Being Gitka'a'ata: A Baseline Report on Gitka'a'ata Way of Life, a Statement of Cultural Impacts Posed by the Northern Gateway Pipeline, and a Critique of the ENGP Assessment Regarding Cultural Impacts.

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Executive Summary

This report does three things: (1) It critically assesses the ENGP Application with respect to the effort to identify and assess cultural impacts; (2) It describes the cultural practices and worldview of the Gitka'a'ata, which together constitute their [cultural] identity;[1] and (3) It analyzes the [cultural] impacts posed to this culture by the (ENGP) and associated tanker traffic. Overall, the report finds that the proposed ENGP project is likely to result in significant adverse individual harms and potentially irreparable cumulative harm to Gitga'at culture.

The ENGP Report

The ENGP Application is critically reviewed in detail in Appendix A (p.107-8). The review shows that the ENGP's identification and assessment of cultural impacts is inadequate. The ENGP defines "culture" using two shallow metrics: 1) language retention, and 2) participation in hunting/fishing/gathering. Two further metrics are identified: retention of Aboriginal Cultural Knowledge (ATK) and consumption of country foods. But these important aspects are explicitly *excluded* from Enbridge's impact assessment due to lack of measurable parameters and data, a claim which overlooks the fact that the Tsimshian (including the Gitga'at) cultural world has been well researched and documented for more than a century.

At best, the ENGP Application looks only peripherally at potential cultural impacts via consideration of language retention and ATK. But these are considered *only* in relation to construction and routine operations of the pipeline, not to potential spills of any kind. Further, when considering language and ATK, the only things discussed are (1) cultural impacts due to native language speakers' exposure to non-native-speaking co-workers while participating in jobs related to the pipeline; and (2) cultural impacts due to time spent in the wage economy and so away from hunting/fishing/gathering activities, respectively. Potential significant impacts from routine marine transport activities or potential oil spills are not considered.

Key Cultural Practices

Being Gitka'a'ata is a process of knowing, conducting and carrying forward a set of cultural practices. Gitka'a'ata cultural institutions and practices are currently vulnerable. Both the people and their institutions have suffered due to Canadian residential schooling policy, the ban of feasting and potlatching (1885-1951), and social welfare legislation facilitating the removal of aboriginal children from their families and placement in foster care. Currently, the Gitka'a'ata are working to restore their cultural life. Gitka'a'ata's cultural **resilience** is dependent on their ability to sustain themselves and their culture through use of their marine and land resources in a manner consistent with their customs, laws and traditions.

[1] What we mean by culture follows closely anthropological definitions and can be found on page 22.

Among the cultural practices that emerged as most central to Gitka'a'ata culture were:

(1) **Travel to harvest sites and the dissemination of cultural knowledge:** Much of this occurs at Old Town (Laxgal'tsap), Kiel (K'yel) on Princess Royal Island; Clamstown on Fin Island, and K'dis koos (Kishkosh) Inlet. These are the sites – along with the main village of Txałgiw (Hartley Bay) – where children learn about harvesting, cutting and drying fish, seaweed and other resources through watching, listening, and participating. Elders pass on songs, knowledge about survival (for example, how to read the tides and winds) and traditional medicines, and they teach language while at the harvest sites. Extended families nurture and maintain their ties; children and youth are told traditional stories and family histories. Harvesting and distribution of traditional foods occur along lines of kinship but also in accordance with relationships of respect (age), and perceived need. Many Gitga'at residing in Prince Rupert return to Hartley Bay and/or join their families at these harvest sites for seasonal food production. [pp. 35-38; pp. 70-75]

(2) **Cultural knowledge of territory, and practices of feasting, naming and oral history:** Txałgiw (Hartley Bay) is where the Gitka'a'ata have **feasted and harvested** for many generations and where access to their resource base has been relatively undisrupted. The Gitka'a'ata belong to **clans or houses** represented by crests and they carry names worn previously by their ancestors. **Crests and names** originate in oral traditions called adawx (ancient lineage histories), which transmit knowledge connecting Gitka'a'ata clans and lineages to specific sites and territories, to historical events, to named ancestors, and to parallel spirit villages of other species. At **feasts**, chiefs and their clan/ crest groups affirm their relationships to their territories through inviting other clans to witness important transactions and feed on traditional foods harvested by the clan from their territories. **Naming, clan membership, participation in feasts and ceremonies**, and the transmission of cultural knowledge are central to Gitka'a'ata identity and culture. [pp. 27-34; pp, 49-61]

(3) **Cultural Landscapes, Sites and Placenames:** Gitka'a'ata regard the land and sea as spiritually enriched by the traces of their ancestors: petroglyphs, burial sites, shell middens, culturally modified trees and other important cultural, historical and/or archaeological sites. Through placenames and associated oral traditions they are linked to spiritually potent sites associated with *naxnox* (super-natural beings or wonders) from whom their crests and names derive. Such cultural land-and-seascapes are also the key to Gitka'a'ata oral history and memory. Consequential actions in the territory are thus as much a transgression of the land and waters as they are a transgression of cultural knowledge. [pp. 91-97]

In sum, both the larger environment and sites and species key to harvesting, food sharing, feasting, and memory are of high cultural significance.

