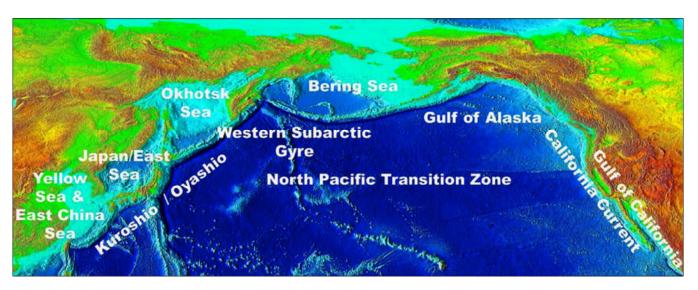
# Skeena Basin – Coastal Planning Linkages



Adapted from http://ngdc.noaa.gov/mgg/image/2minrelief.html

Ken Rabnett Skeena Fisheries Commission April 2005

	Skeena Basin Planning Linkages
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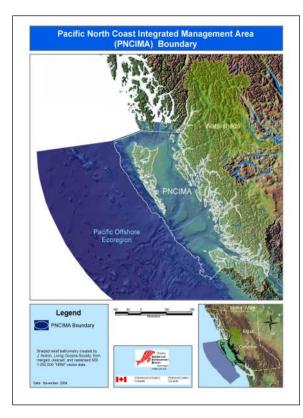
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# Introduction

With passage of the *Oceans Act* in 1996, followed by release of Canada's Oceans Strategy in 2002, the federal government in 2004 committed to implementing integrated management plans as part of its Oceans Action Plan. The integrated management plan for the Pacific coast is the Pacific North Coast Integrated Management Area (PNCIMA). The proposed PNCIMA planning process will collaboratively develop and implement an integrated management plan to guide and coordinate all activities occurring in or affecting the PNCIMA planning area, which currently includes estuaries and coastal and marine waters. The primary focus for PNCIMA short-term planning is to compile background information required for planning. This includes development of an Ecosystem Overview report, a Marine Use Analysis report, and the mapping of Ecologically and Biologically Sensitive Areas. This study prepared by the Skeena Fisheries Commission Technical Committee for DFO contributes to PNCIMA background planning documents.



Any coastal and ocean planning on the British Columbia north coast and near-shore marine areas must recognize the natural, aboriginal, and socio-economic factors linking the Skeena Basin, the coastal zone, and northeast Pacific Ocean. As well, decisions made in coastal and near-shore marine planning must take into consideration Skeena Basin First Nations interests.

These interests currently revolve around anadromous fish and their fisheries, near-shore marine fish and their fisheries, terrestrial-marine food webs and nutrient cycles, and management strategies. As well, there is considerable interest in reducing the impacts of past and present unsustainable development and in reducing the impacts of human-accelerated climate change on individual species, ecosystems, and society. It is essential that integrated coastal

management recognize the interrelationships among terrestrial, coastal, and ocean environments. The challenges posed by these complex interrelationships need to be explicitly addressed, and management responses incorporated.

Currently, many different types of planning, operating at multiple scales and jurisdictional levels have resulted in fragmented approaches, are exceedingly complex, and focus on problems that are well past the emergent stage.

# **Purpose**

This background report is a first step towards understanding the Skeena Basin linkages to PNCIMA, how they work, and how these factors integrate into larger planning efforts. The major emphasis is on presenting Skeena Basin First Nations information, linkages, and values. The single most important linkage factor is anadromous fish such as salmon. Salmon and First Nations are intertwined. This study's primary purpose is to bring together information from a variety of sources including First Nations and the provincial and federal governments, and to provide this data to Skeena Basin, coastal, and ocean planners and managers. The intent is to facilitate functional and effective plans and programs, that take into consideration interests and issues of Skeena Basin First Nations, and present recommendations focusing on future planning and forging linkages.

# **Background**

Currently in BC, there is no integrated planning and management approach that links or focuses on links with the terrestrial, coastal, and oceanic domains. Integrated management strategies are needed that take into account natural ecosystem functioning, varied levels of government institutions and jurisdictions, First Nations, sustainable social and economic development, and the relationships binding these factors.

In general, most current knowledge of Skeena Basin aquatic habitats, and the north coast and Northeast Pacific marine habitats is based on fisheries and/or oceanographic surveys that have had variable spatial sampling sites or stable sampling sites of short duration. There is knowledge of single or multiple species in non-explicit sites, but little is known about ecological communities, ecosystem functioning, and trophic level interactions. There is a need for ecosystem-based scientific and aboriginal technical knowledge that can help construct a knowledge base of the interrelationships across the terrestrial, coastal, and ocean biomes.

Presently, the picture that is emerging from shared observations in the Skeena Basin and the BC North Coast is not very comforting. Little understanding of ecosystem functioning has led to measurable habitat alteration and degradation, major declines in some fish stocks and greater stock fluctuations, and fundamental changes in the structure of marine ecosystems, especially in the upper layers of the food web.

PNCIMA can be used to make logical decisions in regard to sustainable basin, coastal, and ocean planning and management. The complexity of PNCIMA presents problems of scale, interconnected issues, and information compilation and sharing. Transcending the various layers of political decision-making in the coastal and oceanic PNCIMA zones is central to creating an effective management structure and framework. PNCIMA could potentially reduce or eliminate jurisdictional friction between departments and levels of government and single-sector management approaches. For PNCIMA to become a reality, long-term funding commitments are required by the federal and provincial governments.

# **Skeena Basin First Nations Governance**

First Nations with traditional territories in the Skeena Basin include the Lower Skeena Tsimshian, the Canyon Tsimshian, Gitxsan, Gitanyow, Wet'suwet'en, and Ned'u'ten peoples. First Nation's traditional use and occupancy of the Skeena Watershed is extensive and well documented by oral history, early Euro-Canadian visitors, and archaeological findings.

The lower Skeena Tsimshian occupy traditional territories on the lower Skeena River from Lakelse River downstream to the mouth and in the estuary, which is defined as lying from Browning Entrance to Portland Inlet. The Gitselasu centred at Kitselas Canyon occupy traditional territories from Legate Creek downstream to the Lakelse drainage. Kitsumkalum hold traditional territories that include the Kalum and Zymacord drainages. The Gitxsan occupy the middle and upper Skeena, upstream of Kitselas territories to the headwaters, except for the Gitanyow, whose territories occupy the majority of the Kitwanga sub-basin. The Wet'suwet'en occupy most of the Bulkley drainage. The Ned'u'ten occupy the upper Babine drainage including Babine Lake, the sub-basins that drain into Babine Lake and Babine River country upstream of Shahnagh Creek. Approximately 18,250 First Nation members reside in or hold territory in the Skeena Basin.

The traditional economies reflect an adaptation to their geographic territories and its environments. In the upper portions of the Skeena Watershed, the economy was based around the summer salmon fishery, with dispersal into smaller family groups during the rest of the year to fish, hunt, and gather on the House territories. In the lower watershed, the seasonal dispersal was to summer salmon fishing sites.

Detailed knowledge and understanding of the environment, the characteristics of each resource, and the seasonal variation in abundance and availability, were necessary for making decisions about what, where, and when different resources were to be harvested and processed for storage.

Intercultural contacts were extensive, with inter-marriage between neighbouring groups prevalent, resulting in the forging of kinship ties and alliances, promoting trading relationships and privileges, allowing technology transfer, facilitating cultural enrichment, and notably, enhancing economic stability. Trading was pervasive, utilizing an extensive river and trail network that connected coastal areas with the Pacific slope.

Although they differed linguistically, intercultural interactions were widespread facilitated by the use of the same basic social structure, which had integral connections to the similar environments they inhabited. This shared social structure was composed of a matrilineal kinship society, exogamous clans divided into houses, with crests, oral histories, and a land tenure system of territories, which were managed through the feast, a public forum process. The separate aboriginal groups possessed distinctive characteristics and complexities that are important to note, but the social structure cut across major linguistic and cultural divisions.

#### **Fisheries Context**

The aboriginal salmon fishery formed the principal foundation of the economy. The very abundant and predictable salmon stocks provided First Nations with the opportunity to harvest and preserve a large amount of high quality food in a relatively short time of intensive effort. Arrangements for management of the fishery were deeply interconnected and woven into the fabric of society. Bodies of laws, governing the fish resource generally, and fishing specifically, were based on values from a conceptual reality founded on thousands of years of interacting with each other and the local environment. The majority of relevant fishing regulations were self-enforcing, since they were founded on community values shared by its members.

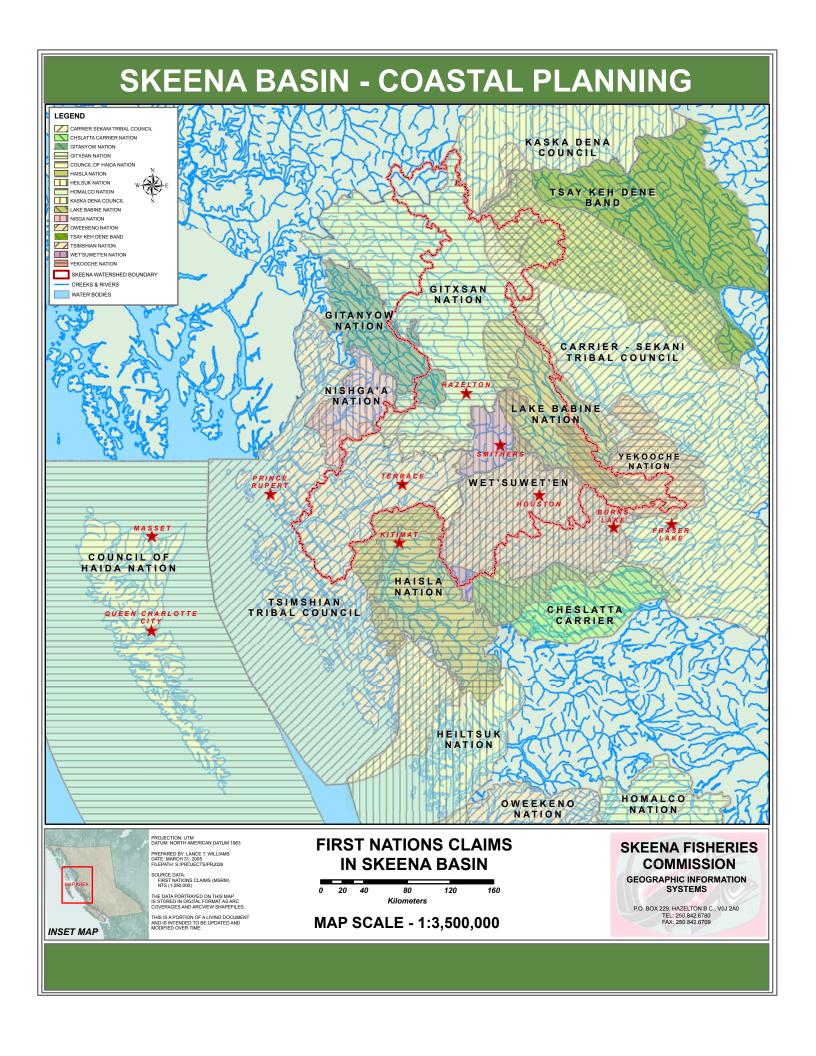
Anadromous chinook, coho, sockeye, chum, pink, and steelhead stocks along with lamprey eel and oolichan were typically harvested and processed close to their spawning grounds. Hereditary chiefs exercised authority for management and decision-making. Principal management tools included ownership of specific sites, access allocation, control of harvest techniques and timing, with overall harvest limitations imposed by processing capacity.

Fundamental conservation elements were practiced; waste was forbidden. Processing capacity was limited by smokehouse infrastructure, particularly the amount of space available on the lower poles, where fish were hung in the first stages of the drying process, and by the number of fish that could be dressed in the available time. When the daily processing limit was reached, traps were removed from the water or opened, and the salmon were allowed to proceed upstream. The predominant use of live-capture gear enabled the people to selectively harvest desired species, with the remainder released unharmed.

Traditional social relationships secured through marriage, father clan rights, or a group of related Houses could confer fish harvest rights. These social mechanisms provided for flexibility in re-assigning demand and processing capacity, as well as facilitating and or balancing the fisheries demand to the resource on a year-by-year and stock-by-stock basis. This system flexibility was important if there was a stock depletion, or disturbance, or variation from one portion of the Skeena Watershed to another.

The harvest of surplus to conservation needs on a stock-by-stock basis allowed for optimal utilization of the salmon resource. This enabled the fishery system to adapt to variability in conditions and management situations that facilitated allocation and regulation in the fishery, while encouraging habitat protection. The results of traditional fish management, can be assessed by early industrial fishery records which show that Skeena Basin First Nations management of the salmon fisheries left a resource that was vigorous, diverse, and healthy at the advent of the commercial Skeena fisheries in the late 19<sup>th</sup> century.

The following map shows Skeena Basin First Nations as depicted by their Statement of Interest accepted by the governments for current treaty negotiations. The Statement of Interest may not be the reality negotiated in treaty discussions. On the ground, the overlap picture is not as complex or problematic as pictured; in many cases, there are agreements or partial agreements between neighbouring First Nations. For example, the Gitxsan have boundary agreements with Gitanyow along their common border. On their eastern boundary, historic and recent agreements exist between the Carrier-Sekanni and Gitxsan.



