Kitsumkalum Traditional Use Study
Interim Report for Pacific Northwest LNG/Petronas

Submitted by:

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EXECUTIVE SUMMARY

This interim report summarizes the written literature on the Kitsumkalum First Nation in regards to their traditional land use practices within their traditional territory. However, a majority of authors have discussed the Tsimshian more generally and this is reflected in the content of this document. The Tsimshian peoples have been extensively researched and documented over the last few centuries. Some of the most notable authors include Franz Boas, Viola Garfield, William Barbeau, William Beynon, and Henry Wellington Tate. A daily diary of Arthur Wellington Clah, the head of the *T'amks* house of the *Gispwudwada* clan also contributes to the written documentation of Tsimshian history. Contemporary writers include Jay Miller, Charles Menzies, James A. McDonald, Nancy J. Turner, and many others who have contributed to the understandings of the coastal nations. As such, the written history of the region is rich and colourful, but also complex and the vast amount of information often poses new questions, especially in terms of specific details on traditional use and occupancy. The impacts of colonization greatly impacted the Tsimshian peoples, as it did to Indigenous peoples around the world. However, a great deal of knowledge remains in the written and oral literature.

This interim report seeks to accomplish the following goals:

- identify gaps in existing knowledge and the limits of available data;
- evaluate the physical and cultural potential of the landscape;
- assess temporal changes to the landscape and the resulting impacts on settlement and subsistence patterns;
- formulate cultural land-use patterns;
- evaluate previous traditional land use studies;
- assess the integrity of the study area; and
- frame research or resource management objectives through an appropriate survey and sampling strategy.

Due to time constraints and the high volume of documents on the Tsimshian, the literature review will continue throughout the duration of the project to ensure a comprehensive portrait of use and occupancy is available for the purposes of the project, but also for the use of the Kitsumkalum and other Tsimshian villages as an educational resource.

STATEMENT ON TRADITIONAL KNOWLEDGE

Traditional knowledge (TK) and local knowledge was sought and encountered throughout every stage of this project. TK is referred to by many different names – traditional ecological knowledge (TEK), traditional ecological knowledge and wisdom, indigenous knowledge, indigenous ecological knowledge, Aboriginal traditional knowledge, etc. Berkes (1993) developed a commonly referenced definition of traditional ecological knowledge: TEK is a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission about the relationship of living beings (including humans) with one another and with their environment. Further, TEK is an attribute of societies with historical continuity in resource use practices that are

passed down from one generation to the next. For the purposes of this discussion, this field of knowledge will be referred to as traditional knowledge (TK).

The term "traditional" used in describing this knowledge does not imply that this knowledge is old or non-technical in nature, but "tradition-based." It is "traditional" because it is created in a manner that reflects the traditions of the communities, therefore not relating to the nature of the knowledge itself, but to the way in which that knowledge is created, preserved, and disseminated. TK is collective in nature and is often considered the property of the entire community, and not belonging to any single individual within the community.

Archaeological sites are traditional use sites (and therefore the pursuit of archaeological evidence is the pursuit of traditional use); but a traditional use site is not necessarily an archaeological site. For First Nations, there is no difference in "importance" between an archaeological site and a traditional use site or area (Budhwa 2006, Rabnett 2000:5-7; Nicholas 2006). For example, sacred grizzly habitat is as important to First Nations as a village site. Moreover, while there are traditional use "sites" and "areas", traditional use can only be understood in a larger context. The study of traditional use involves the study of geographic space and place and how cultures interact with such places and with the environment (Nicholas 2006).

The importance of obtaining traditional use and oral information cannot be over-emphasized within this assessment process. An archaeological site is the physical remains of an event of human activity and may only represent certain aspects of cultural activity, such as food gathering, processing and preservation (Rabnett 2000:5-7). Traditional use sites and areas are places of cultural importance where people generally performed all manners of activity (Budhwa 2005, 2006). The study of TK must involve an examination of the entire landscape and context is paramount for proper interpretations of culture (Budhwa and McCreary 2013). The concept of context is the very basis of sound scientific and anthropological practice. A proper understanding of any resource site (natural or cultural) is only achieved through a thorough and integrated holistic investigation that frames it within its proper context (Nicholas 2006: 350-355; 362-364). The combination and integration of modern science and First Nations interpretations of the physical world into this project has ensured this assessment remains holistic in its approach and take into consideration multiple perspectives and worldviews. In the last few decades, TK has been gathered in greater frequency to assist land-use decision-making and resource managers, as well as record and document invaluable information from Aboriginal elders who continue to practice traditional lifeways, such as language, oral histories, and seasonal rounds. In the last ten to fifteen years, TK has become an important component of many resource management processes, and even more so in recent years as landmark court cases (i.e. Delgamuukw-Gisdaywa, Haida Nation v. Weyerhaeuser, Taku Tlingit v. Tulsequah Chief Mine) have reinforced the importance of appropriate negotiations with First Nations people in resource-use practices that significantly impact their territories. Gathering, respecting, and incorporating TK is an important component of that process, as is integrating that TK with the western-scientific viewpoint predominant in resource management processes.

PROJECT OVERVIEW

Introduction

This study is in response to the need for Kitsumkalum First Nation (KFN) to contribute their knowledge of present, past, and anticipated future uses of their unceded territory on Lelu Island and a marine passage for a proposed liquefied natural gas terminal (Stantec 2014, 1). Kitsumkalum is an integral part of the Tsimshian Nation and has a strong connection through historic and current occupation and use of the Prince Rupert Harbour and surrounding coast (Kitsumkalum, 2013). The company, which is principally owned by the Malaysia government's Petroliam Nasional Berhad (PETRONAS) has proposed the Pacific NorthWest LNG Project (The Project), which intends to construct and operate the facility within Tsimshian Traditional Territories. The project expects to produce up to 19.2 million tonnes per year of LNG (Ibid, 1).

The project scope for the environmental assessment (EA) process includes a natural gas reception system; gas pretreatment; three 6.4 million tonnes per annum natural gas liquefaction trains; three full containment 180,000 m^3 LNG storage tanks; a marine terminal and berths with a trestle, trestle control room, two LNG carrier berths; shipping LNG (between the terminal and Triple Island pilotage station); a materials off-loading facility; an access road; pioneer dock; bridge (connecting the island to the mainland); and pipeline and utility connections (e.g., water and sewer). Gas turbines will be used to produce up to 1,100 MW of electrical and mechanical power (Stantec 2014, 1). The project will take place in two phases of construction that is expected to take approximately four years with the first phase of the project operational by early 2019 (Ibid, 1). It is estimated that the project will produce 5.28 million tonnes of CO_{2e} per year, which will increase provincial emissions by 8.5% (Stantec 2014, 23).

Petronas has partnered with TransCanada Pipelines Ltd. to build the Prince Rupert Gas Transmission pipeline from Northeastern BC to the proposed terminal. This pipeline will include 100-200 km of pipeline within the marine environment, namely, down the Nass River and along the coastline to Lelu Island. However, natural gas exploration, production, pipeline activities, and end product impacts are not included in the review requirements.
http://www.princerupertgas.com/wp-content/uploads/2013/09/Prince-Rupert-Gas-Transmission-Route-Map-March-2014.pdf

The Product

Natural gas is a fossil fuel that is found deep within the earth in shale beds and found in numerous places around the world. Gas is extracted from the earth by a process called hydraulic fracturing, where a high-pressure fluid mixture (water, sand, and chemical compounds) is blasted into the shale bed to create cracks, which allow oil and gas to be extracted.

