin are substantial and well documented. No similar treatment is applied for communities in the Peace Basin.
- First Nations receive substantially higher payments to address impacts of the Bennett Dam and Williston Reservoir than do local governments. The annual payments to Kwadacha and Tsay Keh Dene are approximately \$3600 and \$4800 per capita respectively. The annual payments are in addition to initial payments of \$15 and \$20.9 million. Taking the average of these per capita amounts and applying that to the Hudson's Hope population of 1100 would result in annual payments to the District of \$4.6 million.
- All municipal type services in the Mica Creek townsite, associated with Mica Dam and Generating Station, are paid from BC Hydro budgets.
- BC Hydro pays for operation and maintenance of campgrounds and recreation sites in many locations associated with its generating facilities. In Hudson's Hope, the District is responsible for all operation and maintenance costs at Dinosaur Park and Campground.

Taxes and Grants in Lieu for Hydroelectric Facilities in BC

Appendix A: Summary of BC Hydro 2010 Grants in Lieu

	A	B	C	D	E	F
1						
2	Municipality or			2010	2009	2008
3	Regional District			Payment	Payment	Payment
4	Anmore			\$ 52,425	\$49,000	\$ 45,497
5	Belcarra			\$ 9,178	\$8,578	\$ 7,965
6	Campbell River			\$ 245,873	\$229,622	\$ 213,205
7	Castlegar			\$ 42,754	\$39,961	\$ 37,104
8	Coquitlam			\$ 61,552	\$57,531	\$ 53,418
9	Hudson's Hope			\$ 1,063,957	\$994,445	\$ 923,347
10	Lillooet			\$ 68,163	\$63,710	\$ 59,155
11	Mackenzie			\$ 1,266,290	\$1,183,559	\$ 1,098,941
12	Maple Ridge			\$ 9,977	\$9,325	\$ 8,658
13	Mission			\$ 280,124	\$261,823	\$ 243,104
14	Nakusp			\$ 4,139	\$3,869	\$ 3,592
15	Nelson			\$ 303,065	\$283,265	\$ 263,013
16	Northern Rockies			\$ 69,584	\$65,038	\$ 60,368
17	Port Edward			\$ 65,323	\$61,055	\$ 56,690
18	Port Moody			\$ 1,072,710	\$1,002,626	\$ 930,943
19	Revelstoke			\$ 1,742,463	\$1,628,622	\$ 1,512,184
20	Valemount			\$ 218,380	\$204,113	\$ 189,520
21						
22	Alberni-Clayoquot R.D.			\$ 39,762	\$37,164	\$ 34,507
23	Capital R.D.			\$ 241,412	\$225,640	\$ 209,508
24	Central Coast R.D.			\$ 2,841	\$2,655	\$ 2,465
25	Central Kootenay R.D.			\$ 597,994	\$558,925	\$ 518,965
26	Columbia Shuswap R.D.			\$ 1,126,958	\$1,053,330	\$ 978,022
27	Comox Valley R.D.			\$ 34,083	\$31,856	\$ 29,578
28	East Kootenay R.D.			\$ 27,610	\$25,806	\$ 23,861
29	Fraser Valley R.D.			\$ 93,319	\$87,222	\$ 80,986
30	Fraser-Fort George R.D.			\$ 582,242	\$544,202	\$ 505,294
31	Kootenay Boundary R.D.			\$ 989,438	\$924,795	\$ 858,677
32	North Okanagan R.D.			\$ 8,520	\$7,963	\$ 7,394
33	Peace River R.D.			\$ 966,450	\$903,309	\$ 838,727
34	Skeena-Queen Charlotte R.D.			\$ 9,940	\$9,291	\$ 8,627
35	Squamish-Lillooet R.D.			\$ 935,828	\$874,887	\$ 812,151
36	Strathcona R.D.			\$ 90,885	\$84,947	\$ 78,874
37	Sunshine Coast R.D.			\$ 46,863	\$43,801	\$ 40,669
38	Total			\$ 12,369,902	\$11,561,735	\$ 10,735,129