#### **Federal Government Structure**

#### Reserves and Band Councils

Europeans first arrived in British Columbia in the 1770s and established themselves in the Skeena Basin by the 1820s. At that time, the aboriginal inhabitants of the Skeena Basin were organized into various communities throughout the Skeena Basin. Each community had its social and economic structures that functioned as government.

With the establishment of colonial government, and later the province of British Columbia, most of these First Nations communities came under intense social and economic pressures. Foremost among these were the diseases brought by non-aboriginals that decimated the First Nations population. Settlers and prospectors occupied choice pieces of First Nations territory, followed by missionaries and the federal and provincial governments who sought to induce them to abandon their cultures, going so far as to seize First Nations children and put them into residential schools. At the turn of the 20<sup>th</sup> century, First Nations traditional weir fisheries and commercial sales were outlawed.

The federal and provincial government strategy was the unilateral imposition of rules on First Nations governments restricting residence to reservations and attempting to replace traditional governance with appointed, and later elected, band councils. The federal government passed laws banning the potlatch, a key feature of First Nations governance, and banned fundraising that furthered First Nations land claims. For many years, the federal and provincial governments viewed First Nations as wards of the state, incapable of making their own decisions and needing to be looked after.

Under the *Indian Act*, a band is defined as the community of Indians that lives on a reserve, with a Chief and Council recognized as the band government. First Nations people became defined in terms of which reservation they lived on. In a historical and technical sense, a reserve is federal land held in trust for the First Nation. In practice, however, First Nations Governments have a level of control over their reserves approaching that of communal ownership.

Indian and Northern Affairs Canada (INAC) is responsible for the administration of land and resources on reserves. The main piece of federal legislation enabling reserves and their governance First Nations is the *Indian Act*. Under the *Indian Act*.

- A community of Indians living on a reservation is known as a band and is governed by a Chief and Council.
- ☐ In most communities the Chief and Council function very much like the mayor and council of a municipal government.
- Band Councils have certain powers that can only be exercised over the reserve and Band members.

INAC's primary role is to support First Nations to develop healthy, sustainable communities while achieving their economic and social aspirations. INAC negotiates comprehensive claims, specific land claims, and self-government agreements on behalf of the federal government. It is responsible for delivering services such as education, housing, and community infrastructure to Status Indians on-reserve. As well, it is responsible for delivering social assistance and social support services to on-reserve residents with the goal of ensuring access to services comparable to those available to other Canadian residents.

# Self-Government and Rights

The Indian Act structures granting of powers from the federal government to band councils. In some cases, band councils form government commissions that centralize financial, social, and technical infrastructure services. While there is increasing recognition that First Nations governments should have broader powers and more self-control, there is still significant disagreement with INAC over what this new form of First Nations government should look like.

However, First Nations Governments existed long before the Indian Act and there is increasing recognition of traditional rights of governance. Increasingly, First Nations leaders are asserting their right to self-government, passing laws, and electing governments without following the requirements of the Indian Act.

# Aboriginal Rights are Historically Based

Skeena Basin and the associated estuary/coastal zone were home to First Nations long before Europeans arrived in the area. Aboriginal rights stem from this prior and longstanding use and occupancy of the land, which gives them their unique legal and constitutional status. As early as the 18th century, Britain recognized First Nations land claims, and major treaties were signed as settlement moved westward across Canada. Until recently, the only treaties signed in B.C. were the Douglas Treaties on Vancouver Island and Treaty 8, which was extended across the prairies and into north-eastern B.C. By the time B.C. joined Confederation in 1871, the province's aboriginal policy was set: the B.C. Government did not recognize Aboriginal title; therefore, B.C. argued, there was no need to negotiate treaties in order to extinguish it.

# Aboriginal Rights Exist in Law

In the early 1970s, successive court cases confirmed the existence of Aboriginal rights. In 1982, Canada's supreme law, the Canadian *Constitution*, was amended to recognize and affirm existing Aboriginal rights. This change to the *Constitution* did not create or define any new Aboriginal rights; rather, it recognized and affirmed already existing Aboriginal rights, without spelling out what those rights were or where they may exist. The Crown has not been able to extinguish Aboriginal rights since 1982 when Aboriginal rights were given constitutional protection.

Over the past 30 years, Aboriginal rights are slowly being defined through the Canadian courts. For example, in 1990 the Supreme Court of Canada concluded in the *Sparrow* decision that the Musqueam Indian Band had an existing Aboriginal right to fish. This was followed by the important 1997 *Delgamuukw* decision on Aboriginal rights and title. Recent case law such as *Haida* and *Taku* have further defined the right to be involved in resource planning and

management decisions. First Nations have a right to be consulted and accommodated in a meaningful way about government or third party proposals that may affect their claims of aboriginal title.

In addition, the provincial and federal governments are trying to negotiate modern treaties that will define the rights and title that First Nations possess. For Skeena Basin First Nations, treaty negotiations are dealt with in a variety of ways that include tribal council and hereditary chief structures. It is important to note that treaty negotiations involve the traditional concept of rights and territories, and are not limited to reserves, band councils, and responsibilities reflected in the Indian Act. The treaty process is critical to resolving uncertainty around Aboriginal rights.

The issue of First Nations' claims to land in B.C. remains outstanding. Resolution will either be negotiated and agreed upon by Canada, B.C., and First Nations through the treaties, or it will be decided by the courts on a case-by-case basis. To date, Court decisions have not resulted in a clear definition of Aboriginal rights. Courts have repeatedly stated that claims to Aboriginal rights and title are better settled through negotiation than through court cases. Modern treaties will potentially set out the negotiated treaty rights of Aboriginal groups.

#### **Skeena Basin First Nations Fisheries**

#### Ned'u'ten

Ned'u'ten Nation, commonly called Lake Babine Nation, speaks Witsuwit'in, a distinctive Athapaskan language. The identity as a nation and distinct culture is closely tied to Babine Lake. Ned'u'ten governance and social structure are based on the traditional hereditary system. Most Ned'u'ten reside in Woyenne, which is located close to Burns Lake, BC. Smaller communities are located at Tachet, situated close to the mouth of Fulton River, and at Fort Babine commonly called Wud'at, situated at the outlet of Babine Lake. Seasonal communities include Old Fort, Donald's Landing, Smithers Landing, Sunnyside, and Pinkut Lake, as well as a myriad of salmon harvest and processing sites along Babine and Nilkitkwa Lakes.

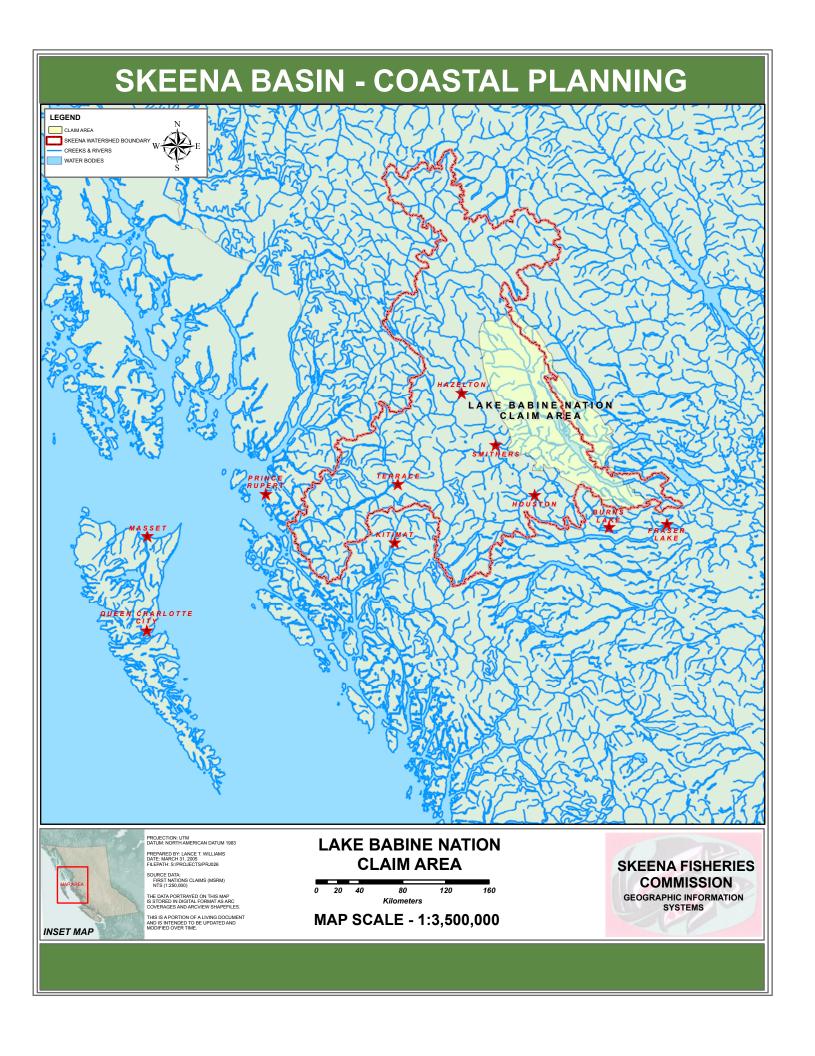
Lake Babine Nation numbers more than 2,000 members with the majority of the population between 20 and 35 years of age. Lake Babine Nation (LBN) represents all members of Woyenne, Tachet, and Wud'at in treaty negotiations. Ned'u'ten Fisheries, under the auspices of the LBN, operates the fisheries program and is a member of the Skeena Fisheries Commission.

The major Ned'u'ten traditional salmon fishery was located from the upper canyon on Babine River (~Nichyeskwa Creek) to the outlet of Babine Lake. Salmon formed the principal foundation of the traditional economy. The old site of Wud'at, also known as Tsa Tesli, was the principal salmon season village. It was located on the right bank of Babine River and is for the most part, currently overlaid by DFO's counting fence camp. Salmon fishing was conducted as a cooperative clan endeavour with the fish caught in traps along weirs.

On the Babine River below Nilkitkwa Lake, the Tsayu or Beaver Clan operated weirs. Upstream from the Tsayu and close to the lake outlet, the Laksamasyu harvested fish from their weirs. Further south, at the inlet to Nilkitkwa Lake and upstream of Smokehouse Island in the shallower water, the Gilserhu owned weirs. The fourth set of weirs, operated by the Laksamasyu, was positioned at the outlet of Babine Lake, in the river section near the present day hatchery site. As well, large weirs spanned the Fulton River near its mouth, serving the village there.



Smokehouses and fish racks, Nilkitkwa Lake.



At the turn of the 19<sup>th</sup> century, a campaign by cannery operators enforced by the Department of Marine and Fisheries, prohibited aboriginal fish weirs and the sale of processed fish throughout the Skeena Watershed. This action was focused on Lake Babine Nation weirs. The dispute was somewhat settled with the Barricade Agreement of 1906; however, to this day, bitter feelings remain. Since that time, the majority of Lake Babine Nations' food, social, and ceremonial (FSC) and trade fish needs have been procured with gillnets.

Since 1946, DFO has maintained a counting fence at the mouth of the Babine River. In the 1960s, the Babine Lake Development Project (BLDP) constructed artificial spawning channels and dams to provide for water flow regulation. These were located at Pinkut Creek and Fulton River, tributaries of Babine Lake. The BLDP project boosted sockeye production to the point that enhanced Babine sockeye now represent at least 90% of the overall aggregate run of sockeye salmon in the Skeena River.

The food, social, and ceremonial (FSC) fishery that is managed by Ned'u'ten Fisheries targets the enhanced Pinkut and Fulton sockeye runs that are primarily harvested throughout Nilkitkwa Lake and in select sites in Babine Lake. Wild chinook, coho, and steelhead are harvested incidentally with the sockeye or as specific species. Harvest timing is related to run timing.



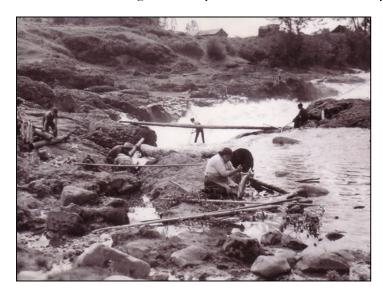
Beach seine at Fulton River mouth © Ned'u'ten Fisheries

Since 1991, in years of abundance, Ned'u'ten Fisheries operates an Excess Salmon to Spawning Requirement (ESSR) fishery targeting sockeye jacks that are harvested from Babine River at the counting fence. Additionally, beach seines and a small seine boat are occasionally used near the Fulton River and Pinkut Creek spawning channels to harvest ESSR sockeye. Ned'u'ten Fisheries is responsible for fishery monitoring, stock assessment, enhancement, and habitat activities through a strategic, multi-year program.