The chemical composition of natural gas varies slightly by location but consists primarily of Methane (~95%) with slight percentages of ethane, propane, butane, pentane, hexanes, nitrogen, carbon dioxide, oxygen, and

hydrogen (Union Gas Limited 2014). While gas burns cleaner than coal, there are current debates on levels of emissions and leakage that this energy sector will produce in greenhouse gases. There are also concerns about the safety of natural gas as it is highly combustible. British Columbia (BC) is currently one of the only provinces requiring companies to report the chemicals included in the fracking process. More information on water use and fracking chemicals can be found at the BC Oil and Gas Commission's database: *FracFocus: Chemical Disclosure Registry* at www.fracfocus.ca.

After extraction, natural gas is transported to an LNG terminal, in this case by the proposed Prince Rupert Gas Transmission project's pipeline, where it is liquefied by cooling it to -162°C. Liquefying the gas reduces its volume by 600 times, making shipment more efficient. When it reaches its destination, it is then reheated into a useable form of gas.

The Study Area

The study area for The Project includes Lelu Island and the marine environments that may be impacted by a proposed Liquified Natural Gas (LNG) terminal and resulting tanker traffic. The project area would have a total size of approximately 263 hectares with approximately 160 hectares on Lelu Island, which would cover 83% of the island. The remaining 103 hectares would encompass the marine environment (Stantec 2014, 4). Other areas identified within the Tsimshian traditional territories are included in this study to assist in understanding the use and occupancy of their lands and waters.

Lelu Island can be found in Chatham Sound near the mouth of the Skeena River and directly across from Port Edward. It is a small, gently sloping, primarily undisturbed island that consists of large expanses of wetland (Stantec 2014, 4). This area will be flattened and cleared to be readied for industrial activity[1]. Concerned residents have noted the environmentally sensitive salmon estuary of Flora Bank, which is visible during low tide and rests directly adjacent to Lelu Island. Flora Bank consists of a large eelgrass population and is a major salmon habitat. Concerns about offsetting the wetlands and dredging of soil that will be removed are also identified as local concerns (Perry 2014). Title to the island is currently contested and is in negotiation between the Tsimshian Nations, the Province of British Columbia, and Canada. While the colonial and indigenous governments debate title, the Prince Rupert Port Authority who holds ownership through colonial law presently asserts control of the island. Until a treaty or a final declaration of title is realized, the outright assertion of ownership to the Island will remain under dispute as the Kitsumkalum and other groups of the Tsimshian Nation have never ceded or surrendered the lands in question (See Appendix 1). The presence of culturally modified trees (CMTs), shell middens, cabin sites, and burial sites are proof that Lelu Island and the surrounding area was utilized by the local Indigenous populations[2]. Pacific Northwest LNG conducted an archaeological inventory for Lelu island that documented 558 CMT trees on Lelu Island (Stantec 2014, 34). Further research into the oral history of the area may provide more in-depth evidence and reconstruct patterns of use. Moreover, a complete

[1] Video of Lelu Island Media Tour: https://www.youtube.com/watch?v=mYvyHBt2hgo.
[2] A recent study conducted by the proponent identified 558 CMTs on Lelu Island http://www.ceaa-acee.gc.ca/050/documents/p80032/98728E.pdf.

Archaeological Impact Assessment was recommended by Stantec (2014, 36). Currently, Kitsumkalum Is unaware of the results of any recent archaeological work and results conducted by the proponent, including the details surrounding the recovery of a stone tool.

Information that is provided which relates to areas outside of this Study Area has been, and will continue to be, collected and reported where it is deemed to be relevant by Kitsumkalum First Nation. Time constraints have not allowed for in depth community consultation, as such, information contained in this report is subject to change. These changes will be noted in the final report. The information contained within this document is property of Kitsumkalum First Nation, who are sharing this with Pacific Northwest LNG for the purposes of their Environmental Assessment Application.

Statement on Cumulative Impacts

While there are limits of project scope by the current assessment process, it is important to the Kitsumkalum to understand the full scope of impacts occurring within their traditional territories. Since colonization, the impacts of settlement, industry, and commercial enterprises have greatly impacted the lands and the ability to use the lands that the Kitsumkalum have utilized since time immemorial. Current practices of land management do not coincide with Indigenous practices, especially in terms of understanding the environment as a holistic, inter-dependent system of relationships that require balance, respect, and must be nurtured and restored for the use of future generations. In terms of the specific area being proposed, it is difficult to understand the impacts of just one of the many proposed facilities without looking at all of the other impacts on the island and other developments within the traditional territories. While this interim report and final report will focus on this proposed LNG project and its effects on Kitsumkalum's traditional uses and planned future uses of the land, it is necessary to include an analysis of the effects of all other projects within the regional study area in order to ensure a comprehensive and holistic review of all potential effects.

The neighbouring Ridley Island is currently occupied by existing, proposed, and approved industrial projects. Ridley Terminals Inc. includes a shipment terminal for coal and other bulk commodities and is currently undergoing an expansion project. The Prince Rupert Grain Terminal also operates on the island while the Ridley Island Log Sort is no longer in operation. The Prince Rupert Port Authority intends to expand the industrial development of Ridley Island into the "Ridley Island Industrial Park" which has been in the plans since 1977 (Stantec Consulting Ltd. 2011, 6-15). The Industrial Park will include the Ridley Island Rail and Utility Corridor consisting of a 7,818 m rail loop with capacity for 14 inbound tracks and 11 outbound tracks; a two-lane road paralleling the rail loop, and a new 3.4 km 69 kV power line which is currently under construction. The Canpotex Potash Export Terminal was recently approved and consists of a terminal, dredging sites, and export facilities. This facility was approved in March 2014 despite having significant adverse effects on the environment and Aboriginal use so long as the environmental impacts are mitigated. The Canadian Environmental Assessment Agency report stated that:

> Based on the analysis of the nature of the proposed Project and its predicated effects on the VECs, the Agency evaluated the potential for this project to have significant adverse impacts on the environment. This evaluation was completely based on technical information provided by the proponent, advice provided by federal and provincial experts, and comments provided by Aboriginal groups and the public through various consultation opportunities. The potential environmental effects of greatest concern identified during the comprehensive study process included the impacts resulting from disposal at sea of dredged material, the impacts to navigation, and the impacts on fish and fish habitat. Additional concerns related to on-site land disposal, impacts on whales from vessel collisions, effects on archaeological resources, and loss of wetlands (2012, i).

Environmental and Aboriginal impacts that were identified in the Canpotex study include the following:

Vegetation:

- Alaska holly fern and Gmelin's sedge, two rare vascular plants were identified on Ridley Island.
- A total of 69 ha of wetland will be lost.
- 15.6 ha of ecological communities of conservation concern will be lost, including one Red-listed wetland community, two Blue-listed wetland communities, and two Blue listed upland communities.
- A total of 36 ha of old forest and 47 ha of riparian area will be lost.
- Traditional use plants will be lost due to vegetation clearing.

Wildlife and Wildlife Habitat:

- SARA [Species at Risk Act] listed species used as indicator species: marbled murrelet, northern goshawk, and western toad.
- Bird species include winter wren, Swainson's thrush, Townsend's warbler, dark-eyed junco; less common species that were present include hermit thrush, northern flicker, Stellar's jay, and yellow warbler.
- Barns swallow was the only threatened species.
- Two bald eagle nests were located on Ridley Island.