**Appendix B: Grants in Lieu Policy (as provided by Ministry of Finance - August 17, 2010)**

- In 2006 the Minister of Finance announced a new grant-in-lieu policy, effective for the 2007 taxation year.
- The method for calculating grants-in-lieu paid by BC Hydro in respect of its generation facilities was revised to provide greater transparency as to the method, and greater certainty for municipalities and regional districts as to the amount of the grant they would receive each year.
- For 2007, the base year for the new policy, grant amounts for all municipalities and regional districts were calculated as follows.
  - The generating capacity of the facility was apportioned as follows:
    - Tier 1: up to 400 MW
    - Tier 2: over 400 MW to 800 MW
    - Tier 3: over 800 MW
  - The generating capacity in each Tier was then multiplied by the rate below as applicable:
    - Tier 1: \$1,160.00 per MW
    - Tier 2: \$ 860.58 per MW
    - Tier 3: \$ 561.16 per MW
  - The amount of the grant to be paid in respect of the generating facility was then apportioned to the municipality or regional district that is the host of the facility and the municipality(ies) or regional district(s) that is impacted by the facility. The host receives 40 percent of the total grant amount. All impacted municipalities and regional districts (this can include the host) share the remaining 60 percent of the grant amount. The percentages are historical.

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

- In each year after 2007, the amount of the grant to be paid to a municipality or regional district equals the total amount of the grant paid in the previous year, increased by the increase in total municipal property tax revenue calculated as follows.

- $$\frac{\text{the amount of the grant paid to the municipality or regional district in the previous year}}{\text{the total municipal property tax revenue collected 2 years prior to the year in which the grant is to be paid}} \times \text{the total municipal property tax revenue collected 3 years prior to the year in which the grant is to be paid}$$

- **total municipal property tax revenue** is determined as follows.

- Access the following Ministry of Community Services site:  
[www.cserv.gov.bc.ca/lgd/infra/statistics\\_index.htm](http://www.cserv.gov.bc.ca/lgd/infra/statistics_index.htm)
- In the index, access "Tax Rates & Tax Burden". Select the relevant year. Access "Total Taxes and Charges". The title of the spreadsheet is "703 Total Taxes and Charges for all Property Classes".
- The total amount of municipal property tax revenue collected is the total of columns:
  - "E" General Municipal Total (property value taxes);
  - "K" Total Parcel Taxes; and
  - "L" Total Specific Area and Local Improvement Taxes.

- The maximum annual grant that can be paid to any one municipality or regional district, with the exception of Hudson's Hope, is \$616.19 per resident (based on the most recent Census Canada information available). If, in any given year, the total grant amount available to a municipality or regional district exceeds this cap, the amount in excess of the cap is redistributed on a pro rata basis to the other municipalities or regional districts also impacted by the facilities in respect of which the grant is paid. No municipality is currently near the cap (except Hudson's Hope which is outside the cap).

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

### Hudson's Hope Grant in Lieu Calculation

- Subsequent to the announcement of the new grant-in-lieu policy, but prior to payment of the grants in 2007, an adjustment was made to the amount of the grant to be paid to Hudson's Hope. Hudson's Hope was no longer subject to the cap and the amount of the grant to be paid to the municipality was increased to \$869,103.
- As a result of the adjustment made to the grant amount paid to Hudson's Hope in 2007 the cap no longer applies to grants paid to Hudson's Hope. Hudson's Hope is the only community to which the cap does not apply.
- The balance of the total grant amount that would have been available to other jurisdictions impacted by the G.M. Shrum facility if the cap had been in place for Hudson's Hope (about \$930K) was redistributed to those jurisdictions as though the cap was still in place. The jurisdictions are District of Mackenzie, Peace River Regional District and Fraser-Fort George Regional District.
- In each year after 2007, the amount of the grant to be paid to Hudson's Hope will equal the total amount of the grant paid to the municipality in the previous year, increased by the increase in total municipal property tax revenue.

	2008	Increase	2009	Increase
Hudson's Hope	\$923,347	6.24%	\$994,416	7.70%

### Appendix C: Ministry of Finance Letter – December 2006:

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

28-30 June



DEC 15 2006

168748

Her Worship Mayor Lenore Harwood  
and Members of Council  
District of Hudson's Hope  
9904 - 100th Avenue  
PO Box 330  
Hudson's Hope BC V0C 1V0

Dear Mayor Harwood and Members of Council:

The Honourable Carole Taylor, Minister of Finance, has asked me to respond to your letter of November 27 and your recent phone conversation with her regarding grants for power generating facilities.

The Minister appreciated the issues you raised with respect to the province's long standing grants-in-lieu policy. Since 1989, grants have been based on an amount per megawatt of capacity and a complex formula has been used to allocate the grants among communities impacted by each generating facility. For many years, this has included a cap on the maximum grant that a community could receive.