#### Wet'suwet'en

The Wet'suwet'en Nation includes approximately 5,000 people. The governance and social structure are based on the traditional hereditary system. Wet'suwet'en families belong to thirteen Houses that in turn belong to five family groups or clans. Each House is responsible for their territories and members. The Wet'suwet'en Nation language is from the Athapaskan linguistic family. Wet'suwet'en territory includes the majority of the Bulkley drainage and a small portion of the upper Fraser drainage. Their cultural identity is intricately linked to the Bulkley River and its fisheries, particularly sockeye. Major Wet'suwet'en communities include Hagwilget, Moricetown, Broman Lake, and Nee Tahi Buhn, with off-reserve residents in Burns Lake, Houston, Telkwa, and Smithers.

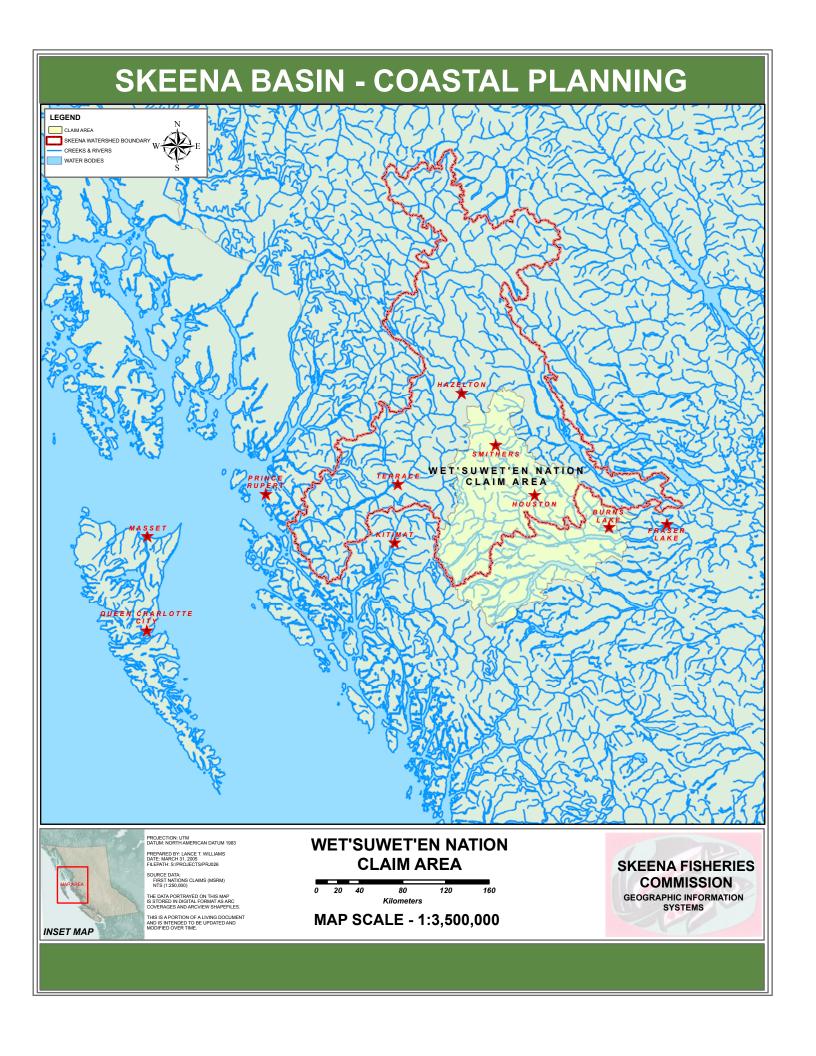
The Office of the Wet'suwet'en was created as a central office for the Wet'suwet'en Nation. The Office offers many services throughout the Nation, though the main focus is Lands and Resources, Fisheries, Human and Social Services, and Treaty Negotiations. The office is not a tribal council; however, it fulfils similar administrative functions. The Office of the Wet'suwet'en is governed by the Wet'suwet'en Hereditary Chiefs.

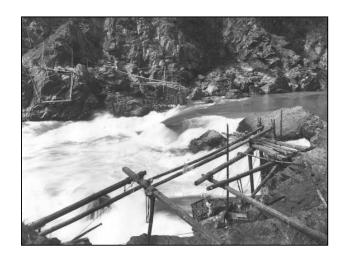


Moricetown Canyon fishery, 1946.

Fisheries Research Board of Canada.

Major Wet'suwet'en traditional fisheries existed at Hagwilget Canyon and Moricetown Canyon. These fisheries focused on sockeye, chinook, coho, steelhead, and lamprey eel. Smaller salmon fisheries occurred at Bulkley Falls, Bulkley Lake, Maxan Lake outlet, numerous sites on Bulkley River, Morice River Canyon, Morice Lake outlet, Nanika River outlet, lower Atna River falls, Toboggan Lake outlet, Barrett Lake outlet, Morice—Owen Creek confluence, sites adjacent to mainstem—tributary confluences, and upper tributary sites. Hagwilget Canyon and Moricetown Canyon sites were fished with a variety of traps to harvest abundant sockeye and chinook stocks. By the mid-1930s, canyon fish traps were discouraged and gaffing was promoted. Coho and steelhead were targeted later in the season, often at tributary mouths or at dispersed upper reach fisheries.





Hagwilget Canyon fishing platforms. BC Archives.

The majority of the Hagwilget Canyon sites were not fished after the winter of 1958-59, when the Department of Fisheries blasted the rocks that had helped to concentrate fish close to the canyons walls.

Salmon stocks passing through the Bulkley River formed the principal food resource that enabled Wet'suwet'en people to make the area their home. The Wet'suwet'en salmon fishery at Hagwilget Canyon was likely one of the largest concentrated aboriginal fisheries on the Skeena system, along with the very large fisheries at Gisgagaas and Wud'at on the Babine River. In the past, the Moricetown Canyon fishery fulfilled the food, societal, and ceremonial (FSC) needs of the Wet'suwet'en; however, recent sockeye escapements in the Morice–Nanika and upper Bulkley systems have been so low as to preclude intensive sockeye fishing.



Beach seining below Moricetown Canyon. © Wet'suwet'en Fisheries.

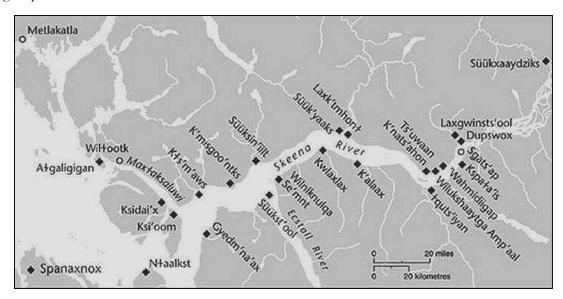
The Morice–Nanika sockeye are the significant sockeye stock in the Bulkley Basin. The decline of this important fish resource greatly concerns the Wet'suwet'en. Since 2001, Wet'suwet'en Fishers have for the most part foregone their terminal sockeye food fish harvesting;, they have procured sockeye from the coastal commercial fishery. Wet'suwet'en Fisheries and the DFO have both been implementing management actions to increase Morice–Nanika sockeye escapements. The Morice–Nanika Sockeye Recovery Plan is being developed by the DFO and Wet'suwet'en Fisheries to restore the sockeye stock.

Wet'suwet'en Fisheries manages the catch that is composed mostly of chinook and pinks, to ensure that stocks are harvested at sustainable levels. The stock assessment program is focused on tagging and recapture of coho and steelhead, which has produced substantial results. Other core activities include adult and juvenile enumeration, habitat assessment, overwintering surveys, juvenile salvage, enforcement, and gear development.

#### **Tsimshian**

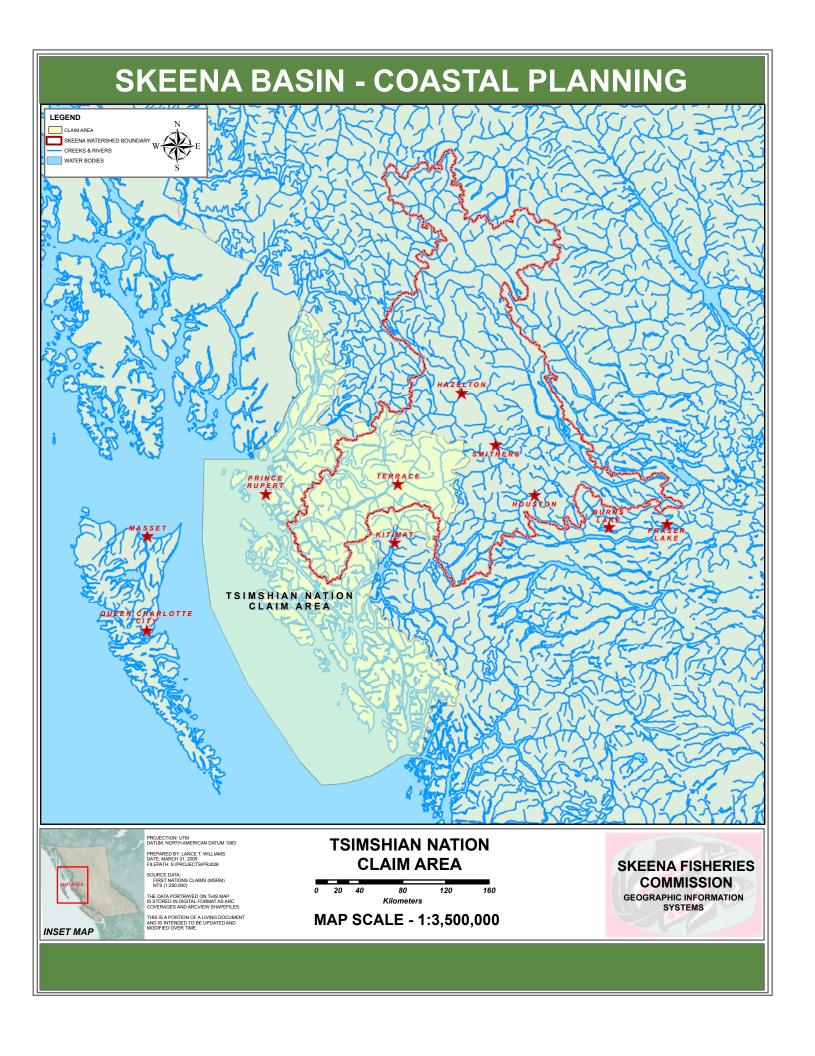
The lower Skeena River area has long been the traditional homeland of Tsimshian peoples. First Nations traditional use and occupancy of the lower Skeena areas was extensive and is well documented by oral history and early Euro—Canadian visitors. The Tsimshian define themselves in relationship to their lands and waters. For this study, Tsimshian are defined as those people having traditional territories at or below Legate Creek in the Skeena Watershed and in its estuary. This includes the Gitselasu, Kitsumkalum, Giluts'aaw, Gitnadoiks, Gitlandau, Ginax'angiik, Gispaxlo'ots, Gitando, Gitlaan, Gitsiis, Gitwilgyoots, and Gitsaxla; the Gitwilsaba are now extinct.

Gitselasu were centered at the Kitselas Canyon, and occupied villages and territories from Legate creek westward to the Lakelse River. The Kitsumkalum occupied the Kitsumkalum and Zymacord drainages; Dalk Gyilakyaw, Gitxondakl, and Kitsumkalum located on Kitsumkalum River were the main village sites. From the Lakelse River downstream to the Skeena mouth ten distinct Tsimshian groups held territories. These groups were centred in villages typically located close to the Skeena River, and used traditional territories owned by various House groups.



Fishing, village, and camp sites on the lower, tidal portion of the Skeena River. © Susan Marsden.

Gitando ancestral territories included the Shames River drainage, with the village site located close to the Shames River mouth. The Gitnadoix people used the Gitnadoix drainage, with villages located at the mouth and close by the Magar Creek confluence. Ginaxangiik (Ginaxangits) occupied a village site at the mouth of Exchamsiks River and used the rich resource territories in the Exchamsiks and Exstew drainages on the north sides of the Skeena River, as well as several small tributary streams opposite the mouth of the Exchamsiks River. Gitziis territories were located in the Kasiks River drainage, with a village close to the mouth. Gitwilgiots occupied the coast from Maskelyne Point to Telegraph Point including the Khyex drainage.



The Tsimshian culture has strong connections to the environment. The social structure is composed of a matrilineal kinship society, and exogamous clans divided into houses, with crests, oral histories, and a land tenure system of territories managed through a public forum process called the feast. The Tsimshian are composed of approximately 5,000 members whose governance and social structure are based on the traditional hereditary system. Tsimshian families belong to a myriad of House groups that in turn belong to four clans. Each House is responsible for their territories and members. Major communities are Kitselas, Kulspai, Kitsumkalum, Lax Kw'alaams, and Metlakatla, though strong off-reserve communities are also present in Terrace, Prince Rupert, and Port Edward.



Kitselas Fish wheel Kitselas Resource Management

In the past and to this day, salmon are an integral part of the Tsimshian culture and are one of the main food and trade sources, though other estuarine and coastal seafoods are exploited. All species of salmon, chinook, sockeye, chum, pink, coho, and steelhead were harvested using a variety of fish traps, weirs, spears, and different types of nets. Oolichan were caught and dried or processed into nutritious grease. Seals were often harvested in the river. In the estuary and on the coast, seaweed, herring spawn, halibut and ground fish, sea mammals, and shellfish were and continue to be seasonally harvested and processed.