Aquatic Environment:

- Disruption and loss of 265,550 m^2 of marine fish habitat.
- Areas of kelp and eelgrass habitat will be lost.

Archaeological and Heritage Resources:

- There are 15 culturally modified tree sites.
- There are 2 shell middens, one dated to almost 3,000 years old. Both sites have been severely disturbed or destroyed by previous developments.

First Nations Current Uses:

- Vegetative resources (e.g. bark, berries) will be affected and will either be removed or inaccessible.
- Marine resources (e.g. fish, shellfish) will be affected or inaccessible.

*****List adapted from (Stantec Consulting Ltd. 2011, ix-x, 6-8)***

With the proposed BG Group's LNG terminal and the current activities already approved and operating, the entire land base of Ridley Island will be developed as an industrial site. This will have a great impact on the environment and Indigenous title and rights. Consequently, this study is highly critical in the decision-making processes for the Kitsumkalum and cannot be looked at independently of the other developments on the coast.

Other projects in the Tsimshian traditional territories near Port Edward and Prince Rupert include:

- The Fairview Container Terminal (Operating)
- Northland Cruise Terminal (Operating)
- Atlin Cruise Terminal (Operating)
- CN Rail Line (Operating)
- Fairview Terminal Expansion (Under Construction)
- Westview Pellet Terminal (Under Construction)
- Prince Rupert Airport (Operating)
- Mount McDonald Wind Project (EA Underway)
- Pacific Northwest LNG Terminal on Lelu Island (EA Underway)
- Prince Rupert Gas Transmission Project (EA Underway)
- Mount Hays Wind Farm (Announced)
- Smith Island LNG on Smith Island or Porcher Island (Announced)
- Watson Island Development Corporation Seaport Terminal (Announced)
- North Coast Wind Power Project (Announced)
- Tsimshian Peninsula Project/Tuck Inlet Road –bridges to link Kaien Island Digby Island and the Tsimshian Peninsula (Announced)
- Skeena Cellulose Pulp Mill on Watson Island (No longer operating)

Other projects in coastal areas that will impact the marine environment of the Kitsumkalum include:

- Kitimat LNG Plant and Terminal (Under Construction)
- Northern Gateway Condensate Pipeline (EA Underway)
- Northern Gateway Crude Oil Pipeline (EA Underway)
- Douglas Channel Energy Project-LNG Plant and Terminal (Approved)
- Sandhill Aggregate Processing and Export Terminal (Approved)
- LNG Canada Facility-LNG Plant and Terminal (EA Underway)
- Harmony Gold Mine (Announced)
- Stewart Bulk Terminals (Announced)
- Port of Stewart Expansion (Announced)

****Adapted from (AECOM 2014, 63-64).**

The scope of the CEA Agency extends beyond the study area and includes:

- Management of greenhouse gas emissions
- Management of solid, liquid, and hazardous waste
- Air and water quality

- Odour, noise, visual quality, and aesthetics
- Human health
- Community health and wellness
- Health and social services
- Housing and accommodation
- Infrastructure, services, and utilities
- Transportation and traffic
- Emergency services and preparedness
- Employment and local business
- Local recreation
- Tourism and commercial recreation
- Commercial fishing and other marine uses
- Archaeological and heritage resources
- Introduction of invasive species
- Wildlife, wildlife habitat, and ecosystems (AECOM 2014, 13).

These aspects should be looked at as encompassing developments in the northwest and must involve the First Nations in the region, in order to work towards the better recognition of Indigenous Rights and Title and to ensure sustainable levels of resource development and economic activity while protecting the environment. Kitsumkalum is currently participating in the Pacific North Coast Integrated Management Area (PNCIMA), which is one of five areas in Canada to pilot integrated management planning. The Study Area for this project is included in the PNCIMA which consists of about 88,000 km^2 and extends to the Canada-Alaska border in the north, to Brooks Peninsula on northwest Vancouver Island, to Quadra Island and Bute Inlet in the south, and as far west as the base of the continental slope. The intent of the planning process is to:

1. Promote improved ocean management decisions based on understanding ecological, cultural and socio-economic characteristics including: community and cultural values; future uses and opportunities; and existing management and institutional arrangements.
2. Design an integrated marine use plan that: identifies shared values of the area, including environmental, economic, social and cultural values; identifies information gaps and needs; and results in ecosystem-based management.
3. Develop institutional arrangements, which bring together government, First Nations, user groups, and other interests to enter into agreements on oceans management.
4. Contribute to the social, cultural, and economic well-being of First Nations, other coastal communities and stakeholders by identifying with opportunities and development strategies (Coastal First Nations 2008, 3).

It is with this holistic framework that the Kitsumkalum must look at the current developments being planned in their territories. In understanding the current impacts upon the territories from colonization and the loss of the land base and resulting connections to traditional economies, cultural activities, community well-being and

one's sense of place, it is hoped that developers will begin to understand the issues that are currently being faced by the Kitsumkalum people.

KITSUMKALUM TRADITIONAL LIFE WAYS

Sense of Place

For Kitsumkalum, culture and knowledge are not things, but rather more of an ideological space composed of social and spiritual connections between animals, environments, and humans. The matrix of relationships within this physical and spiritual landscape defines their ways of being. Land and water are foundational to Kitsumkalum worldview and attention should also be directed to the concept of "sense of place". The definition and utilization of this concept can vary, however, it is loosely defined as "a feeling or perception held by people, to a certain place on the landscape" (Cresswell 2005). This "place" will possess a high degree of authenticity and a strong identity and character with a special meaning and relationship. Local inhabitants will naturally be inclined to protect or conserve such "places". Therefore, the loss of "sense of place" may have significant impacts on individuals and communities with connectivity to that place.

Perception of place between Western and Indigenous peoples is quite different. Geographers Windsor and McVey (2005) argue that contemporary modern society is "rootless" and "placeless" with a lack of meaningful bonds being established. This may be a result of the history of the New World, where Western culture has been one of "instability, migration and change". In contrast, Indigenous geographies are deeply interconnected with generations of experience and connection to the land. The stories, songs, and symbols of these histories continue to circulate within Indigenous communities (Budhwa and McCreary 2013). Indigenous landscapes, therefore, are composed of relationships with physical sites but also a set of cultural essences, intangible structures of belief, that tend to be difficult to bind to a particular location (Pearce and Louis 2008).

Cultural resource management needs to recognize space not simply as a container but also a constitutive element in human experience and social relations. Place exists in between the material and subjective, and serves an important role in the construction of identity as a subjective and embodied experience. The loss of distinct sense of place can have significant impact on individuals and communities with such connections.

Social Organization and Governance

The Kitsumkalum have lived on the northwest coast since time immemorial. Their traditional territory encompass the area around the lower Skeena River and throughout the archipelago of islands spilling out of its mouth (McDonald 1985, 30). In a recent report by the Kitsumkalum it is noted, "Although the village of Kitsumkalum is the specific locale of where we reside, for us 'Kitsumkalum' refers to the larger region that makes up our Traditional Territories. In this way we are tied to the lands and the lands are tied to us. They are part of where we come from and where we are going; they are who we are" (Kitsumkalum N.d. i). The Kitsumkalum peoples lived throughout the territories during much of the year following a seasonal round and harvesting the rich and abundant resources found on the coast. Winters were spent in semi-permanent village

sites or "tribes", each with their respective population, territories, and resource bases (McDonald 1985, 30). The Tsimshian had a complex social organization and were intimately connected to other tribes through marriages, adoptions, and the sharing of resources (Kitsumkalum 2013). Like many other northwest coast peoples, they structure their societies around the potlatch, *yaawk* or *luulgit*, which acts as their primary societal and political institution and represents their kinship, governance, laws, ceremonies, and economic structure. Boas and Garfield note that any important changes in social statuses and relationships were marked by a ceremonial feast (McDonald 1990, 105). The potlatch was banned by force of the Indian Act in 1885, which had detrimental effects on the feast and governing system of the nation. However, the ban was not able to fully undermine the process, and potlatching and feasting continue to this day.