In practice, since the inception of the grant program, Hudson's Hope has been the only community in which the cap has had an impact, due to the very large generating facilities and relatively small population in the community.

As discussed, based on the concerns you have raised, the government is willing to reconsider the original grant proposal for Hudson's Hope. In light of the unique circumstances faced by your community, we are prepared to adjust the grant for Hudson's Hope in order to make it more comparable to the grants received by communities elsewhere in British Columbia.

For 2007, the grant will be increased by 35.75 percent from the 2006 level. This adjustment reflects the increase in the total grants available for the Peace Canyon and Shrum generating facilities. In principle, this increase is consistent with the increases other communities with power generating facilities will receive under the new formula.

.../2

Ministry of  
Finance

Office of the  
Deputy Minister

Mailing Address:  
PO Box 9417 Stn Prov Govt  
Victoria BC V8W 9E2  
[www.gov.bc.ca/fm](http://www.gov.bc.ca/fm)

Location Address:  
Room 109  
617 Government Street  
Victoria BC

## Taxes and Grants in Lieu for Hydroelectric Facilities in BC

- 2 -

As a result, under the revised calculation, Hudson's Hope will receive a grant of \$869,103 in 2007, an increase of \$228,881. As with other grant receiving communities, future grant payments will now be indexed to changes in total municipal property tax revenue.

The government is confident that the new approach I have outlined will meet the needs of your community.

Thank you for bringing your concerns to the government's attention and please do not hesitate to call if you have further concerns.

Sincerely,



Tamara Vrooman  
Deputy Minister

pc: Honourable Ida Chong  
Minister of Community Services

Honourable Richard Neufeld, MLA  
Peace River North

Honourable Blair Lekstrom, MLA  
Peace River South

Union of British Columbia Municipalities

Peace River Regional District

Mark Poweska  
BC Hydro

## THE DISTRICT OF HUDSON'S HOPE

**REPORT TO:** Mayor Johansson and Council

**SUBJECT:** 2014 UBCM Honourable Steve Thomson, Minister of Forest, Lands, and Natural Resource Operations Meeting

**DATE:** 9:20 - 9:35, Thursday, September 25, 2014

**FROM:** Tom Matus, CAO

---

Mayor Gwen Johansson, Councillors Dave Heiberg and Kelly Miller, and I met with Minister Steve Thomson and four of his aides: Deputy and Assistant Deputy Minister.

We discussed the Site C project. Items of note we broached are as follows:

- 1 Minister Thomson and Minister Polack would be the ministers signing-off on the project on behalf of the BC government should it be approved;
- 2 The need for the project has not been established;
- 3 No ability to assess the cost;
- 4 Capacity of BCUC, established in 1980: it has the framework;
- 5 There are a number of alternatives;
- 6 BCG allows LNG to burn gas but not its own corporations?;
- 7 JRP report noted this project needs more analysis;
- 8 GIL: moneys split within the PRRD;
- 9 District of Hudson's Hope rural areas are hosting the Site C project;
- 10 District of Hudson's Hope treated badly by the Leagcy Term Sheet;
- 11 but Columbia Trust and PRRD treated quite well;
- 12 no investments unless security of tenure;
- 13 agriculture loss.

The Minister noted that he could not comment on Site due to his position in assessing the BCG's position. He accepted our issues and will take them into consideration.

Attached, please find the Brief we submitted to the Minister.



---

Tom Matus, CAO

**MEETING WITH:**

**THE HONOURABLE  
STEVE THOMSON**

**MINISTER  
OF FOREST, LANDS AND  
NATURAL RESOURCE  
OPERATIONS**

**UBCM – WHISLTER, BC**  
**9:20 – 9:35, Thursday, September 25, 2014**

District of Hudson's Hope Attendees:

Mayor Gwen Johansson

Councillor Dave Heiberg

Councillor Kelly D. Miller

CAO Tom Matus

**Location: Black Tusk Room, Lower Level, Hilton Hotel (4050 Whistler Way, Whistler, BC)**

Page 1 of 4

The District of Hudson's Hope representatives: Mayor, Gwen Johansson; Councillor Dave Heiberg; Councillor Kelly Miller and CAO Tom Matus, would like this opportunity to discuss with the Honourable Steve Thomson the following issue:

### **1. Water Wells / Water Quality:**

Council has been receiving reports from its residents within the District of Hudson's Hope, especially the Beryl Creek area that water wells have been failing, and that some wells have been receiving deposits of soot starting three years ago when fracking was going on at that time within the District of Hudson's Hope.