**Kitsumkalum Fish wheel**Kitsumkalum Natural Resources Management.

Currently, Kitsumkalum and Kitselas utilize selective fish wheels, fish traps, and gillnets and set nets to fulfil food, societal, and ceremonial (FSC) fish needs, that mainly target sockeye and chinook. Live capture in fish wheels and fish traps allows the harvest of target species such as sockeye without harvesting non-target species. For their FSC fish needs on the coast, Tsimshians use gillnets, seine nets, and trolling.

# Gitanyow

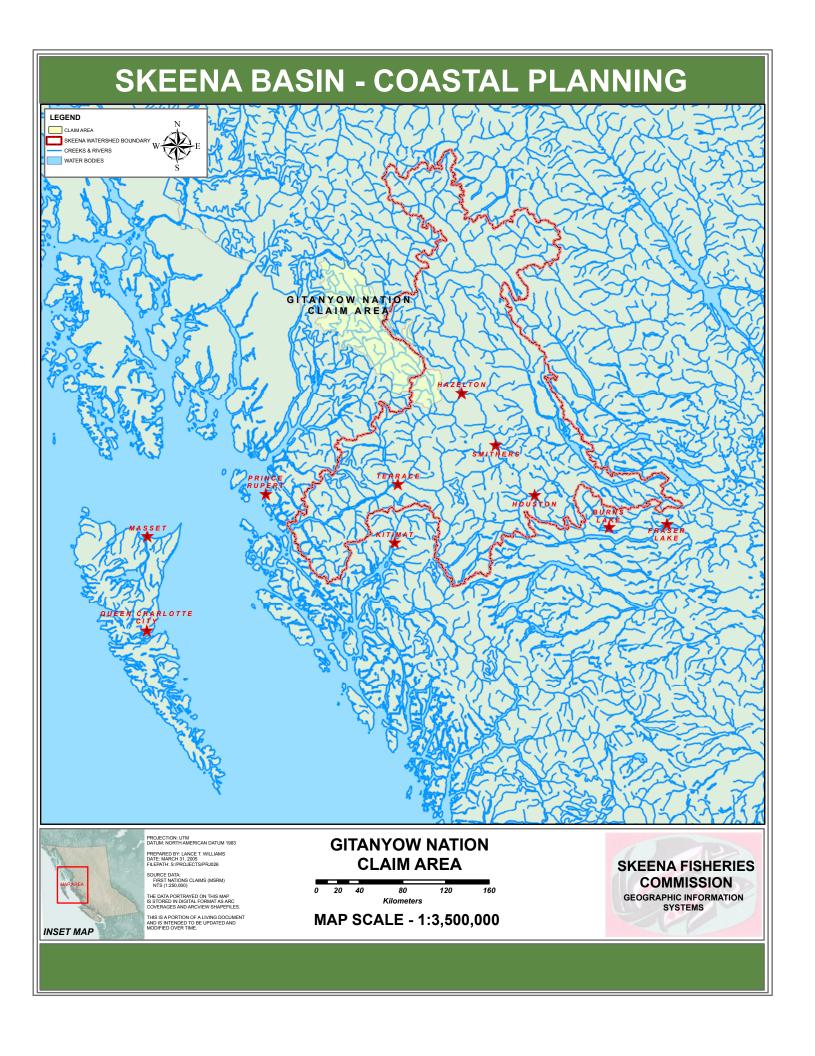
The Gitanyow Nation village is located on the Kitwanga River, which has long been a part of their traditional territories. Gitanyow also occupies traditional territories in the mid-Nass with important fisheries in the Cranberry and Meziadin systems. A strong cultural identity revolves around salmon, as well as fishing and home place sites on the Kitwanga River, Skeena River, and the Nass River. The freshwater and anadromous fish community contributes to the ecology, nutrient regime, and structural diversity of the drainages. It also provides strong cultural, economic, and symbolic linkages.

Gitanyow is composed of approximately 750 people whose governance and social structure is based on the traditional hereditary system. The social structure consists of a matrilineal kinship society, with two exogamous clans divided into eight Houses, with crests, oral histories, and a land tenure system of territories managed through the feast. Each House is responsible for their territories and members. The major community is in Gitanyow, though strong components are also present in Gitwangak, Gitsegukla, Terrace, and Hazelton. Gitanyow Hereditary Chiefs (GHC) represents Gitanyow people in treaty negotiations and land and resources issues. Operating under the auspices of the GHC, the Gitanyow Fisheries Authority (GFA) manages the fisheries program.

The Kitwanga Watershed is a relatively small but biologically rich sub-basin that has considerable, varied, and high value fish habitat. Fish species utilizing this habitat include the six Pacific salmon: sockeye, coho, pink, chum, chinook, and steelhead. Kitwanga River sockeye salmon abundance has fluctuated at low levels since the early 1960s, raising concern for the stock. The survival of the sockeye salmon population, an extremely important food source, is a serious concern to Gitanyow. Currently, sockeye abundance has been so low as to preclude food, societal, and ceremonial fishing.



Fish weir on the Kitwanga River; note basket traps on far shore. Louis Shotridge, 1918 (CMC, 71-8442).



Weirs with traps supported the most intensive fisheries on the Kitwanga River. The last remaining documented weir was located immediately below Gitanyow village. This productive weir, built across the shallow river, supplied most of the salmon needs for the Gitanyow people. Posts were pounded into the river bottom, and then overlaid with panels of split cedar secured on the upstream side, and often supporting a walkway across the top that enabled access to barrel-type traps. These traps were fitted with a movable panel through which fish could be dipped or gaffed out, or released, dependent on whether the species was desired. Known fish weir locations associated with Gitanyow include the outlet of Kitwanga Lake, multiple sites from the lake outlet to Gitanyow village, and sites downstream from the Kitwanga-Kitwancool confluence.

Gitanyow Fisheries Authority currently manages a fisheries program that includes stock assessment initiatives, habitat assessment, water quality studies, limnological surveys, and DNA sampling. Stock assessment initiatives include enumeration of anadromous and resident fish at the GFA counting weir on the lower Kitwanga River, spawning surveys, juvenile synoptic surveys, and creel surveys. Habitat assessment surveys include surveys of habitat alterations and restoration, fry and smolt salvage, beaver management, limnological surveys, and water quality. In partnership with DFO, GFA has initiated the Kitwanga Sockeye Recovery Plan with the intent to rebuild and maintain the stock that will enable a sustainable harvest for the Gitanyow Nation.

GFA's strategic plan is strongly directed to the Kitwanga sockeye stock rebuilding program. Steady growth is planned for strategic and operational programs as well as treaty negotiations and economic development programs.



Kitwanga River Salmonid Enumeration Facility, 2003. © GFA 2003.

#### Gitxsan

Gitxsan territories are located from the mid-Skeena (~Legate Creek) to the Skeena Headwaters, as well as in the upper Nass Watershed from Kwinageese upstream to the Nass headwaters. The Gitxsan population is approximately 5,500, primarily residing in the major villages of Gitanmaax, Gitsegukla, Gitwangak, Glen Vowell, and Kispiox. The governance and social structures are based on the traditional hereditary system. Gitxsan families belong to fifty-six Houses that in turn belong to five family groups or clans. Each House is responsible for their territories and members. Gitxsan cultural identity is intricately linked to the Skeena River and its upper tributaries, and the upper Nass and its eastern tributaries and their respective fish populations. The Gitxsan Treaty Office represents Gitxsan interests in treaty negotiations.

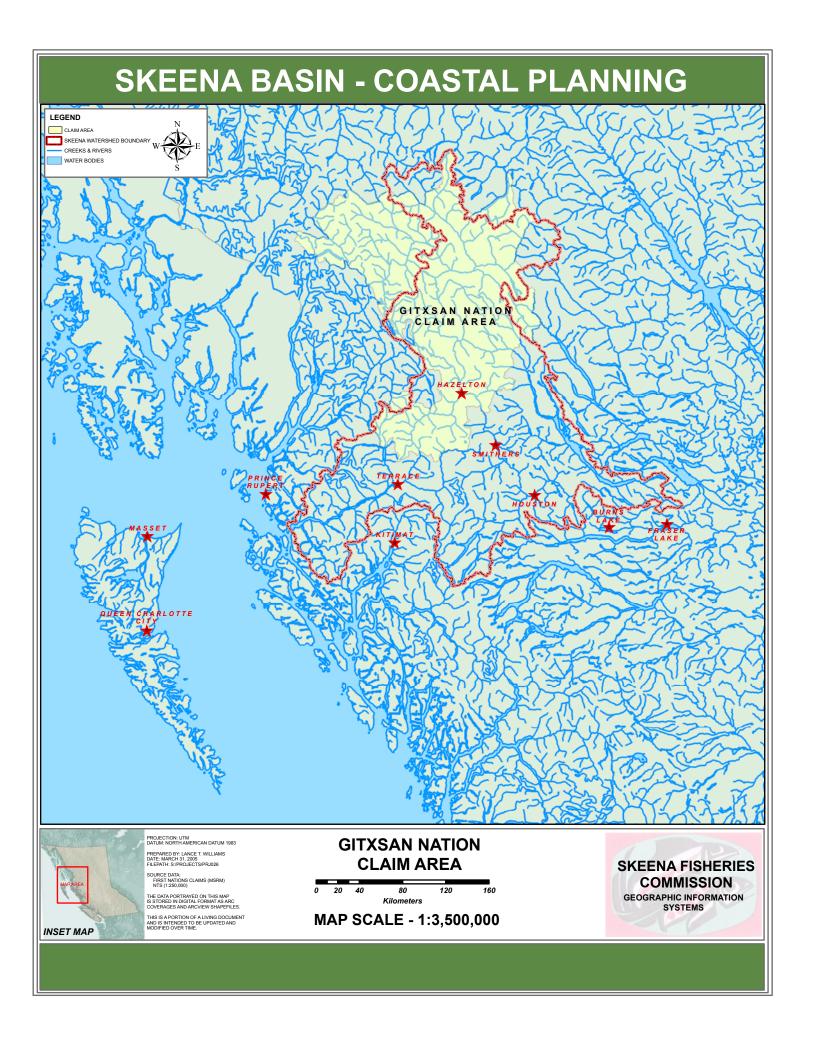
Major Gitxsan traditional fisheries were located along the Skeena mainstem to the Sustut confluence, especially in entrenched or canyon sections. Fisheries on major tributaries were numerous, particularly on the Kitwanga, Gitsegukla, Suskwa and lower Bulkley, Kispiox,

Babine, Sicintine, Slamgeesh, Squingula, Sustut, Bear, and the Kluatantan Rivers. The tributaries of these streams often supported weirs near their mouths or near lake outlets. Sockeye, followed by chinook, were the targeted fish, although coho, chum, pink, and steelhead were also harvested and processed. Salmon fishing formed the foundation of Gitxsan food and trade economies.



Smokehouses at Gisgagaas, Babine River Public Archives of Canada.

Differing geographic locations across the territories dictated harvest technology and methods. Traditionally, salmon and steelhead were caught primarily with weirs inset with a variety of large woven cylindrical or barrel basket traps. Undoubtedly the most productive and ingenious of fishing gear, these weirs were built right across smaller to mid sized streams. On the main stems they were often built on an angle so the weirs would guide the migrating fish into shore-side traps. The wide variety of weirs and contiguous traps used were matched to the species, placement, and building materials available. Smaller tributaries often were fished with weir placements just upstream of the confluence with the mainstem, while larger tributaries had weirs strategically positioned at lake outlets.





Fish wheel operating on Babine River © Gitxsan Watershed Authorities 2001.

At canyon locations, where the salmon tended to be concentrated by strong currents, large woven baskets and/or lashed wooden strip traps were ingeniously made. Trap sizes varied, with larger ones being lowered and raised with stout poles operated by a strong and frisky crew. The various traps and dip net gear used depended on site location, fish quantities needed, the number of people available to fish the gear, and processing capacity. Gear types suited to single fish harvest included specialized dip nets with a closable mouth (bana) and spears. Spears were utilized in shallow, clear tributary streams where fish were easily visible.



Counting weir at Damshilgwet Creek © Gitxsan Watershed Authorities 2002.

Currently, Gitxsan fulfil FSC fish needs primarily with dip nets, set gillnets, and drift gillnets. ESSR fisheries, when they occur, are live capture selective fisheries, typically utilizing beach seines, dip nets, and to a lesser extent, fish wheels. FSC and ESSR fisheries target the enhanced early, mid, and late Babine sockeye runs due to a lack of abundance and fluctuating stock returns in less productive sockeye nursery lake systems. Gitksan Watershed Authorities (GWA) manages the catch for the Gitxsan FSC and ESSR fisheries. As well, GWA manages stock assessment, habitat assessment, enforcement, and other biological programs such as overwintering surveys, fry salvage, and DNA sampling.

GWA's strategic planning is directed into short and long-term planning with two components, management and operations. Management planning includes assuring access to the fish resource, fisheries research and analysis, and economic development. Operational activities include protection and enforcement, juvenile density surveys, fry and smolt surveys, adult escapement surveys, creel surveys, counting weir facilities, GIS lab, operational fishing plans, and catch and effort monitoring. Currently, planning emphasis is directed to priorities on an annual basis due to budget limitations.