The Tsimshian are a matrilineal-based society and descent is passed down through the mother's side where each individual is born into one of the four clans of the nation: Ganhada/Raven, Laxsgiik/Eagle, Gispwudwada/Blackfish, and Laxgibuu/Wolf (Miller 1998, 661). Boas (1924) states that, "The fundamental idea of exogamy of the matrilineal divisions underlies the organization of all these tribes" (Boas 1924: 324). Each individual had a "mother" clan as well as a "father" clan whereby each served different functions and roles in the lives of the individual. The mother clan identified the primary clan and house group, or *waap*, affiliations, and their associated rights and privileges that came with the land and resources owned by the house chief or *sm'oogit*. The father clan's role was to provide guidance and support to the individual. In olden days, the house groups were quite literally the longhouse in which the house members would live.

> Within these larger units Tsimshian remain organized on the basis of the household, once a distinct and decorated dwelling covered by adzed cedar planks. Each house owned a corpus of immortal names, passed down through that matriline, with the leading name serving as the title of the house chief, who had the sole right to recite its *adawx* - the dense, distilled, and concentrated essences of world-shaking and world-making events involved with that name (Miller 1998, 662).

That is, each chief has an *adawx*, which describes the creation of that name. Only chiefs were able to recite their *adawx*. Descriptions of each of these names are further explained in Miller (1998). Understanding the clan and house lineages and chief names will help us understand their land tenure better. Miller goes on to say that "names feed people: because each is firmly grounded in a portion of the landscape, conferring rights to all its resources.

> Tsimshian property concepts were sophisticated and organized through the feast. When European traders came and made new demands on the resources in the Tsimshian territories, the feast must have been instrumental in reorganizing the manner by which the resources and labour power was utilized (McDonald, 1985, 40).

These rights were and are witnessed and validated at public events to make them "legal" (Miller 1998, 671). When a name holder passed away, the name would be conferred to another mortal being who would then become the holder of that name and thus gain its privileges and responsibilities, namely to treat the name with respect by leading an honorable and generous life (Ibid, 671). Chiefs would gain power and prestige within the community by being able to both secure a wealthy bounty of foods and materials harvested from their

territories and then redistribute this wealth to their house members and witnesses of their feasts. For people attending the feasts and accepting the gifts given to them, this means that they accept the "business" going on at the potlatch, and that the activities therein then become part of the ongoing oral history.

The Kitsumkalum , along with the Kitselas, were the furthest east of the winter villages amongst the Tsimshian who would visit the coast during the winter months for harvesting resources (McDonald 1994, 156). The Kitsumkalum also exercised rights to sea resources and maintain important connections to coastal sites and communities (McDonald 2003, 14). The various houses owned the lands throughout the territories where they would assert their claims. Tsimshian law, or awaawx, provides for the recognition of common areas and "allows social groups to claim exclusive use and occupation of specific residential areas along the shore" (Kistumkalum 2013, 20). Conflict over territories resulted in "bitter fighting" that continued until victories, compromises, or intermarriages settled the dispute (Miller 1998, 667). Settlement feasts and land claims were ratified in the feast, but many times settlement included the gifting of "use" of the land and not outright "title" (Ibid, 668). Often land was transferred from one title-holder to another to settle disputes or wrongdoings. An example, is the story of Gitlan village, who gave their hunting grounds on the Zimacord river valley to the Kitsumkalum for compensation for the killing of *Niiyas Guoss*, a nephew of Chief *Wedeldow* of the House of *Lhagaax* (McDonald 1983). House groups would be able to gather food and trade goods from their traditional territories, which could be used for their own sustenance, feasting in the potlatch, or trading with other nations such as the Haida, Tlinget, Gitxsan, and Nisga'a (Miller 1998, 659).

Like other Tsimshian villages, Kitsumkalum was an independent community at the time of contact (McDonald 1994, 156). In the early years, the indigenous population participated in the newcomer's economy and traded traditional products like food, furs, and firewood in exchange for European goods (Menzies and Butler 2001, 41). However, as the capitalist economy became more entrenched and the Act of Union (1871) brought British Columbia into the Canadian Confederation, the traditional economy was undermined and restricted by the growth of the wage-based economy, the creation of reserves, missionary involvement, and assimilationist policies that restricted the Kitsumkalum from their traditional territories (McDonald 1994, 156-157). McDonald states, "The transfer was not orderly. There were no treaties or other forms of negotiation to reconcile differences between the Tsimshian and Canadian legal systems. One result was that Tsimshians and foreigners alike claimed many ancient sites for their respective, often fundamentally different purposes (Ibid, 156-157)". The everyday life of the traditional family and kin structured houses to the industrial capitalist economy had a differential impact on everyday life (Menzies and Butler 2001, 412). In fact, the transition from longhouses to single-family dwellings attacked their lifeways at one of its most pivotal points and undermined the social organization and systems of land tenure (Ibid, 414). These clashes continue today and the Tsimshian have been fighting for their cultural survival, title and access to their lands that have been appropriated.

TRADITIONAL KNOWLEDGE AND USE

Traditional Fishing

The fish harvest and trade of the Kitsumkalum has and continues to be the life-blood of their culture and is often attributed to the complex social organization of coastal nations. Many species of marine, fresh water, and anadromous fish were caught, as well as shellfish and occasionally whales (McDonald 1985, 128-129). The hereditary chiefs of the various house groups and villages owned fishing sites and resources. Pre-contact ownership patterns are difficult to reconstruct solely based on historical literature. However, it is clear that the ownership was complex and precise (McDonald 1994, 158). For example, Darling in 1954 writes that cod and halibut banks, sea lion and seal rocks, kelp beds, sea bird sites, and specific stretches of beach were owned by various house groups (McDonald 1994, 148). Today, the connection to resource ownership is still an integral component to the survival and function of the potlatch system (Ibid. 158). Without land and resources, any nation or society, is incapable of sustaining their peoples and it has been this limitation and restriction that has so greatly impacted the Kitsumkalum and other Tsimshian communities.