We ask that your Ministry prepare studies on the effects of fracking on water wells and water quality within the District of Hudson's Hope as soon as is reasonably possible?

We bring your attention to Living Water Smart:

"B.C.'s water is essential to our quality of life. Impacts of climate change, our growing population and vibrant economy means that we need a different approach to water management.

Living Water Smart provides government's vision for sustainable water stewardship. This vision will be achieved through actions and targets that include:

Keeping water in mind when we develop our communities, protecting sources of drinking water and strengthening flood protection to adapt to climate change.

Ensuring wetlands and waterways will be protected and rehabilitated and land activities will not negatively impact our water.

Modernizing B.C.'s Water Laws to ensure adequate stream flows, ecosystem health, more community involvement, and protection of groundwater.

Setting strong water efficiency targets and working with all sectors to reduce water consumption.

Improving science and information so British Columbians can better prepare for the impacts of climate change."

### **2. Light Industrial Crown Reserve – Purchase And Or Of Lands Thereof**

We are beginning the process of applying for Provincial Crown lands for light industrial use and ask the Ministry to assist us in this process. We have been discussing this issue with the Ministry personnel and are grateful for their involvement and assistance, we wish that this assistance continue specifically in identifying any grant/funding opportunities to assist in developing this area and any other expertise the Ministry may provide in realizing a fruitful conclusion for the District of Hudson's Hope in this endeavour.





To describe the project located on:

A portion of land within 150 meters perpendicular from and running parallel to Highway 29 beginning at and extending from the southern boundary of NE ¼ of Section 19 TP81, Range 25 (which intersects with Hwy 29), extending through and along the south eastern boundary, of SE ¼ Section 30 TP81 Range 25, (abutting to and parallel to Highway 29), to the northern boundary, of the SW ¼ of Section 29 TP81, Range 25, (which intersects with Highway 29), as Light Industrial - a distance of approximately 1.5 kilometers within District of Hudson's Hope.

This land is generally flat, and typically ranges from elevation 514m – 516m on the lots. Current tree cover is very dense on conceptual Lots 12-18, and more open on Lots 1-11, note that some minor adjustment may be required to Lots 1-3, as the bottom of slope of a sand dune does encroach slightly. We would recommend changes be made to both improve the intersection alignments (at Powell Road and Jamieson Avenue) as well as modify several of the lot lines.

Next steps:

1. Perform several geometric improvements to the conceptual roadway alignments;
2. Calculate rough order of magnitude quantities and cost estimates;
3. Prepare a Crown Land Application report on behalf of the District;
4. Once land is acquired, assist the District with the Rezoning Process, and conceptual design process;
5. Prepare a Traffic Impact Study (TIS) as required by the Ministry of Transportation. This will be a condition of the rezoning application;
6. Once rezoning is obtained, assist the District with the subdivision application, layout phasing plan and the detailed design process as the Engineer-of-Record;
7. Following receipt of a PLA, prepare detailed probable construction cost estimates, prepare contract documents and issue the plans for tender to regional contractors;
8. Recommend a contractor based on bids received;
9. Proceed to construction and monitor the progress;
10. Following construction, facilitate the subdivision registration of lots at the LTO, thereby creating market-ready fee simple lots;
11. Prepare a marketing brochure for the District to issue to potential realtors or interested buyers.

A conceptual description and preliminary survey plan of this project is attached.

### **3. Parks & Open Space Tenure**

Presently, we have a Licence of Occupation for Community Forest needs which was affected in 2004, located on portions of Sec 30 TP 81, Range 25; Sec 29, TP81, Range 25; and Sec 19,

TP 81, Range 25 within the District of Hudson's Hope. We understand that the area is suitable for gravel quarrying. We further understand that while the area is suitable for quarrying gravel the restriction to prevent permanent non-use of the area is only for that purpose that would allow for the sale of gravel by the owner.

We plan to begin the application process to either purchase or to permanently reserve this area as an area restricted for Park use only. We look forward to the assistance from FLNRO in approving the aforementioned action.