Key Cultural Impact Findings

Assessment of cultural impacts is based on review of the effects of selected oil spill modeling scenarios outlined in the Gitga'at environmental impacts report.

The ratings used in the main body of this report to characterize and assess the cultural impacts associated with oil spills range from "low" to "severe". The term "significant" (as per the Canadian Environmental Assessment classification) used in this executive summary is equivalent to the highest (severe) rating in the report.

Food Harvesting

- Twenty (20) marine species are *critically important* to Gitka'a'ata cultural practices of food harvesting, processing, use and distribution (see Table 1, pp 43).

- The complex of community ties maintained through harvesting and distributing foods would be significantly affected by even a small spill[2] at IRA 2 (clams, cockles, rockfish, sea cucumber and sablefish). A majority of seaweed harvesting sites (63%) would be covered by a small spill at IRA 6.

- Significant impacts to Gitka'a'ata culture would result if salmon and herring stocks in Gitga'at territory (all species) were adversely affect by an oil spill, an outcome that is expected given an oil spill of >5,000m^3.

- Irreparable cultural impacts would result in the event of a large spill because such a spill would have significant adverse effects on the food species most important to the harvesting, use and distribution of marine foods by the Gitga'at.

Feasting

- All 9 marine foods reported as critically important to the Gitga'at cultural practices of feasting would be adversely affected by oil spills (Table 4, p.64 and Table 5, p.65) including but not limited to adverse effects to edible seaweed with a small spill in IRA 6, or to cockles with a small spill in IRA 2.

- A medium spill in IRA 2 would result in significant impacts to feasting due to adverse effects on crab and harbour seal.

[2] IRA 2 and 6 are the two spill areas modeled by Bocking et al (2011).

- A large spill would have significant adverse effects on *all* food species that are critically important to feasting (again, Table 5, p.65).

Knowledge Transmission

- Of the 13 species key to knowledge transmission (harvested at 10 sites equally key to knowledge transmission in Table 6, p.78), severe cultural impacts would result in the event of a small spill. This is because a small spill would adversely affect 50% or more of Gitga'at harvest areas (see Table 7, p. 79)

- Significant impacts to inter-generational knowledge transmission would occur in the event an moderate oil spill affected 50% or more of Gitga'at harvest sites, and/or as the result of significant adverse population- or stock-level effects from an oil spill >5,000m^3.

- Potentially irreparable impacts to knowledge transmission would occur in the event of coverage from a large spill, because such a spill would adversely affect all of the species most important to knowledge transmission.

Cultural Landscapes

- Potential impacts to cultural landscapes are evident in the maps and text beginning on p. 98 (98-101). Along the tanker route proposed by the ENGP project there exist approximately 60 Sm'algyax placenames associated with oral traditions and historical events. Their retention as knowledge depends to a large degree on visiting these places. The highest density areas are around Old Town, Hartley Bay, the southern end of Fin Island, and the area near Kiel.

- Local observations regarding routine operation and shore impacts of ship traffic from ENGP indicate high disruption of seaweed harvest; and trapping, long line and trawling gear for food and ceremonial fish. Impacts from pollution and stigmatization of beaches, inter and sub-tidal foods and key sacred sites are all anticipated as a result of the project (pp.80-81)

- Gitga'at territories include significant sites and cultural resources, which carry knowledge about Gitka'a'ata history and are valuable because they are *in place*, known and accessible. These include: rock carvings (petroglyphs), which represent the family histories of ancestors at these sites; shell middens, culturally modified trees, the remains of ancient plank houses, and fish traps that mark sites of pre-existing villages and sites where harvested foods were processed. Burial sites are highly revered and respected. Oil spills could adversely impact these iconic eco-cultural places.

- Oil spill modeling indicates impacts to cultural sites and features will be significant. Petroglyphs at Old Town are particularly vulnerable given their location below 'high tide'.

Irreparable Cultural Impacts (Impact to Multiple Cultural Keystones)

- Cultural keystones are the marine species considered critically important to food, harvest, distribution, knowledge transmission and feasting. Eight food species fit this criterion. They are: edible seaweed, halibut, cockles, salmon, crab, prawns, herring eggs (on giant kelp fronds), and harbour seal (see Table 8 and Figure 3) and the report's summary (pp.105).

- A number of cultural keystones including seaweed, cockles, and crab are predicted be to adversely effected in the event of a small spill. Salmon, herring eggs, and seal will also be affected by medium spills. Large spills would cause adverse effects to cultural keystones lasting for many years (p. 106).

- Cumulative cultural impacts resulting in potentially irreparable harm would occur as a result of adverse effects on cultural keystone species.

What Gitka'a'ata Themselves Say (from interviews):

"If we have an oil spill it's going to damage all the wildlife and the fish in the ocean. The ocean and the land is our deep freeze. So it's important for us to get it across to Enbridge where all our food comes from and where we store it." Male, Blackfish Clan

"I don't know; if your food sources were decimated, would you have any reason to celebrate [feast]? Would you have the where-with-all to celebrate? Why would you want to?" Male elder, Eagle Clan.