The Tsimshian had an extensive array of different forms of fishing technology including gaffs, clubs, traps, weirs, trolling hooks, drag seines, gill nets, tidal traps, spears, harpoons, dip nets, ice fishing bags, hooks on lines, and fish rakes (Ibid, 135). These technologies stemmed from thousands of years of interacting with and knowing the fishing resources and best practices in procurement. Traditional technologies were often a much more sustainable way to harvest as they allowed for selective harvesting by species, size, and sex, and was not conducted at the mass scale of commercial harvesting. After colonization, the use of traditional technologies was largely replaced with nets, rod and reel, and other contemporary fishing technologies. While some of these changes were embraced, legislative changes made through provincial laws outright prohibited the use of most traditional tools including fishing weirs, spears, and traps and also placed prohibitions, licensing requirements, and regulations on fishing (Ibid 139-140). At the turn of the century, conflicts over the fishery increased dramatically between the Indigenous peoples and newcomers and even resulted in military conflicts, canneries being built on top of fishing sites, and vandalism of fishing boats and traditional technologies (McDonald 1994, 158). Furthermore, in the early 1900s with the creation of reserves, 'Indians' had to ask permission to fish for food and later, regulations on how, when, and where fishing could occur were included (McDonald, 1985, 146). Amendments to the Indian Act in 1876 also made it illegal for people to leave the reserve or sell or produce goods without permission from an Indian Agent. While these oppressive components of the Indian Act have since been repealed, regulations and bans on fishing are still largely controlled by the state. A recent, and critical example of the dislocation of the Kitsumkalum from their traditional fishing sites actually stems from an assessment of a Potash facility on Ridley Island where the CEAA reported that:

> Although the project footprint [on Ridley Island] is already inaccessible because it is on federal lands managed by the PRPA [Prince Rupert Port Authority], the potential use of this site for harvesting vegetative and marine resources will be affected. Vegetative resources (e.g., bark, berries) will either be removed or inaccessible in the immediate Project area. Marine resources (e.g., fish, shellfish) in the intertidal and sub-tidal environments directly associated with the Project will also be affected or inaccessible. This includes resources affected during dredging and disposal activities. Since areas of marine fish habitat that are adversely affected by the project will be replaced through fish habitat compensation and since terrestrial resources are already inaccessible for harvesting purposes due to existing restrictions by the Prince Rupert Port Authority, the Project itself will not likely represent an

impact on the harvesting of marine and terrestrial resources (Canadian Environmental Assessment Agency 2012, 25).

The report states that the key Aboriginal and ceremonial fisheries that will be impacted near Ridley Island include: Pacific salmon, halibut, ling cod, herring, sole Dungeness crab, prawns, and bivalves (Canadian Environmental Assessment Agency 2012, 21). However, this project was approved without the consent of the Kitsumkalum/Tsimshian nation. Colonization cannot be a justification for further colonization and appropriation of Indigenous peoples lands and resources.

Anadromous fish were plentiful in the pre-contact times and are often attributed to the complex social organization of the coastal nations. Sockeye, coho, chum, spring, pink, and steelhead were fished in the Skeena River and its tributaries, the Zimagotitz and Lakelse rivers, were also cited as inland salmon fishing areas (McDonald 1985, 128). A recent study on the Kitsumkalum River Chinook states that every year that data has been collected, that is, since 1979, the Chinook (Spring) have been exploited at unsustainable levels (McNicol 1999, 2). The report also notes that logging, specifically log jamming in the rivers, disrupted and destroyed many spawning grounds (Ibid, 4). Coastal peoples have an extensive knowledge of this important fish that relates to fishing methods, habitat, preservation, and the use of salmon and other fish species in ceremonial life.

Eulachon is another staple of the local diet, either eaten whole or rendered down for grease. The Kitsumkalum fish for eulachon in the Skeena near tidal limits below Kwinitsa and in other tributaries of the Skeena such as the Khyex, Ecstall, Kasiks, and Scotia Rivers (McDonald 1985, 144; Rolston 2010, i). Kwinitsa is an ancient fishing site of critical importance. However, annual trips to the Nass River at Red Bluff were also made and a reserve was created for the Kitsumkalum in that area to allow them to continue their fishing after colonization (McDonald 1985, 144). The Eulachon fishery on the Nass attracted thousands of Tsimshian, Tlingit, Haida, and other Indigenous people to come together for the prized eulachon grease (McDonald 1985, 144). Eulachon grease is still a delicacy of their diet and a trade item with neighbouring nations. There are eulachon fishing spots closer to Kitsumkalum, however these sites are not often fished anymore due to high levels of industrial pollution that has led to a decline in quantity and quality (McDonald 1985, 129). Today, the eulachon is listed as an endangered species and it is of utmost importance to the Kitsumkalum cultural heritage to see the habitat of this fishery restored and further destruction halted[3].

Marine fish noted by Boas and Nolan include: cod, halibut, herring, cuttlefish, dogfish, porpoise, bullhead, devilfish, eels, flounders, red snapper, shrimp, and pilchard (McDonald 1985, 129). Archaeological evidence from an ancient village site in the Prince Rupert Harbour at McNichol Creek identified blue mussel, littleneck clams, butter clams, and basket cockles as the most abundant types of shellfish found, followed by horse clams, barnacles, and purple whelks (Coupland et. al. 1993, 66). Abalone is another prized food that has not been

[3] For a technical report on the status of the Eulachon fishery see Rolston, David 2010. *Final Report on 2010 Survey of Eulachon Adult Spawner and Egg Distribution in the Lower Skeena River and Tributaries. Kitsumkalum Fisheries Department.* http://awsassets.wwf.ca/downloads/kitsumkalum_final_report_on_2010_survey_of_eulachon_adult_spawner_and_egg_distributio.pdf, accessed April 17, 2014.

available to be harvested due to plummeting numbers of the shellfish from mismanagement by commercial fishers and from ecosystem damage by industrial factors (Turner 2005, 38). Edible marine resources that surround the Lelu Island area include salmon, herring, eulachon, Dungeness crab, sea cucumber, spiny pink shrimp, barnacles, and snails (Statnec Consulting Ltd. 2011, 6-7).

Fresh water species include sturgeon, trout (rainbow, cutthroat, brook, dolly varden, char), whitefish, suckers, chubs, and kokanee (McDonald 1985, 129). All species can be found throughout the main Kitsumkalum River, Kitsumkalum Lake, and tributary streams (McDonald 1985, 129).

Traditional Hunting and Trapping

The Kitsumkalum land-based economy relied heavily on a great array of animals that were hunted and trapped throughout the traditional territories. The Kitsumkalum primarily hunted within the Kitsumkalum, Skeena, and Ecstall Valleys and certain coastal islands (McDonald 1985, 106). As with the fishing resources, different house groups owned their respective house territories and hunting and trapping resources. The land was rich, and Indigenous peoples often note the lands to be their deep-freeze, grocery and hardware store, as it provided all of their nutritional and material needs. McDonald (1985, 105) reports that deer, elk, seal, sea lions, sea otter, mountain goat, mountain sheep, bear, porcupine, raccoons, eagles, marmot, caribou, moose, cougar, hare, lynx, swans, geese, ducks, and other waterfowl are listed as significant food sources in the ethnographic literature. To ensure sustainability, traditional law and practice ensured resources would be maintained for future generations (Johnston 2012, 22). Indigenous peoples had a use for and saw the reciprocal nature of relations with all beings, and thus every animal, plant, bird, and being within their territories were considered an important species to be held sacred and respected. Not all animals were hunted, but they nevertheless fit in the balance of nature and relationships between humans and non-human beings. For example, wolves are not hunted and the space between wolf and human habitats is respected as they are noted for bringing the people a special power, the ability to impart their great hunting skills (Turner 2005, 83). For sustenance-based peoples, "Hunting is every bit as important to their survival as Aboriginal people as it is to their physical survival. It has been the fundamental organizing principle of their culture, structuring and informing every aspect of their entire way of life. Everything from their technology and social organization to their beliefs and values were, and in many ways continue to be, deeply intertwined with (and given meaning by) the need to kill animals to survive" (Nadasdy 2003, 64). Nancy Turner also advocates the importance of these relationships and states that,

> In this kincentric worldview, it is understood that all forms of life need to eat each other and they willingly give themselves to each other as food, if the proper protocols are followed. Most important among these rules of conduct are treating all life with respect and never wasting or wantonly using animals, plants, foods, or medicines. Elders will explain that, just as one should not joke about other beings, so too children should never joke about, tease, play with or waste animals or plants, because these living beings have generously given themselves to humans for our benefit (Turner 2005, 81).