**Industry Resource Development Compensation for Landowners/ Industry Resource Benefit in Beryl Prairie**

BC resources such as water and natural gas may be transported over long distances through pipelines and BC residents are frequently unable to access the resource being transported through their area in those pipelines. Cannot the province develop a system that enables BC residents to cost-effectively access resources which are being transported through their property?

**Background:**

Other jurisdictions, such as neighbouring Alberta, have developed a model which enables services such as natural gas, water, electricity or sewage disposal to be delivered to rural areas. According to the Alberta Ministry of Agriculture and Rural Development website, "Under the program, natural gas service has been provided to over 212,000 consumers through 74 participating utilities. Over 131,000 km of natural gas pipelines have been constructed, making it the largest rural gas pipeline system in the world." Alberta's success has been through legislation which facilitates co-operatives with as few as five members to provide a delivery service. BC's present system has not been as successful as Alberta's in providing these services to rural areas. Alberta's system may or may not be the model BC wishes to adopt; however, some changes are needed in order to allow rural British Columbians to access and make use of their own resources.

We thank you for taking the time to meet with us and we look forward to further dialogue in the near future with you and your Ministry on the above matters.

Mayor, Gwen Johansson  
Councillor Dave Heiberg  
Councillor Kelly D. Miller  
CAO, Tom Matus

July 31, 2014

File: 0664.0015.14-X

District of Hudson's Hope  
9904 - 100th Ave  
P.O. Box 330  
Hudson's Hope, BC V0C 1V0

**Attention: Tom Matus, CAO****RE: District of Hudson's Hope Industrial Subdivision Concept**

Hudson's Hope is in need of industrial land for development. Through discussions with staff and Council, Urban Systems was asked to prepare a concept for an industrial development along Highway 29 between the Jamison Avenue road allowance and the parcel to the east of Powell Road.

The attached plan shows the concept that has been generated based on discussions with the District. In general the concept includes:

- +/- 1.0 Ha lots along a new frontage road fronting Highway 29. These lots have been noted to include a 20 m buffer zone along the front of the lots to provide a visual break from the highway.
- Frontage road connection to Highway 29 at the Jamison Avenue road allowance and Powell Road. This plan indicates the Taylor Avenue Road allowance would be closed.
- A watermain extension to provide fire protection and water services from the current water system extents at Jamison Avenue. Please note that the water pressures and flows were not analyzed as part of this exercise. As the main is a dead end and at the extents of the current system, the District will need to ensure adequate pressure is available from the existing reservoir/pump station. Please also note, the watermain has been shown along the frontage of the proposed lots. This is necessary to provide access to fire hydrant connections necessary for the development parcel.
- It has been assumed that onsite septic can be accommodated for the properties. If this is not possible from a geotechnical standpoint, a connection to the sewage treatment plant is feasible but, would be difficult and add significant costs to the project. The attached plan indicates a sewer line and a connection to the existing lagoons. The challenge with this would be getting under the highway and down a significant embankment to the lagoon site.
- 3 Phase power is available along the highway. A connection to this line and individual lot connections would be required to service the lots. A secondary line along the access road may also be required.

Date: July 31, 2014  
File: 0864.0015.14-X  
Attention: Tom Matus, CAO  
Page: 2 of 2



While this layout is currently just a concept, the anticipated servicing costs for the development are as indicated in Table 1. These values have been estimated based on the preliminary drawings, typical area construction costs, and a contingency amount of approximately 40%. This does not include any lot development costs.

The intersection costs have been assumed at \$500,000 each. This would include the addition of left turn lanes heading north on Highway 29 and a right hand turn out lane heading south into each entrance. No provisions for traffic lighting have been included. These details would need to be confirmed and discussed with the Ministry of Transportation. If a simple intersection without turning lanes is permitted this cost would be significantly less.

Table 1: Infrastructure Estimates

Item	Cost
Road Improvements	\$ 2,000,000
Highway Intersections (2)	\$ 1,000,000
Watermain Extensions	\$ 1,100,000
Power and lighting	\$ 700,000
Connection to Sewer (if required)	\$ 1,500,000
<b>Total</b>	<b>\$ 6,200,000</b>

We hope that this concept and letter provide a preliminary review of the potential industrial development the District is looking for. If we can provide any other information or details on the concept please let us know.

Sincerely,

**URBAN SYSTEMS LTD.**

A handwritten signature in blue ink, appearing to read "E. Sears".