#### **Skeena Fisheries Commission**

The Skeena Fisheries Commission (SFC) is the Skeena Basin aboriginal organization that focuses on fisheries management, science, and conservation. The SFC signatories are the First Nations with traditional territory in the Skeena drainage and includes the Tsimshian, Gitxsan, Gitanyow, Wet'suwet'en, and Lake Babine Nation. The Commission, as directed by signatory First Nations, responds to management and access priorities relating to the broad aboriginal interest in the fisheries resource. The Commission is committed to four principles:

- ☐ The aboriginal right to fish for food, social, ceremonial, and economic purposes
- ☐ The dependence on the fisheries resource as a mainstay of economic, social, and culture well-being
- □ After conservation needs for threatened stocks, the aboriginal right to fish supersedes non-aboriginal fishing interests
- □ Each participating First Nation is obliged to protect, conserve, and fish the fishery resource according to traditional law.

The Commission is mandated to find meaningful ways to exercise and gain the recognition of inherent aboriginal rights as they pertain to the management of the resource, its conservation, and local access to SFC and ESSR fisheries. Each First Nation in the SFC maintains its own bilateral relationship with DFO.

The SFC operates through a traditional consensus model, whereby Commissioners who form the governance committee represent nation level interests. Each nation commissioner acts as the communication vehicle between the Nation and the Commission. Commissioners direct the SFC's progress by providing governance and accountability for its resources and projects, as well as advocating the nation's interests at a watershed level. Commissioners set priorities, review plans and reports, and carry SFC plans and policy back to their Nations. For the most part, SFC commissioners have been the fisheries portfolio managers in their respective Nation's administration.

Each First Nation retains respective fisheries program managers, with program staff usually composed of enforcement personnel, biologists, and technicians. The Skeena Fisheries Commission Technical Committee is largely composed of the various nation's fisheries program staff. SFC Nations place a premium on local capacity development, with many of the local community college fisheries technician programs taught from SFC-developed curricula. SFC has a known administrative and delivery capacity.

Skeena Fisheries Commission's strategic plan is guided by its vision of continuing to enable member Nations' access to and management of the fisheries resource. SFC's operational plan includes providing training and capacity development, technical information and survey support, planning information and support, and where appropriate, providing services such as technical proposal development, GIS support, and hydro-acoustic surveys.

A solid legal foundation for First Nation fishery rights extends over fisheries resources and their management. SFC's participation in allocation decisions, the actual allocation, and benefits of the fishery reflect this priority. SFC First Nations desire economic development in the fishery that respects aboriginal rights.

# **Skeena Basin Planning**

# Federal Fisheries Policy and Planning Initiatives

This section describes key federal planning mandates and processes with relevance to the Skeena Basin. Federal legislation that includes the *Department of Fisheries and Oceans Act, Fisheries Act, Oceans Act, Navigable Waters Act, Species at Risk Act*, and the *Constitution Act* 1982, drives a wide variety of orders, policies, regulations, and plans pertaining to the Pacific coast and inland waters. Other federal government legislation establishes Environment Canada, Indian and Northern Affairs Canada, Parks Canada, and the Canadian Environmental Assessment Agency. Important legislation and policies pertaining to the Skeena Basin and PNCIMA are the *Species at Risk Act, Fisheries Act, Oceans Act,* and the Wild Salmon Policy.

Additionally, a great number of salmon policies and programs play a key role in Pacific salmon management. Under the umbrella of the "New Directions" policy, initiatives include: An Allocation Policy For Pacific Salmon, A Policy For Selective Fishing In Canada's Pacific Fisheries, Improved Decision-Making Discussion Paper, and the Wild Salmon Policy. As well, the Pacific Salmon Treaty, the Aboriginal Fisheries Strategy (AFS), and the British Columbia First Nations Treaty Process have far-reaching implications in regard to First Nations and salmon.

# Salmon Recovery Plans

Presently, the Kitwanga, Lakelse, and Morice-Nanika systems are showing low returns of adult sockeye and low recruitment rates from those returns. Constraints to sockeye production in those systems differ, but in general, it is thought they stem from a combination of problems related to the mixed stock fishery, poor early marine survival, and the alteration of critical spawning and rearing habitat.

The *Species at Risk Act* is driving forward pre-emptive recovery plans that have been jointly established by the DFO and the Kitselas First Nation for Lakelse sockeye, the DFO and Gitanyow Fisheries Authority for Kitwanga sockeye, and the DFO and Wet'suwet'en Fisheries for Morice-Nanika sockeye. These three recovery plans will evaluate factors limiting to sockeye production and assess specific habitat modification or cumulative effects to spawning or rearing habitat. Subsequently, strategies and actions will be implemented to enable future sustainable populations given natural variability and sustainable FSC harvests. There is potential for other stock recovery plans in the future.

# Wild Salmon Policy

The Fisheries Act and the Constitution Act 1982 provide the legal context for the Policy for the Conservation of Wild Pacific Salmon, commonly known as the Wild Salmon Policy (WSP), which is a significant new approach to salmon conservation. The WSP goal is to restore and maintain healthy and diverse salmon populations and their habitats. The goal, objectives, and strategies pertinent to the conservation of wild Pacific salmon will be guided by four principles: conservation, honour obligations to First Nations, sustainable use, and open process. Skeena Fisheries Commission agrees that there is a significant need for an articulated Wild Salmon Policy.

The Wild Salmon Policy five-step planning procedure includes:

- Providing an overview report that identifies the conservation units (CU) exploited by fisheries in each planning unit, with information on their biological status, key habitat, and ecosystem constraints. Based on this information, priorities will be established that will be addressed in integrated salmon management plans.
- ☐ Identifying resource management options and alternative management options that reflect a realistic range of different approaches addressing management priorities.
- □ Establishing biological, social, and economic performance indicators that directly relate to the biological, social, and economic objectives.
- Assessing the likely impacts of management alternatives and the relationships to the indicators allowing the likely "net effect" relative to a base case over a projected period.
- Selecting the preferred management alternative. This will involve tradeoffs among different biological, social, and economic indicators due to differences in priorities and managing risk.

The decisions made for each planning unit will collectively form the regional strategic plan for management of fisheries and watersheds. The WSP plan will include activities and management actions to be undertaken over a medium to long-term framework. It will also stipulate explicit biological targets for individual CUs and aggregate CUs, and where appropriate, anticipated timeframes for rebuilding efforts.

With the recent release of the WSP, it is clear that more definitions are needed as to what and how certain sections of the proposed framework will work and be implemented. An overall challenge to the WSP structure is that first priority be accorded to First Nations, that they have full involvement in the management, and where appropriate, in the rebuilding of threatened stocks in their territories. Balancing of socio-economic issues must include First Nations access to the resource even at low abundance.

An important challenge for the WSP framework is to maintain and restore habitat on an ecosystem basis. Various questions arise in regard to that objective. How is this going to proceed on the operational and strategic levels? What is critical habitat in relation to conservation units? The jurisdiction for land, freshwater, and resource development lies with the provincial government. How will WSP be reconciled with provincial Land and Resource Management Plans in the Skeena Basin, which tend to be vague and are not legally enforceable in regard to fish and fish habitat? Logging-related damage to specific fish habitat was documented through the provincial Watershed Restoration Program; whom, and through what mechanism is this damage going to be mitigated? What protocol is proposed to assess cumulative impacts to fish habitat in Skeena sub-basins?

A tripartite agreement involving federal, provincial, and First Nations which focuses on habitat protection and restoration with enforceable objectives and committed funding is a prerequisite to successful implementation of the WSP objective: maintaining habitat and ecosystem integrity.

In managing fisheries for sustainable benefits, the Policy seeks to balance social and economic values with biological values. It is not clear that balanced outcomes will adequately conserve Skeena wild salmon. It is presently unknown how social and economic assessments will acknowledge and respect First Nations culture and linkages with salmon.

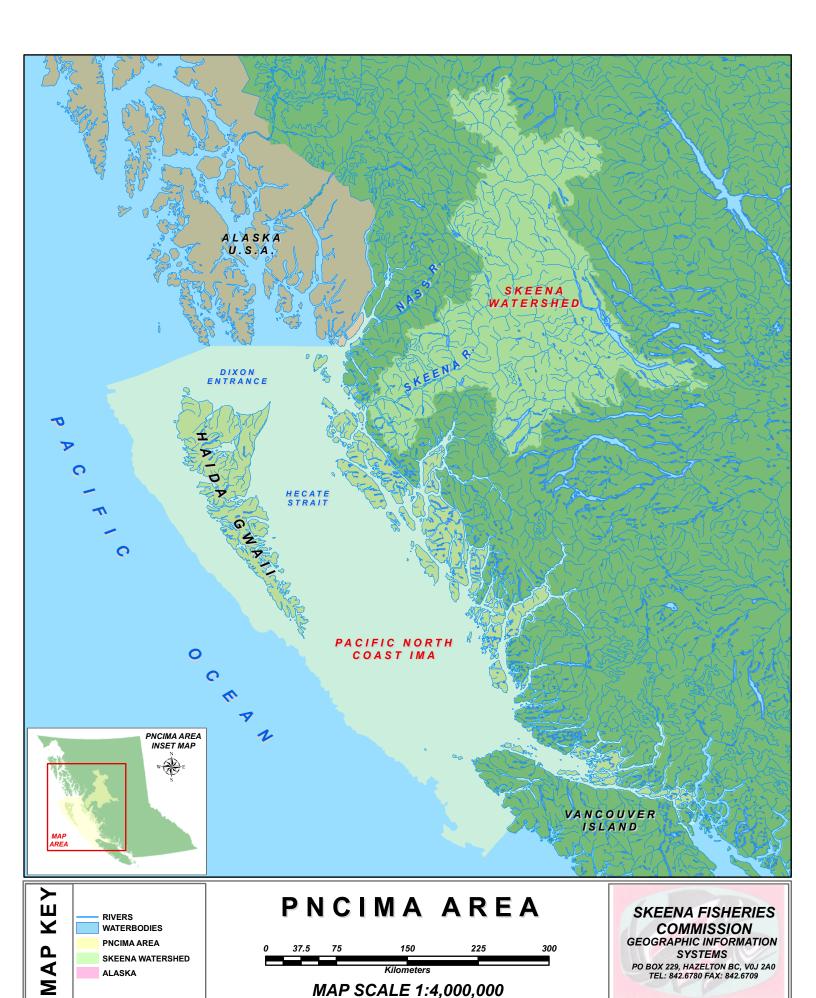
For Skeena Basin salmon: chinook, sockeye, coho, pink, and chum, the planning costs for stock assessment and habitat assessment will be large. Complex unknowns will need to be defined for conservation units and the Skeena fish ecosystem as a whole, including cumulative effects to habitat. This is a key requisite of characterizing and identifying planning priorities, selecting resource management options, establishing performance indicators, and reviewing the interrelationships among these planning steps. A potential challenge to all aspects of the Policy will be government commitment that describes medium to long-range funding arrangements.

# Pacific North Coast Integrated Management Area

The PNCIMA planning process, as proposed, will collaboratively develop and implement an integrated management plan to guide and coordinate all activities occurring in or affecting the PNCIMA planning area, which currently includes estuary, coastal, and marine waters. This planning process is based first and foremost on an understanding of the coastal and marine ecosystem structure and function.

The DFO and the Skeena Fisheries Commission (SFC) agree there is a need for ocean and coastal zone management planning and that current discussions are an important step forward. The PNCIMA concept must continue to develop as ecosystem understanding proceeds. From a watershed perspective, SFC understands the value of the PNCIMA planning process for the Skeena Basin: there is the need to replace interim direction, address declines in marine resources, and break the pattern of implementing ecosystem de-stabilizing developments such as net pen aquaculture, mixed stock fishing activities, over-fishing of benthic and pelagic stocks, and offshore oil and gas development.

PNCIMA planning is of interest to the SFC because of the ecosystem linkages between the ocean and coastal zones, and the Skeena Basin. Salmon are the most visible linkage between ecosystems. Pacific salmon, *Oncorhynchus* spp., have been for thousands of years, and continue to be, intricately connected to First Nations cultural history and economy in the Skeena Basin. A key theme of Pacific salmon is that they are anadromous and semelparous, meaning they spend a portion of their life in the ocean and return to freshwater to spawn, after which they die. Their habitat includes the freshwater watershed of origin and a large portion of the Northeast Pacific Ocean. This is where Skeena salmon acquire 95% to 99% of their biomass as they grow into adults.



# Northern B.C. Salmon Integrated Fisheries Management Plan

The Northern B.C. Salmon Integrated Fisheries Management Plan (IFMP) is an annual plan directed towards managing the fisheries that harvest sockeye, coho, pink, chum, chinook, and steelhead salmon in the north and central coast areas. The IFMP contains comprehensive decision guidelines that set out the rationale for management decisions and it considers a number of factors including consultation with advisors, historical practices, and the review of previous years' fishing practices and outcomes.