Land-based management in the post-contact area has not been guided by these natural laws and principles. Animal and bird populations were considerably diminished by settlement as the newcomers all supplemented their diets with hunting and fishing in the region. Intensive urban development and deforestation are also seen

as having incredible impacts on the populations of game (McDonald 1985, 110-111). Populations of deer and caribou were brought to near levels of extinction by the 1930s and are still found in scarce numbers (Ibid, 110). Today, the grizzly, sea lion, wolverine, and Dal's sheep find themselves on the list of over 150 species from the region that are identified as species at risk (Pearson and Healey, N.d.) The grizzly is a species that is of great importance to the Tsimshian peoples. It is revered by the people in clan crests and artwork throughout Tsimshian history and is also of critical importance to conservation generally. Grizzlies depend on diverse and expansive habitats and are often found near valley-bottom salmon streams, riparian forests, and alpine habitats (Johnston, 2012, 25). The disappearance of many different species continues to be noticed by the Tsimshian and other Indigenous peoples on the coast. Elder Helen Clifton of Gitga'at (Tsimshian) noticed that there used to be thousands and thousands of frogs near Hartley Bay which hopped all over the boardwalks. In recent times you hardly ever see frogs (Turner 2005, 133). Significant differences in practice, management, control, access, and ownership of land and resources have created a very different landscape for the Tsimshian since the time of contact with Europeans. Principles of ownership, land stewardship, and the relationships with other beings have created a massive disjuncture from traditional values and ways of knowing the world

Tsimshian hunting and trapping technologies and methods were as diverse as the populations they caught. Before firearms became available, bows and arrows, deadfalls, traps, and snares were used. Other methods included catching deer while they were swimming from a canoe, running goats over cliffs, and chasing game with dogs (McDonald 1985, 112). In recent times, hunters and trappers use all sorts of contemporary weapons and tools. Travel in the olden days was by foot, canoe, and dog sled along elaborate trail networks that have now mostly been replaced by roads, and now motorized vehicles have become the norm (ibid, 114). McDonald notes however,

> The Kitsumkalum are responsible for most of these changes, but the differences between "then" and "now" do not entirely reflect a free choice, or a perception on the part of the Kitsumkalum of the superiority of foreign ideas and technology. Significant changes were simply dictated by provincial legislation that put great limits on the development of the original technology (1985, 115).

After the newcomers asserted dominion, traditional technologies were prohibited, as were certain types of guns, the use of traps, sail or motorboats, in addition to a variety of other bans that inhibited the ability of hunting and trapping in any form or function (Ibid, 115). The impacts of colonization in the traditional hunting and trapping practices were profound (Ibid 118-119). In the 1920s and early 1930s, the province was divided up into "registered traplines" in an attempt to organize both aboriginal and non-aboriginal trapping activities. This concept of individual ownership or rights to trapping went against the traditional management practices for trapping and hunting areas of Indigenous peoples. While the hereditary system was based on matrilineal clan divisions, the newly imposed system was based on exclusive rights to harvest furs in newly defined areas and flexible boundaries which could be past down patrilineally or sold to non-Indigenous buyers. The registered trapline system seriously undermined the Tsimshian's ability to manage and control their resources based on their traditional governing structures. While traditional technologies and methods have been impacted, reconnection to the territories and the ongoing inclusion of country foods in the local diet is seen as a necessary component of cultural revitalization and resurgence.

Traditional Gathering

While fish and game were important sources of production for Tsimshian peoples, they also relied heavily on other material goods from their lands. Resources gathered from the forests provided materials for everything needed for society to function. Luckily for the Tsimshian, the resources along the coast were rich and abundant and all of their needs could be met from the landscapes where they lived. It is noted that the Tsimshian "enjoyed a surplus economy in which food production exceeded food consumption such that excess food resources could be used for trade, ceremonial activities, or to fund part-time occupational specialists (Martindale and Jurakic 2004, 256). While the ethnographic literature all agree that terrestrial and marine fauna are primary food sources, Martindale and Jurakic argue that flora are also staples of the Tsimshian diet due to the sufficient quantities found in the archaeological record (Ibid, 258).

All societies rely on the extraction of resources from their territories. However, what makes traditional gathering different from contemporary extraction methods is that the volume of resources taken were at sustainable levels that often left little trace on the environment. The Tsimshian were able to maintain relatively large populations on a land base for millennia, while today, the archaeological evidence often only leaves traces of shell middens, trails, and culturally modified trees upon the landscape surrounding their village sites. This however, does not mean that there was not a presence throughout the lands—even obsidian, copper, and dentalia were mined--yet resources were managed differently and ensured their would be sustenance for the following season and future generations. Nancy Turner, a renowned ethnobotanist, recognizes that, the protection of resources served many functions,

> Another component of traditional ecological knowledge that is highly relevant to use of Non-timber Forest Products is social control of resource use through land tenure systems and related cultural institutions. Ownership or proprietorship of plant resources is one obvious way to ensure that one might benefit from the long-term care and enhancement of plant resources. Ownership makes investments of time and energy worthwhile; it can be both a cause and an effect of "adding value" to a place and its plant resources (2006, 70-71)

Many of the lessons and values that guided resource management included a great reverence for the spiritual energy of all life forms and the need to respect and protect them for the use of future generations. Children were taught the skills, management techniques, and values inherent in traditional ecological knowledge from a young age by witnessing and participating in harvesting alongside the adults (Ibid, 72). Culture institutions such as potlatches, feasts, first foods ceremonies, and systems of designated authority are vital in passing on knowledge and philosophies that underlie resource use (Ibid, 72).

Traditional Logging

Tsimshian peoples utilized the great forest resources within their territories primarily for building materials and tools. However, trees also provided, and continue to provide, other goods such as medicines, firewood, clothing, and art materials. Red cedar was one of the most valuable resources as it provided a great array of materials. The wood from cedar was used to make planks for the great longhouses and other building structures. Totem

poles, canoes, drying racks, bentwood boxes, paddles, masks, helmets, armor and many other household items were made of cedar (Johnston 2012, 45). Bark is stripped from the tree, without ringing it, to make clothing, hats, rope, mats, baskets, and other soft goods, while braches made cords for fishing line, roe cores, and twine (Coast Tsimshian Resources, N.d). The wood from hemlock was used for carvings, spoons, combs, roasting spits and dishes. The bark was used for tanning hides and red dye. The inner bark made bread, cakes, and was eaten whipped with snow and eulachon grease. Branches and needles were used as a tea and a spice while the roots were used to strengthen fishing lines (Ibid). Coastal balsam was also used for housing planks and firewood; boughs were used as floor coverings and bedding; and the bark and needles were boiled for their medicinal qualities (Ibid). Sitka spruce, now endangered, was used for carvings; the roots made hats, baskets, ropes, fishing line, and twine. The inner bark could be eaten or used as a medicine and the pitch was used as a caulk, glue, and waterproofing substance (Ibid). Spruce pitch is also noted for its healing properties and can be used to draw out slivers and cure infections from cuts, burns, and scrapes (Turner 2005, 55). Other trees noted in the literature include: lodgepole pine, cottonwood, red alder, and birch (Johnston, 2012, 18). Other notable uses include firewood for everyday use and various hardwoods that were used to flavor smoked foods. Of the above species, cedar and hemlock are the most abundant within the study area.