Eric Sears, P.Eng.  
Project Engineer

/eds

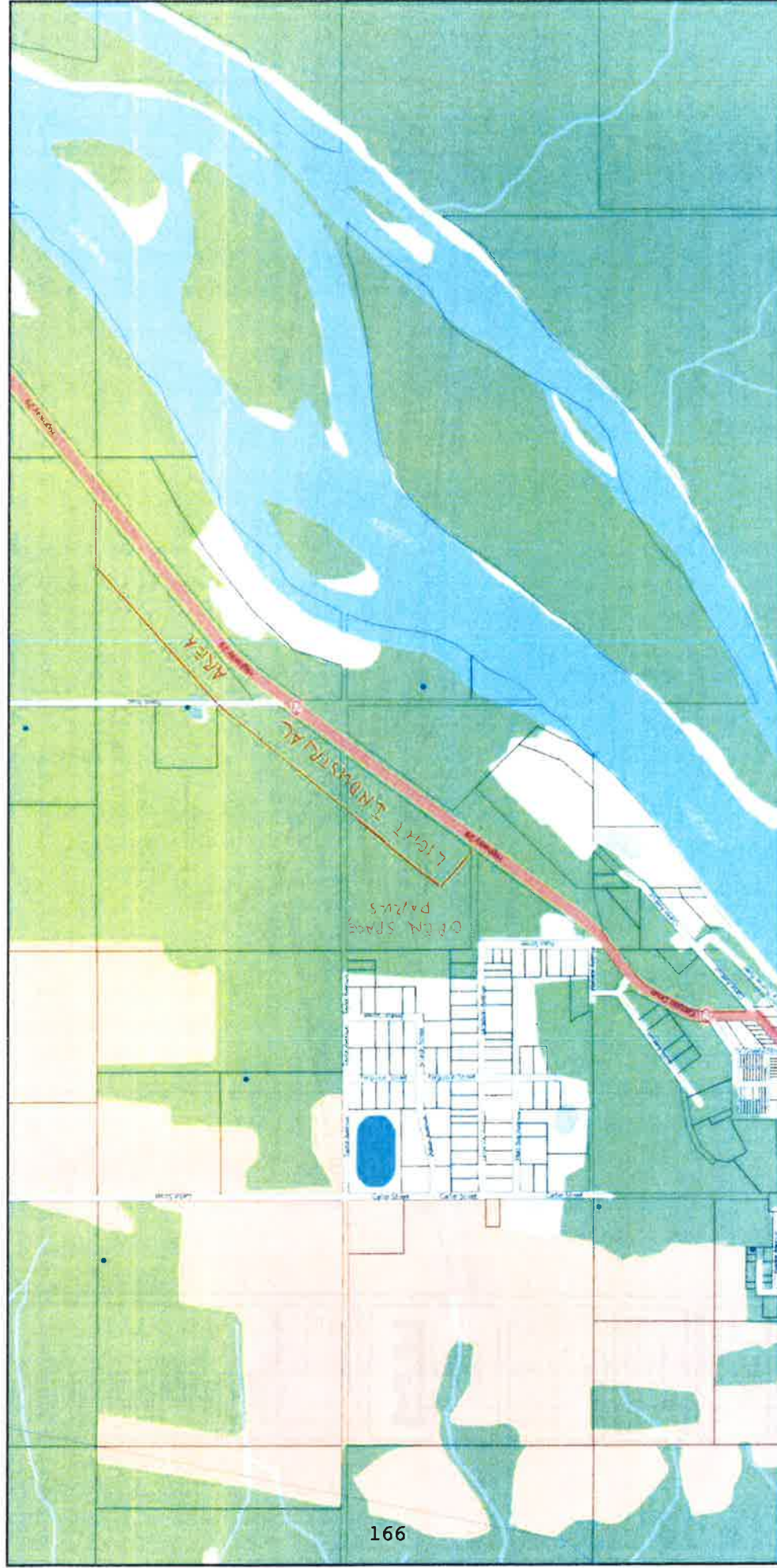
\\usd.urban-systems.com\projects\Project\_FS\0864001514\X-Single-FacIndustrial Development\2014-07-31 LTR Industrial Concept\T\_Matus.docx

[urbansystems.ca](http://urbansystems.ca)





# ICIS



Sources: USGS, FAO, NPS, EPA, ESRI, DeLorme, TANA, and other suppliers; © 2010 Microsoft Corporation and its data suppliers