The objective for Skeena River sockeye is to ensure that exploitation rates are maintained at sustainable levels. Maintaining wild Skeena River sockeye stocks is the key objective while providing an abundant harvest of the enhanced stocks. Aggregate sockeye stock management is risk adverse to ensure that the exploitation rate of individual stocks does not exceed sustainable levels. For 2005, the Canadian commercial exploitation rate will be guided by estimated run size. For runs of one to two million, an exploitation rate of 26 percent will be targeted, as long as there is enough weekly escapement to ensure a total annual in-river abundance of 1,050,000. For runs of two to three million, the allowable exploitation rate will be increased to 31 percent; for runs of three to five million, 41 percent, and for runs of over five million, the exploitation rate will be capped at 45 percent.

The objective for north coast chum is to minimize fishery impacts on these fish to the greatest degree possible while still maintaining fisheries targeting other species. The objective for north and central coast coho is to operate Canadian fisheries below a 15% exploitation rate ceiling. The objective for Skeena steelhead is to operate Canadian fisheries within a 24% harvest rate ceiling for aggregate Skeena steelhead, and within 37% for early-timed Skeena steelhead.

The objective for management of FSC fisheries ensures that, subject to conservation needs, first priority is accorded to First Nations to harvest fish for FSC purposes. Under the AFS, commercial licences are purchased and then transferred to First Nation communities. The Skeena Inland Economic Opportunity program involves the transfer of commercial licences to be fished inland by Skeena First Nations.

For Skeena River sockeye and pink salmon, all ESSR fisheries will operate selectively with live release of all non-target species. For Skeena River sockeye, an in-river surplus will not be declared below the Babine River confluence due to the mixed stock sockeye run downstream. Once the surplus sockeye have moved into the Babine River, many of the weaker wild stocks have moved into their natal streams to spawn, and an ESSR fishery may be considered. In Babine Lake, sockeye surpluses immediately in front of Pinkut Creek and Fulton River spawning channels can be harvested at a much higher exploitation rate if required.

Once a commercial fishery has been conducted at the mouth of the Skeena River, and a sockeye surplus is determined in the Babine River, then an ESSR opportunity may be declared in the Babine River and Lake. Due to uncertainty in estimating escapements, the surplus amount in the river will be half of the estimated over escapement. For allocation purposes, this surplus will be split in half again, and half will be available to the Gitksan Watershed Authority to be harvested in the Babine River, while the other half will be available to the Lake Babine Nation to be harvested at the Babine weir.

# Federal-Provincial Joint Planning

Federal-provincial joint planning focusing on fish and fish habitat in the Skeena Basin is uncommon. Federal and BC Government agreements include the Agreement on the Management of Pacific Salmon Fishery Issues and the Agreement for Inter-jurisdictional Cooperation (1999). The main federal-provincial planning program in Skeena Basin was the Skeena Watershed Fish Sustainability Planning (WFSP) process.

WFSP was initiated in 1997 by the federal and provincial governments with the intention of producing "long-term strategic plans that are watershed based and that integrate fish production, harvest management, and habitat protection." The Skeena Watershed Fish Sustainability Planning (WSFP) process was brought to life in 2000, but for the most part, died in 2002. The Skeena WFSP was valued in terms of information compiled. The Morice subbasin WFSP process stayed afloat until 2004, but sank due to a lack of budget. Issues in the non-implementation of Skeena WFSP relate to policy questions, allocation of staff resources and funding, and uncertainties about participating in watershed planning. The process generally appeared confused and unfair to some public participants, who participated in the process until it was abruptly terminated.

# **Provincial Planning Processes**

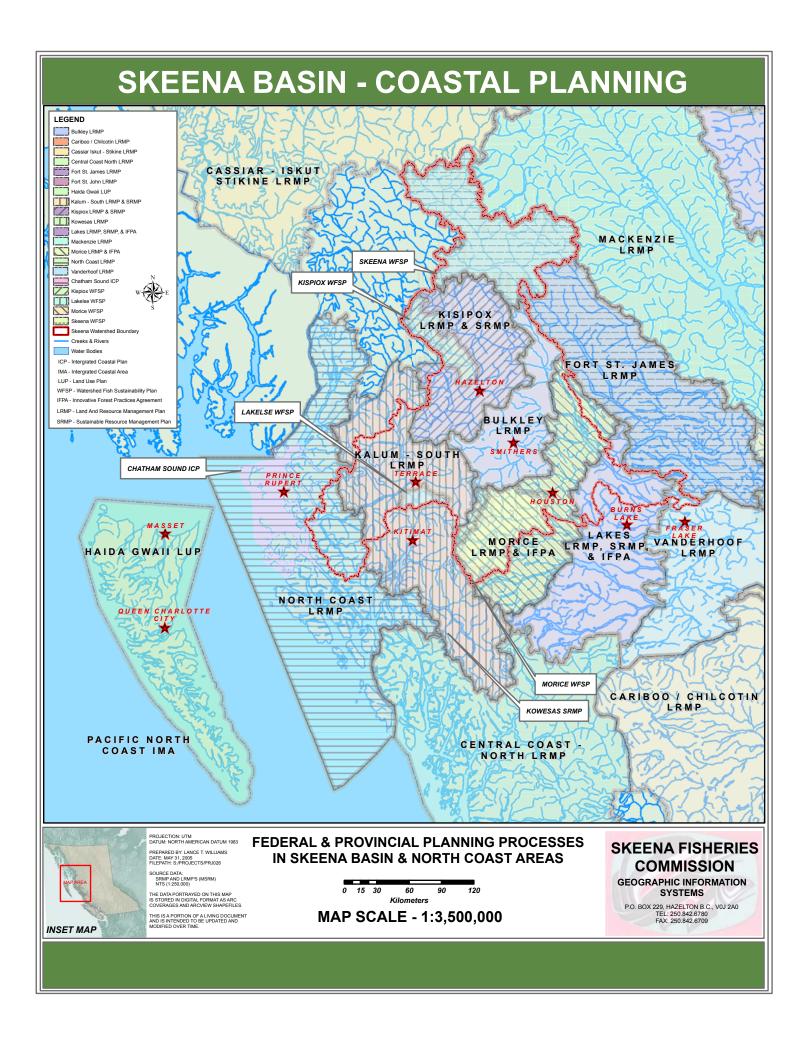
# Provincial Land and Resource Management Plans

The provincial government has the legal obligation to manage and conserve provincial Crown land and natural resources. Numerous legislative statutes and policies set the context for land and resource use planning. Provincial policies are not legally binding, although they provide high-level guidance that provincial statutory decision-makers must consider.

A Land and Resource Management Plan (LRMP) as part of the provincial planning framework is a broad plan or vision of how the land will be used in the future. It is a form of "integrated" planning that attempts to balance environmental, economic, and social objectives by considering multiple land and resource values. The planning scope and scale that LRMPs use is the sub-regional 1:250,000 scale.

LRMPs in the Skeena Basin typically correspond to Timber Supply Area boundaries. LRMPs within Skeena Basin include: North Coast, Kalum, Kispiox, Bulkley, Morice, Lakes, and Fort St. James. LRMPs describe resource management objectives and strategies for general and specific zones in the plan area. Monitoring committees have the intent of monitoring to allow the public and government agencies to assess whether resource management and development activities are consistent with the LRMP.

Experience in the Skeena has shown that some monitoring committees are effective, while others are not. In any case, monitoring committees have no legal recourse if the LRMP is ineffective. Ministerial downsizing, budget cuts, and centralization of services, especially to the ministry mandated with water, fish, and fish habitat responsibilities, have left many LRMPs without effective implementation.



In general, the linkage between LRMPs and fish habitat conservation is not effective due to the non-specific language used and the lack of enforcement of LRMP objectives through legislated statutes.

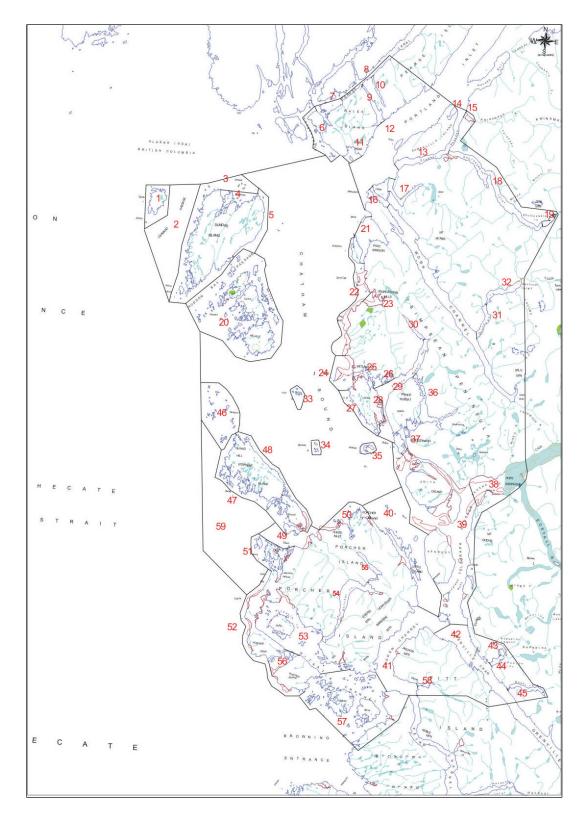
Sustainable Resource Management Plans (SRMP) are a new generation of sub-regional planning; to date, only the West Babine SRMP has been conducted in the Skeena Basin. This plan focuses on timber development, though timber quality and quantity analysis has been weak. The plan utilized minimum resource information and values and is considered by local residents to essentially enable status quo timber development. The Kispiox SRMP and Kalum SRMP are near completion.

## **Provincial Coastal Planning**

The province's comprehensive approach to coastal planning is known as the Coast Sustainability Strategy. The purpose is to define and implement ecosystem-based forest management, initiate economic measures with First Nations as well as establish the Coast Sustainability Trust. The Coast Sustainability Strategy focuses on economic diversification in coastal areas, with an emphasis on opportunities for First Nation communities. Coastal zone planning may occur at the strategic level such as the North Coast LRMP, or at the local level such as the Chatham Sound Coastal Plan. Coastal plans focus primarily on the provincial jurisdiction of the foreshore areas and address economic development and diversification, environmental threats, land and resource conflicts, First Nations issues, and support informed decision making in coastal areas.

The Chatham Sound Coastal Plan area includes the foreshore and nearshore areas of the mainland coast and the islands from the mouth of Portland Inlet to Browning Entrance, including Khutzeymateen and Work Inlets. Linkage between the Chatham Sound Coastal Plan and the North Coast LRMP is the harmonization of the land—water interface. Coastal communities have experienced significant economic decline due to reductions in commercial fishing. The Chatham Sound Coastal Plan has the potential to benefit the Tsimshian communities seeking opportunities to diversify their economies in a sustainable economic development manner.

Tsimshians have used Chatham Sound for millennia and the use and health of its resources remain vital to their cultural and economic well-being. Tsimshian First Nations have concerns about the many current uses within the Plan area and desire greater participation in coastal planning and development activities. Resolution of conflicts and competing coastal uses is an important factor that is driving the plan. Despite early progress and significant involvement on the part of local residents and First Nations, the Chatham Sound Coastal Plan process was halted due to a lack of ministerial capacity and concerns of how to integrate it with the North Coast LRMP.



Chatham Sound planning area and units Courtesy of BC MSRM.

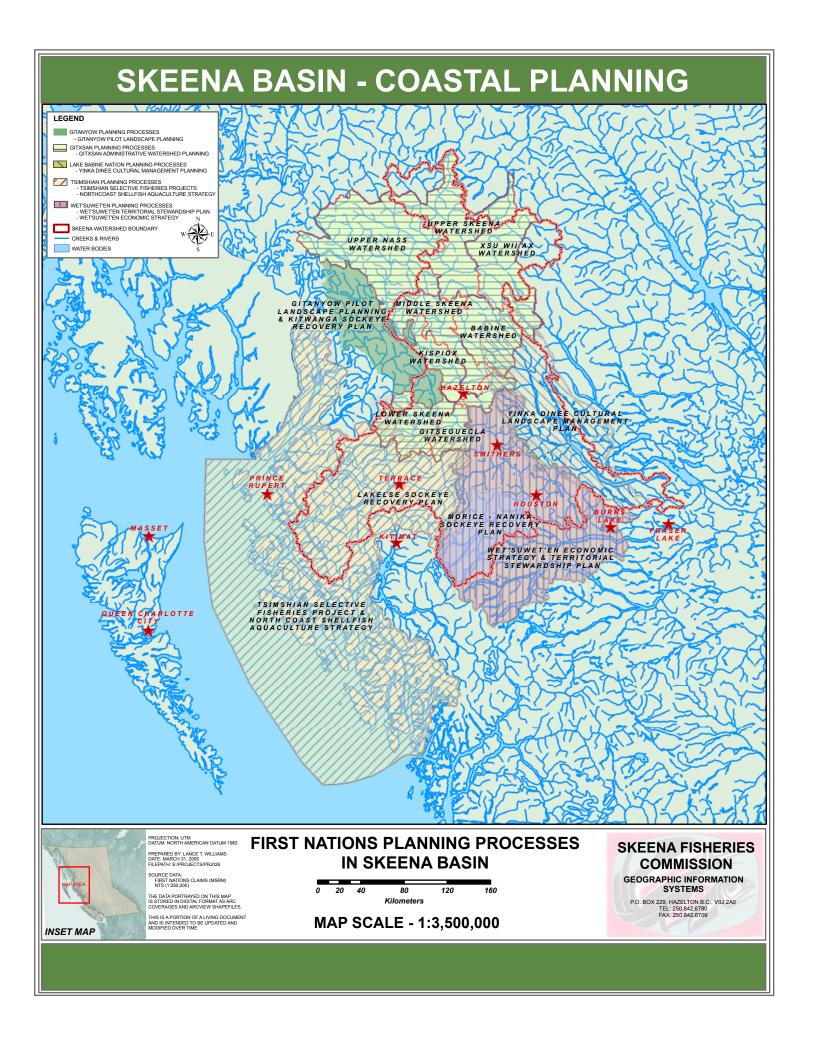
## First Nations Planning Processes

A wide range of First Nations planning processes have been conducted or are being contemplated in the Skeena Basin and estuary. These plans range from nation level cultural revitalization and strengthening, to economic development, to community well-being, to land and resource use plans. Major planning categories generally include: arts, language, and culture; community development; employment, training, and entrepreneurship; health and healing; housing; justice; youth services; and natural resources. Two overall factors define planning efforts: traditional use and occupancy that establishes aboriginal rights and title, and economic development strategies that will facilitate increased quality of life. Bringing forth First Nations culture is an all-inclusive element common to the majority of plans.