Tree products were harvested to ensure the tree would continue to survive. Bark and branches were removed carefully to ensure the tree would not be ringed and would continue to grow. Turner notes that bark could be removed from trees such as birch or wild cherry without even damaging the inner bark or cambium layer (Turner 2006, 70). Even large planks can be removed from trees without killing them (Ibid, 70). Spruceroots and boughs would also be selectively harvested (Ibid 70). As with other forest resources, trees were taken from the forest with ceremonies that honoured them for given up their life essences.

Today, evidence of territorial occupation is often found in the form of Culturally Modified Trees (CMTs) and such sites are certainly present within the study area as previously discussed. However, protection of these sites is often seen as the need to protect the individual tree and markings while the greater utility in CMTs for Indigenous peoples is to decipher the use of the area whether it be as a gathering site or a trail marker: the entire area is of cultural significance, and a possible area for cultural resurgence and re-occupation after a lengthy history of colonization and the resulting dislocation from traditional territories.

Berries

The rich forests of the northwest coast provided an ample array of plant foods, medicines, and materials to contribute to the sustenance of the nation. Berries were a staple of the diet and were collected throughout the summer and fall. Martindale and Jurakic (2004, 258), for example, note the elderberry as one of the most abundant flora elements found in their samples. Elderberry was used as a food source[4], additionally, the stalks were used in a ceremony to celebrate the roasting of the first eulachon caught in the spring and the berries may have been used in burials as they represented human mortality (Martindale and Jurakic 2004, 258). They also

[4] Ripe elderberries are best cooked to ensure digestibility and decrease toxicity. It can be boiled into teas, syrups, and jams, or made into cakes. It has high nutritional values, is an antioxidant, and has medicinal qualities.

note that women primarily owned plant food sources and would give the first berries harvested each season to the sister of her husband or father (i.e. to her father clan), which was then reciprocated with gifts, "This suggests that the ritual was as much about maintaining affinal relationships and celebrating the economic value of berries as it was about redistributing gifts" (Ibid, 258). In *The Earth's Blanket: Traditional Teachings for Sustainable Living* (2005, 114), Nancy Turner states, "Food harvesting, not surprisingly, has primary significance in traditional peoples' lives, and the First Foods Ceremony is an important ritual that links people to their lands". Turner recounts a story told to her by Tsimshian elder and hereditary chief of the Gitga'at (Tsimshian) who stated that, if a member of another clan brings him the first salmonberry of the season, he is obliged to pay it back with a small gift (Ibid, 116). Ceremony was incorporated in all aspects of gathering from the land. When a life was taken, a gift was always given as an offering, and the plant or animal was always treated with respect and harvested to ensure its survival (Turner 2005, 96).

Many different types of berries were harvested from the land throughout the summer and fall. All had excellent nutritional qualities and other medicinal and health benefits. Berries are eaten fresh, dried, or made into cakes and some can even preserved in eulachon grease (Thompson 2003, 34). In the summer months, salal, salmonberry, soapberry, strawberry, saskatoons, raspberries, thimbleberries, and blueberries can be picked. In the late summer and fall, pacific crabapple, chokecherry, bearberry, rosehips, bunchberry, low- and high-bush cranberries were harvested (Thompson 2003, 34). Interestingly, the soapberry is an important berry for many Indigenous peoples and is made into "Indian ice cream" by mixing it with water and whipping it into a froth. It also has great medicinal properties and health benefits for the kidneys. However, it doesn't grow abundantly on the coast, so any locations where they can be found are of considerable interest to coastal peoples (Turner 2005, 58). Cloudberry, a small raspberry-like fruit that tastes like baked apples and is very high in vitamin C, can be found within the study area (McKinnon et. al. 1999, 92).

Berry patches were often managed by controlled burning. If done properly, burning enhances the nutrient quality of the soil and enhances the growth of a number of culturally important plants. Berry species promoted in this way included wild blackberry, blackcap, red huckleberry, blueberry, wild strawberry, low-bush cranberry, and salal. It was also said that burning created foraging grounds for deer and accessible firewood from snags (Turner 2006, 70). Other methods of sustainable resource management used by coastal peoples includes the replanting or transplanting of different plant species in more accessible areas, pruning and coppicing berry bushes, and thinning out of various plants, such as slough sledge (Ibid, 69).

Plant Foods and Medicines

The use of other terrestrial and marine plants produced a well-rounded diet for coastal peoples as well as provided numerous health benefits and medicinal properties. Common to Indigenous peoples' experiences from around the world, the intimate connection to the land produced knowledge of almost all species that make up the local ecosystems. The details of this knowledge of specific plants is too extensive to list in this report, but the experience of coastal peoples has been well documented by researchers such as Dr. Nancy Turner who has worked with the communities to catalogue traditional ecological knowledge. Generally speaking, roots and bulbs may be eaten or dried, leaves and stalks can be used for medicinal teas or eaten whole, seaweed is collected and is rich in nutrients, and mushrooms were collected and eaten dried or fresh. Plant based

medicines were made into teas, tinctures, compresses, salves, and cleansing smudges. As an example, two plants that have been identified on the coastal islands that are of significance include juniper and Labrador tea. Juniper is a low-lying shrub that has many uses. Boughs were burned or boiled as an aromatic, spiritual 'cleanse' and used in many different types of healing ceremonies. The tea from the boughs and berries is also made into a tea and used for tuberculosis, colds, heart trouble, and respiratory problems (Mackinnon et. al. 1999, 51). The boggy, moist wetlands of Lelu Island are perfect conditions for Labrador Tea, which used fresh or dried and makes a wonderfully aromatic tea that acts as a diuretic (Ibid, 40).

Food Security

In pre-contact times the sustenance-based economy was integrated into every aspect of Tsimshian life. In fact, long houses even did double duty as a smokehouse and salmon, herring, eulachon, and other types of fish hung in the rafters above the living area. Fishing, hunting, gathering and preserving were community events and were surrounded by ceremony and governed by traditional laws, customs, and the re-distribution of wealth that defined the potlatch system. Hereditary chiefs ownership of various resource sites and the ability of the house group to procure country foods was the measure of wealth and power that defined their land-based economy. The various species remained plentiful because traditional laws, common in most indigenous cultures, stated that you could only take what you need, food was not wasted, and all beings were treated with respect and ceremony. Breaking these natural laws, it was believed, would result in offending the plants and animals who would not return for future use by the people. Oral stories demonstrate the creation and relationships of the people to other life forms and how they should engage with one another.

With impacts of colonization, the Tsimshian's dependence on country foods has been greatly impacted, however, community members continue to recognize and utilize their limited resources as a symbolic and material expression of culture. Having access to salmon, eulachon, shellfish, berries and other prized traditions still define "wealth" in terms of cultural continuity, connections to the land and waters, and are the still shared at community gatherings and traditional feasts. New types of gatherings bring the people together to celebrate the annual salmon runs including the Kitsumkalum Annual Salmon BBQ every August.