Planning related to fisheries management, traditional use and occupancy, and land and resource issues are emphasized here. In general, planning tools are based on the natural and cultural features of the territories, which can be used to make balanced resource stewardship decisions, help create economic development, and communicate First Nations ecosystem management, cultural knowledge, and values. Every Skeena Basin First Nation has mapped cultural perspectives for their territories, some to a more sophisticated degree than others. Cultural perspectives important for planning include ownership, resource access, land and aquatic use areas and patterns, geographic place names, and areas of significant cultural importance. First Nations territories are key to planning, and maps are the keys to the territories.

Maps can be and often are used to link oral history with the physical territories, link place names with associated ownership, and to portray resources and distribution in the past and in the present. The information relating to aboriginal land and aquatic use information has been gleaned largely from Elders. In communicating aboriginal principles, values, and interests, it is important to preserve as much as possible the context and absolute meaning. The aboriginal perspective can be lost in translation, which can lead to an impasse; for example, aboriginal land uses on the landscape level that have been or could be impacted by industrial resource use patterns. Various types of resource disturbance have affected aboriginal land uses differentially. Rolling these effects into resource planning that will have long-term cultural and economic benefits is challenging.

The major function of First Nations plans has usually been to delineate and protect aboriginal rights and heritage resources, to communicate cultural perspectives and values, to facilitate economic development, to provide input into numerous types of higher-level plans including fisheries, forestry, and mineral development, and to increase treaty preparedness. In many cases, planning will go on for years; often, short-term components such as information acquisition and compilation are part of larger plans that identify goals, objectives, strategies, and targets, which in turn, lead to implementation and monitoring. Plan components may be supported by a distinctive funding program supported by government initiative or by other sources.



### Ned'u'ten

Planning in Lake Babine Nation (LBN) has been centred on documenting traditional land use and occupancy that has close connections to present day fisheries, forestry, mining, and tourism sectors. LBN has been focusing on fisheries, forestry and training and capacity to support economic development initiatives. The recent mountain pine beetle infestation has had a major impact on forestry values in their traditional territory.

Traditional use and occupancy programs over the years culminated in Yinka Dinee, a Lake Babine Nation Cultural Landscape Management Plan. This plan focuses on a long-term economic development strategy that takes into consideration community needs and goals, the natural resources of LBN territories, as well as identifying human resource development needs and building capacity. Short-term components include forest worker training, cultural assessment training, tourism feasibility studies, and woodlot operations. This plan dovetails with the Ned'u'ten Fisheries Strategic Plan.

The Ned'u'ten Fisheries Strategic Plan is intended to guide further development under the Aboriginal Fisheries Strategy, treaty negotiations, and fisheries-related economic development activities. The plan proposes to expand the Ned'u'ten Fisheries mandate to include economic development activities, and to advise LBN on all management aspects pertaining to fisheries and aquatic resources within the traditional territory. Areas of potential growth include:

- ☐ Management of the food, social, and ceremonial fishery
- □ Management of the commercial surplus sockeye fishery
- Management of resident stocks
- Management of fish habitat
- ☐ Fish and habitat enhancement
- □ Enforcement
- ☐ Involvement in science, monitoring, and assessment
- □ Economic development, particularly a fish processing plant
- □ Information management
- ☐ Training and capacity development
- ☐ Treaty negotiation

Recently, Lake Babine Nation has been involved on a number of levels in the Morice LRMP, which overlies a large portion of LBN traditional territory. Formal agreements were established for LBN participation in the following three capacities:

- To provide technical input into the development of plan products;
- □ To develop land use planning recommendations in an inclusive planning forum;
- To define principles, anticipated scope, and outcomes as a member of a government-to-government forum.

The Morice LRMP table's Final Land Use Recommendation Report has been submitted to government; however, Lake Babine Nation is still engaged in government-to-government negotiations with the provincial government on the LRMP. LBN did not participate in the Lakes LRMP, which covers an adjacent area, due to concerns over infringement of treaty rights and the lack of human and financial resources to adequately participate.

### Wet'suwet'en

Wet'suwet'en planning has been extensive on the Nation, Clan, and House scale. These activities have revolved around traditional land use and occupancy, treaty negotiations, and government and third party interests in the fisheries, forestry, tourism, and mining economies. The Office of the Wet'suwet'en was incorporated in 1994 for the purpose of relating to the BC treaty process. The Office has five main departments: Fisheries, Lands and Resources, Human and Social Services, Economic Development, and Treaty. Five major agreements with BC and Canada, as well as participation in the provincial Landscape Unit Planning Process, have supported numerous Wet'suwet'en planning endeavours such as the:

- □ Wet'suwet'en Cultural Heritage/Archaeological Initiative
- □ Wet'suwet'en Forest Sector Action Plan
- □ Wet'suwet'en Tenure Project
- □ Wet'suwet'en Trail Strategy
- □ Wet'suwet'en Tourism Strategy
- □ Wet'suwet'en Economic Strategy
- □ Wet'suwet'en Burning for Berries
- □ Wet'suwet'en Territorial Stewardship Plan
- □ Morice Watershed Restoration Program

Under the Office of the Wet'suwet'en planning umbrella, Wet'suwet'en Fisheries, Wet'suwet'en Tourism, and Wet'suwet'en Land and Resources have complementary strategic plans that focus on traditional land use and occupancy, and economic development. Cultural heritage resource programs supporting traditional use have been moving forward since 1985. These studies are important for establishing beyond a doubt Wet'suwet'en presence on their territories and setting the stage for present day planning, policy development, and economic development. These undertakings include various levels of forest management activities, the establishing and maturing of tourism ventures, and the rolling out of the Wet'suwet'en Territorial Stewardship Plan. Wet'suwet'en Fisheries, Moricetown Enterprises, Kyah Industries, and Wet'suwet'en Enterprises largely implement economic development initiatives.

The Wet'suwet'en Fisheries Strategic Plan is intended to guide further steady development under the Aboriginal Fisheries Strategy, treaty negotiations, and fisheries-related economic development activities. The principal areas of focus are to gain access to fish and to rebuild the Morice-Nanika sockeye stock. The strategic plan envisions moderate and steady growth for management and treaty negotiations, stock assessment and biology, enforcement, and habitat, with the present staff upgrading and expanding their skill set. The Wet'suwet'en Fisheries operational plans include the development of food fishing plans, commercial sales planning, catch monitoring, tagging, and tag recovery plans. The Chiefs and Wet'suwet'en communities approve the plans.

The Morice–Nanika Sockeye Recovery Plan is an initiative of Wet'suwet'en Fisheries and the DFO with the purpose of rebuilding the Morice-Nanika sockeye, the most important sockeye stock in the Bulkley watershed, to historic levels. Low stock productivity of the Morice-Nanika stock limits FSC and commercial fishing. Initial planning has included information acquisition, compiling a background report, and developing a technical review of the enhancement options and an assessment of their success.

#### Tsimshian

The Tsimshian Tribal Council (TTC) was created in 1988 as a central organization for coordinating important issues for members of the Tsimshian Nation. Planning by the Tsimshian Tribal Council has been underway since that time, with the primary purpose of securing the recognition of aboriginal rights and title to lands, waters, and resources the Tsimshians have occupied. The wide range of resource interests includes fisheries, forestry, and wildlife with the overall plan to inventory, protect, map, manage, and access lands, water, and resources.

TTC member communities have all completed traditional use studies that provide a strong base for future land and water planning efforts. Tsimshian endorsement of a protocol agreement on land use planning and interim measures was guided by an earlier tripartite accord on lands and resources. The accord commits the Tsimshian to cooperate in developing community-based land and water use plans and to negotiate interim agreements on forestry, aquaculture, ecotourism, and fisheries. The Coast Sustainability Strategy has also been an important consideration that links planning and economic development with funding directed through the Coast Sustainability Trust.

Planning that revolves around fisheries, freshwater, and marine uses has been extensive with programs established that include but are not limited to:

- ☐ Halibut Stewardship and Conservation Program
- Oolichan surveys
- □ North Coast Shellfish Aquaculture Strategy
- □ Kitsumkalum Watershed Restoration Program
- □ Kitselas Canyon Development Project
- Selective Fisheries Project
- □ North Coast Water Quality and Biotoxin Program
- Cruise ship tourism opportunities
- North Coast Marine Baseline and Sea Lice Research project

The Tsimshian First Nations of Kitselas, Kitsumkalum, and Allied Tsimshian Tribes briefly participated in the Kalum LRMP, but withdrew in 2000, creating the Tsimshian Stewardship Committee (TSC) to initiate their own land and resource use planning process on areas of traditional use and occupancy. The North Coast LRMP (NCLRMP) planning table incorporated the Tsimshian Stewardship Committee (TSC) that expanded to represent Kitselas, Kitsumkalum, Metlakatla, Lax Kw'alaams, and Gitxaala First Nations. The TSC functioned to bring a variety of sectorial information to Tsimshian communities, host government-to-government discussions, and bring community based land and marine use plans to the LRMP planning table. Presently, government-to-government discussions in regard to the NCLRMP continue to address and refine aspects that are of significance to the Tsimshian.

Tsimshian Stewardship Council and the Turning Point First Nations initiative have established a shellfish aquaculture plan that will support training, infrastructure, and relationships to develop a viable industry. Joint Provincial and Federal program funding are supporting the plan and implementation process. Kitselas is currently involved with the Lakelse Sockeye Recovery Plan, which is a partnership with federal, provincial, and community interests with the intent to restore the Lakelse Lake sockeye populations and their critical habitats.

## Gitanyow

Gitanyow First Nation has a deep cultural relationship with their lands, water, and resources. Gitanyow First Nation planning continues to be based on traditional land use and occupancy, which in the present is closely linked to fisheries, forestry, tourism, and a variety of other development activities. Over the last fifty years, large portions of their territories have been impacted by non-aboriginal resource development, and more recently, by inclusion in the Nisga'a treaty settlement.

Gitanyow has conducted traditional use studies that includes comprehensive mapping products. These studies enabled planning that has supported economic development, treaty negotiations, policy development, intergovernmental relations, and numerous territorial planning initiatives. These programs include but are not limited to:

- ☐ Gitanyow Governance Project
- ☐ The Ayookxw/Constitution of the Gitanyow Peoples
- □ Kitwancool Land Research
- ☐ Gitanyow History Project
- ☐ Gitanyow Traditional Use Study
- ☐ Gitanyow Economic Development Strategy
- ☐ Gitanyow Resource Management Program
- ☐ Gitanyow Fisheries Strategic Plan
- ☐ Gitanyow Wildlife Management Plan
- □ Kitwanga Watershed Restoration Plan
- ☐ Gitanyow Territory Huwilp Plan
- ☐ Gitanyow Pilot Landscape Planning Project
- □ Kitwanga Sockeye Recovery Plan
- ☐ Gitanyow Tourism Strategy

Gitanyow did not participate in the Kispiox LRMP process due to concerns that participation would prejudice ongoing litigation against the provincial government. In 2000, Gitanyow was involved in the Kalum LRMP process based on a parallel and linked process reflecting a government-to-government relationship with the Province.

Presently, Gitanyow has initiated two major planning processes involving their land and resources. In partnership with DFO, Gitanyow Fisheries Authority has initiated the Kitwanga Sockeye Recovery Plan with the intent to rebuild the stock to historic abundance levels and restore critical sockeye habitat. Constraints to Kitwanga sockeye production are not well understood; it is thought they stem from a combination of problems related to the mixed stock fishery and the alteration of critical spawning and rearing habitat.