The preservation of traditional foods no longer takes place in the long house, however, many people in the Kitsumkalum villages have their own or communally shared smokehouses. Smoking fish is actually a process of cold smoking or drying of fish, which is an excellent method to preserve the nutrient value. Home canning and freezing are also common methods of contemporary preservation methods. McDonald recognizes the changes in food preservation:

> Smoking and other aboriginal methods of preservation are more complex in labour terms than are modern methods. The technology requires more training, smoking facilities, firewood of a certain type for flavor, and a great deal of time to do it properly. It is the most time consuming of the methods and is more easily performed collectively, usually in a mass effort of many hands working many fish (a form of simple cooperation). As a result of the requirements of these methods, which are essentially camp skills, there are not many young women in Kitsumkalum who smoke fish, although there are several smoke houses which are kept going throughout the season (1985, 144-145)

McDonald further emphasizes the impact of cannery fishing and employment as negatively impacting the seasonal round and traditional economy of the Tsimshian (Ibid, 145). Conflicts between the newcomers and Tsimshian over fishing rights led to increased conflicts when the capitalist fishery overtook fishing sites and even established canneries on top of shore stations and villages (McDonald 1994, 158). Legislation and impacts of the Residential School and the Sixties Scoop further eroded the transfer of knowledge and skills required to maintain food security for the people. In recent times, many people still try to maintain the traditional harvest, but due to regulations it is often restricted to a short-time frame where fish must be caught all at once for the entire year, which makes it difficult for those involved in the wage-based economy to have the time to participate in these activities (McDonald 1985, 147).

Today, there is a cultural resurgence amongst communities who have made incredible advances across Canada to have their constitutionally protected rights and title recognized. Food fish and traditional forms of trade are seen as a way to decolonize and re-connect to cultures that were damaged, but not forgotten, by assimilationist policies. Generations of Indigenous peoples across Canada underwent forced assimilation by the creation of reserves, impacts of missionary involvement, residential schools, the Sixties Scoop, and the ongoing denial of their histories and cultures in mainstream schooling. Communities are asserting their rights through the courts and strengthening their languages and cultures lost. While a resurgence of Indigenous ways of being is desired, the ability to access country foods continues to be negatively impacted by the capitalist economy. Access to traditional territories continues to be restricted in many places and environmental degradation is taking an extreme toll. For instance, the salmon runs were extremely abundant in pre-contact times and it was not until 1889 when the first salmon shortage was recorded. The Tsimshian had complained about impacts to their salmon resource as early as 1882 shortly after the first canneries opened (McDonald 1985, 132-133). As the canneries extended their fisheries to all types of salmon, all species began to see shortages and today fears of the salmon stock's decline or destruction are always of great concern. The capitalist fishing industry had a major impact on fish stocks and spawning grounds: settlers, road and powerline construction, sawmills, canneries, clearcut logging, and river log-running brought the salmon stocks to near extinction. "The depopulation of streams in the Kitsumkalum Valley obviously affected the people's ability to procure fish. To exercise their fishing rights, the community had to go to new fishing areas in the Skeena River. Consequently, the old fishing stations at their former main town site and along the Kitsumkalum River, once highly productive and famous, are now overgrown and nearly forgotten—the fish simply are not there and the people have left to fish elsewhere" (McDonald 1994, 160). Food fish for subsistence was articulated by Canada first in 1878 but did not protect the traditional trade economy. Further changes in 1908 ordered "Indians" to report where, when, and how they fished, and put limits on how much and when fishing could occur. "Salmon, the symbolic heart of the aboriginal economy, was now totally embedded within and defined by capitalist property relations" (McDonald 1994, 160). Sadly, the interior coho is now considered an endangered species. Dogfish and halibut stocks were also severely impacted by commercial fisheries (McDonald 1985, 134) and abalone and eulachon are also becoming scarce. McDonald notes that,

> Bit by bit, capital captured ever more of the fish resource, taking it physically out of Tsimshian production. Even within the Kitsumkalum's own [reserved] lands, so far inland, the effect of these industrial disturbances could be felt, although there are no data on how extensive it was (1985, 134).

Today, even the Kitsumkalum themselves require fish permits for the Kitsumkalum food fishery and includes monitoring of: eulachon, gill net, salt water, and rod and reel fishing (Kitsumkalum 2011). This is necessary to regulate a dwindling resource that was once rich and abundant and supported the entire nation.

The gathering of country foods and the ownership of these territories by the house groups is the life-blood of the Tsimshian culture. The ability to continue teaching their children how to interact with and gather from the terrestrial and marine environments will ensure the continuation of culture and sustainability of the local economy. The laws, values, and beliefs that encompass the traditional worldview are the integral components that must continue into the future. For this transmission of culture, access to the lands and landscapes that created this knowledge and way of being must be realized.

Cultural resource management needs to recognize space not simply as a container but also as a constitutive element in human experience and social relations. Place exists in between the material and subjective, and serves an important role in the construction of identity as a subjective and embodied experience. The loss of this distinct sense of place can have significant impact on individuals and communities with such connections. "In order to protect the land its vital connections to Indigenous culture and identity, research needs to recognize the integral connection between Indigenous culture and the land, and refuse the separation of cultural and natural resources" (Crossroads Cultural Resource Management 2013, 31).

METHODOLOGY

Information relating to the Kitsumkalum specifically and the Tsimshian in general were reviewed for this report. Due to time constraints and the vast amount of works citing the Tsimshian peoples, this is not an exhaustive list. However, a description of the Tsimshian social organization, traditional knowledge, history, and impacts of colonization were reviewed. Since there is such a wealth of information, the majority of the works cited for this stage of the research focused on information available online and includes academic journals, technical reports and statistics, and government and organization-based websites. A few hard-copy and online books that were available were also reviewed. Similarly, there are also a number of primary documents mentioned in the literature, such as the field notes of William Beynon and the diary of Arthur Wellington Clah, which would be very informative when time permits the investigation of these historical documents. Miller (1998) also cites a number of sources that are available to help reconstruct the *adawk*. Internal documents prepared by the Kitsumkalum First Nation and treaty office will also help fill in more of the gaps in the literature. Technical reports, maps, and government and company websites were also reviewed to help understand and document the scope of the project, the study area, cumulative impacts, and current community statistics.

LIMITS OF CURRENT DATA

While the written sources on the Tsimshian are quite exhaustive it seems that there is a clear lack of detailed information on the Kitsumkalum, particularly on their current use, occupancy, and accessibility of their traditional territories, socio-economic details, and contemporary community life that can be filled in with

community-based research and a review of unpublished data. Furthermore, issues surrounding contemporary governance, unity, and future land use planning are unclear.

Information on the species used by Tsimshian and coastal peoples are abundant. However, the details of use and traditional ecological knowledge are not comprehensive or detailed. While Tsimshian spirituality, beliefs, and values seem to be consistent with other coastal nations, a more in-depth study and details specific to the Kitsumkalum will be extremely beneficial. Interviewing traditional knowledge keepers, language holders, and creating knowledge sharing opportunities that benefit community learners will be integral to this research and to the goals of cultural resurgence. There were maps in the historical literature, however, many were unclear and not comprehensive. An updated land use and occupancy map would be extremely beneficial. Maps that outline the various villages, clan and house territories, reserves, trails, heritage sites, and other places significant to the area would help to understand the history, landscape, geography, and land tenure of the Kitsumkalum and Tsimshian peoples. Naturally, a detailed study of the use of resources on and around the study area and marine passages will be necessary to determine the impacts of the proposed Project.

Lastly, it is imperative that we accept that previously recorded archaeological sites are not predictors of how the Kitsumkalum have used their territories in the past. The only method to determine past land use and occupancy is through an appropriate combination of community involvement, engagement, consultation and archival research. This project represents the inception of this approach. We appreciate the opportunity to collaborate with you on this project

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Appendix 1: Map of Kitsumkalum Traditional Territories