The recently established Gitanyow Pilot Landscape Planning Project involves Gitanyow's interests in the Kispiox and Cranberry Timber Supply Areas (TSAs). The purpose of this facilitated planning is to promote sustainable forest management and to integrate Gitanyow's forests, wildlife, and fisheries interests. The process will use existing inventory information to provide guidance to Gitanyow, licensees, and the Ministry of Forests in subsequent planning and management decisions. Key final plan products include, but are not limited to: maps of Gitanyow cultural values and interests, ecosystem network maps, and management objectives for selected resource values.

#### Gitxsan

Similar to other Skeena Basin First Nations, Gitxsan planning generally focuses on traditional land use and occupancy in relationship to fisheries, forestry, mining, oil and gas, and tourism developments, as well as Gitxsan economic development initiatives. Traditional use and occupancy planning programs have included traditional use studies, territorial resource inventory and assessment, cultural heritage investigations, archival and oral history research, watershed-based planning, and extensive mapping efforts. A considerable amount of economic development planning and implementation based on traditional use has taken place, although a lack of funding programs is an ongoing problem.

Since the early 1980s, Gitxsan planning has operated at the Nation, Clan, and House levels. Preparation for *Delgamukw* litigation required large-scale research and planning efforts. This was followed in the 1990s by comprehensive field and office programs that functioned to provide technical support such as GIS capability, traditional ecological knowledge, landscape ecosystem functioning surveys, watershed inventories and watershed restoration plans, analysis and planning; forest management and analysis, and fisheries management.

Lands and resources and economic development planning carried out at the Nation level is under the auspices of the Gitxsan Treaty Office through nine Watershed Sustainability Planning tables, as well as by the Gitxsan Watershed Authorities. The nine geographically affiliated planning tables are aggregates of House territories. The Watershed Sustainability Planning tables are as follows:

_	Lower Skeena (Gitwangak)	Babine
_	Gitsegukla	Upper Skeena
_	Mid Skeena	Sustut
_	Suskwa	Nass
_	Kispiox	

The purpose and essence of the Gitxsan Watershed Sustainability Planning tables are for the further development of Gitxsan plans and policies, and to create and develop economic initiatives and opportunities within the watersheds and territories. Most of the watershed planning tables have conducted inventory and analysis research, but have not assembled plans due to funding inadequacies. Presently, the Gitsegukla Watershed planning table and Ministry of Forests are involved in the Gitsegukla Pilot Landscape Planning Project, which focuses on integrating Gitsegukla House groups' interests and values through an ecosystem-based management system.

The Gitxsan did participate in the Kalum LRMP, but did not participate in the Kispiox, Bulkley, Fort St. James, or Mackenzie LRMPs due to a lack of government-to-government relationship and their concern that participation would prejudice ongoing aboriginal rights and title litigation against the provincial government.

#### Discussion

Currently, planning initiatives revolving around Skeena Basin fish populations and their habitat are for the most part directed by the federal, provincial, and to a small degree by aboriginal governments. Plans and policy exist at numerous scales driven by legislation, policy, or management dilemmas. In reviewing the different planning levels and processes, it is clear fish and fish habitat conservation values are not represented by an overarching mandate, vision, or structure among the federal, provincial, and aboriginal governments. The rational management of fish and fish habitat in Skeena Basin can be perceived as an elusive and difficult matter.

All First Nations in the Skeena Basin are involved in federal and provincial planning processes to one degree or another. This is due to asserted aboriginal rights and title and the government's responsibility to avoid unjustifiably infringing upon any aboriginal rights that might exist. The implementation of strategic and operational planning may have the potential to infringe on aboriginal interests. The key to the consultation and accommodation process is the principle of meaningful consultation, summarized as: it must be diligent, reasonable, meaningful, carried out in good faith, and carried out with the intention of considering and addressing aboriginal interests.

DFO on behalf of the federal government is responsible for protection and conservation of fish and fish habitat; however, the management of water, land, and resources are a provincial responsibility. As well, First Nations assert that fish are an intricate part of their culture and thus they should have substantial management roles and responsibilities.

Provincial planning through LRMPs has not implemented fish habitat objectives and strategies to date. From all appearances, this is principally due to inherent limitations of the LRMP process and contrasting ministry mandates. In addition, there is a lack of funding, manpower, and commitment to implement the objectives and strategies that form parts of the plan direction.

Across the Skeena Basin, LRMPs differ on their approaches to planning, monitoring, and effectiveness. Fort St. James, Kalum, Kispiox, and Bulkley LRMPs do not have government-to-government relationships with First Nations asserting title in those areas. Overall, LRMPs and SRMPs work well for timber extraction planning; but are weak in regard to conservation of fish and fish habitat.

There is an emerging consensus that fish management in the Skeena Basin needs to be conducted differently to avoid the conceptual conflicts that are endemic to the current approach. The most pressing problems include controlling undesirable effects of the mixed-stock fisheries and limiting/restoring habitat degradation related to industrial development. These basic dynamics intertwine with the jurisdictional split among levels of government, the sector-by-sector planning and policy approach, and the complexity of anadromous fish and the Skeena ecosystem.

Linkages between planning processes and specific plans are either absent or weak. For example, the Wild Salmon Policy proposes to "maintain habitat and ecosystem integrity," though for all intent and purpose, this is a provincial mandate. The framework or mechanism within WSP stating how this will occur does not exist. There is no known linkage between WSP and PNCIMA? A question related to the PNCIMA planning process is how will an ecosystem-based integrated management plan deal with the Skeena Basin and its estuary without robust linkage mechanisms? The intent here is not to denigrate the WSP, but to point out jurisdictional and structural problems.

Policy makers often need to show quick results in order to maintain program support. But, short-term thinking can exacerbate problems in the Skeena Basin and may not be the best way to achieve long-term results. An example of this is the Watershed Restoration Program that was terminated when the government changed, although troubling fish habitat problems remain.

The highly dynamic nature of the Skeena Basin ecosystem, combined with migratory fish exhibiting a complexity of genetic diversity and habitat preferences, make management exceptionally difficult. The partial or full consequences of habitat alterations or cumulative effects within Skeena sub-basins are poorly understood and very difficult to predict with any degree of accuracy and certainty. These basic problems have resulted in a Skeena Basin management model that does not produce many measurable benefits to fish conservation, or First Nations, or meet larger objectives such as social and economic well-being. The current management model may serve the public less well in the future as demands to fish access increase, the influences of climate change on fish and aquatic resources manifests, and as ecosystem integrity values are increasingly desired.

# **Moving Forward**

Over the last century, plans, policies, and programs have evolved to guide and bolster decision-making that do not recognize First Nations rights to healthy fish economies and integral ecosystems. It is an opportune time to build a new structure that is more multipurpose, operates on an ecosystem-based regime, institutes capacity for planning and conflict resolution, and achieves interagency policy integration.

Within the Skeena Basin there is an emerging debate on ecosystem, social, and economic governance and how these relate to neighboring ecosystems such as the coast and oceanic zones. SFC would like to apply ecosystem-based integrated management planning to the Skeena Basin. Practically, the knowledge and information is available to move the concept forward. It is important to note that moving forward is not about designing and implementing the perfect and ideal Skeena Basin integrated management system. To begin with, it would be wise for the integrated management process to rely on existing programs. Key to the concept is improving existing management program outcomes with formalized coordination and harmonization mechanisms.

Presently, there is significant opportunity to improve the efficiency and effectiveness of existing federal, provincial, and First Nations management programs. Conceptually, Skeena Basin integrated management could be applied incrementally, with implementation occurring in plans or policies with high priority needs. Potential incremental steps could combine structural changes, adoption of guiding principles, intergovernmental integration, policy integration, planning, building better capacity for conflict resolution, or a combination of these needs.

Moving Skeena Basin integrated management forward will depend on the political will of senior federal, provincial, and First Nation decision makers. Recognition of the need for a more integrated approach arises from the failure of existing management programs, or in connection with new management measures that require a more holistic or integrated method. Failure of existing programs is often characterized by conflicts among competing sectors, which potentially can slow down or bring decision making to a halt. Skeena Basin integrated management could be established initially as a process applied to the Wild Salmon Policy, though it could be implemented through other plans or policies that require it. How and when to move Skeena Basin integrated management forward is a subject for future discussion.

# **Bibliography**

- BC Ministry of Forests. 1998. Bulkley Land and Resource Management Plan. Victoria, BC.
- BC Ministry of Forests. 1999. Fort St. James Land and Resource Management Plan.
- BC Ministry of Forests. 2001. Lakes District Land and Resource Management Plan. Victoria, BC.
- BC Ministry of Forests. 2001. Skeena-Bulkley Region Resource Management Plan. Smithers, BC.
- BC Ministry of Forests. 2001. Kispiox Land and Resource Management Plan. Amended. Victoria, BC.
- BC Ministry of Sustainable Resource Management. 2001. Kalum Land and Resource Management Plan. Victoria, BC.
- BC Ministry of Sustainable Resource Management. 2002. BC Coast Strategy. Victoria, BC.
- BC Ministry of Sustainable Resource Management. 2004. Morice Land and Resource Management Plan. Final Land Use Recommendation Report. Victoria, BC.
- BC Ministry of Sustainable Resource Management. 2005. North Coast Land and Resource Management Plan: Final Recommendations. Victoria, BC.
- BC MELP and DFO. 2001. Watershed-based Fish Sustainability Planning: Conserving B.C. Fish Populations and Their Habitat. A guidebook for participants. Vancouver, BC.
- Cicin-Sain, B. and R.W. Knecht. 1998. Integrated Coastal and Ocean Management: Concepts and Principles. Island Press. Washington, C.C.
- DFO. 1999. Canada's Oceans. Monograph No. 7. Ottawa, Canada.
- DFO. 2002. Canada's Oceans Strategy. Our oceans, our future. Ottawa, Canada.
- DFO. 2002. Canada's Oceans Strategy. Policy and operational framework for integrated management of estuarine, coastal and marine environments in Canada. Ottawa, Canada.
- DFO. 2004. Ocean Planning in the North and Central Coasts. Presentation to the Skeena Fisheries Commission. Vancouver, BC.
- DFO. 2005. Canada's Policy For Conservation of Wild Pacific Salmon. Vancouver, BC.
- Gitanyow Hereditary Chiefs. 2005. http://www.gitanyowchiefs.bc.ca.
- Gitksan Watershed Authority. 2004. GWA 2004 Strategic Plan. Hazelton, BC.
- Gitxsan Hereditary Chiefs. 2005. <a href="http://www.gitxsan.com">http://www.gitxsan.com</a>.
- Gottesfeld, A.S., K.A. Rabnett, and P.E. Hall. 2001. Conserving Skeena Fish Populations and Their Habitat. Skeena Fisheries Commission. Hazelton, BC.
- Gottesfeld, A.S. and K.A. Rabnett. 2005. Skeena Watersheds Fish Populations and Their Habitat. Skeena Fisheries Commission. Hazelton, BC.
- GTO Watershed Planning Group. 2002. Gitxsan Watershed Sustainability Planning. Hazelton, BC.
- Jamieson, G. and Chang-Ik Zhang. 2005. Report of the Study Group on Ecosystem-based Management Science and its Application to the North Pacific. PICES Scientific Report No. 29. Sidney, BC.
- Jones, R., M. Shepert, and N.J. Sterritt. 2004. Our Place at the Table: First Nations in the B.C. Fishery. First Nations Panel on Fisheries. Vancouver, BC.
- Kitselas First Nation-Gitselasu. 2005. http://www.kitselas.bc.ca/
- Kitsumkalum First Nation. 2005. http://www.kitsumkalum.bc.ca/
- McPhee, M. and L. Lilley. 2005. Developing Linkages Between Watershed, Harvest Management and Coastal Planning in the Skeena Watershed/North Coast Area for More Effective Integrated Management. Quadra Planning Consultants. Coquitlam, BC.
- Northwest Tribal Treaty Nations. 2005. http://www.nwttgroup.com.

- Riddell, B., 2004. Pacific Salmon Resources in Central and North Coast British Columbia. Pacific Fisheries Resource Conservation Council. Vancouver, BC.
- Skeena Fisheries Commission. 1991–2005. Various unpublished documents.
- Skeena Fisheries Commission. 2005. Ocean Zone Planning. SFC Technical Committee. Hazelton, BC.
- Skeena Fisheries Commission. 2005. Kitwanga Sockeye Recovery Plan: Backgrounder. Hazelton, BC.
- Skeena Fisheries Commission. 2005. Morice-Nanika Sockeye Recovery Plan: Backgrounder. Hazelton, BC.
- Talon Development Services. 2002. Ned'u'ten Fisheries Strategic Plan 2002. Burns Lake, BC.
- Trusler, S., A. George, S. Schug, K. Rabnett, and F. Depey. 2002. Wet'suwet'en Territorial Stewardship Plan. Office of the Wet'suwet'en. Smithers, BC.
- Tsimshian Hereditary Chiefs. 2005. http://www.tsimshian-nation.com.
- Vance, E. and Associates. 2004. Ecosystem overview of the BC Central and North Coast and Queen Charlotte Islands: Human system component.
- Wood, C.C. and L.B. Holtby. 1998. Defining Conservation Units for Pacific Salmon Using Genetic Survey Data. Nanaimo, BC.
- World Wildlife Fund. 2004. Northeast Pacific Marine Region fact sheet #1. Prince Rupert, BC.