Question: Can you imagine Gitka'a'ata culture without traditional foods?
"It's like losing your identity. It's like wiping out your mind. It would be like taking somebody's brain and wiping out your whole identity. It's like giving somebody amnesia. That's what it would do to our community. It would wipe out everything. It would wipe out our life as we know it." Woman, Raven Clan.

"So the effects of tanker traffic and the Enbridge pipeline … to me, it's just the death of a people I guess. The end of a way of life. So when that happens, that would be just like a landslide … You're asking me to give this up as part of my life. My great grandchildren, I want it for them, I really want it for them." Woman elder, Blackfish

"We're interconnected with what we harvest and how we need to look after what's there to harvest; so is the language, so is the culture, all of that is together and if any part of it is disrupted, we start losing it." Male, Blackfish Clan

"[Children] go to [harvest] camps, it's part of the school curriculum going out on the lands and the territories, viewing the spirit bear, the whales, our way of life. And [learning] how we have to look after the land, our respect for the animals, that's all part of our living. So [if the pipeline is approved] they won't have that anymore." Woman elder, Blackfish Clan

"I just came back from the Enbridge meeting and I felt like sitting there and raising my hand and saying, "Why don't you just ask Enbridge to name their boats smallpox?"" Woman, Raven Clan

"Just the wake of these boats going by is going to wash away our shores, our beaches, and it's going to drive, you know, the noise. The little fish that live in the rocks, the eels and things -- just the noise of these things are going to drive them away …" Woman elder, Blackfish Clan

"I've never thought about not having seaweed or not having any of this seafood that we have. We're rich in food. We were rich, we have been rich, in all the provisions from the sea, and not only the sea but the land. It's just our whole way of life." Woman elder, Blackfish Clan

"But can you imagine having [herring roe on kelp] just gone? That was one of the first things that came to mind was how just flushing a toilet would affect your harvest, let alone an oil spill!" Woman, Raven Clan

"If the tankers are going to go through, does anybody stop to think who's going to help us if there's a spill? What does it really feel like in your soul? I'm scared. I'm scared because we'll lose all the food that I'm cooking and preparing and all that, but I just think about that all the time." Woman, unknown

"Stay out. We don't want to lose what we've got. That's the only way I can put it – it's quite simple. I'm a wood-carver and fisherman, so I'm sure if we did have some kind of accident out here with one of those ships -- one way or the other it's going to affect the trees. I carve wood. I know for a fact the bears and wolves help fertilize the trees that are along the rivers by taking fish into the tree line. So one way or the other, it's going to affect the land. There's no way they can replace what will be gone. I don't think there is a way. That's one of the reasons, I think I can safely say, the whole community is against Enbridge coming through here. If they want to come out to the coast somehow, find another place, don't come here … I don't think it's comparable to anything. This is pretty much the biggest thing that's gone on in my life. I think this is one of the biggest things that's happening to our community." Male, clan membership unknown

Introduction:

The aim of this report is to set forth a baseline portrait of Gitka'a'ata culture and identity and the consequential damages to that world posed by the Enbridge Northern Gateway Pipeline (ENGP). By identity is meant, "being Gitka'a'ata" as both a process of knowing, conducting and carrying forward a set of culturally-endowed practices, and the ability to maintain a semblance of confidence and certainty that the world as the Gitka'a'ata have woven it -- into the very fabric of all life, land and seascapes -- will continue to exist. This encompasses but is not limited to the passing on of knowledge to future generations, including knowledge of harvesting, processing, food distribution; knowledge of technologies and materials as part of peoples heritage; and knowledge of weather, tides, and waters for survival; as well as knowledge of harvesting of traditional medicines and knowledge regarding health and well-being. Also key are: practices of distribution of food, trade across kinship ties and across First Nations, reciprocity between the human and natural world; and knowledge of narratives or stories including clan histories, site- and species- specific stories indicating both ancestral histories and moral codes for behaviour. Knowledge of territory, knowledge of places and placenames (and the links between these and harvesting alongside memories of ancestors passed), and the practice of naming as a priority for learning and passing on knowledge are also central to the Gitka'a'ata world. Finally, the report covers the multiple links between history and territory, clan systems and feasting and other aspects of ritual and ceremonial practices as these relate to land and seascapes and Gitka'a'ata identity.

Impacts to this world, posed by the Northern Gateway Pipeline project are analyzed through the amalgam of descriptions of those cultural practices fundamentally important to the Gitka'a'ata, followed by analyses of impacts using two central evaluative tools: a rating scale highlighting the most culturally significant resources within Gitka'a'ata traditional territory, most particularly those of the marine and coastline environment, and an evaluation of cultural impacts that would follow given small, medium or large spill scenarios modeled in Bocking et al (2011). As the relationship for Gitka'a'ata between cultural and ecosystem integrity is virtually inseparable, the report focuses on the cultural resources, practices and overall ways of life that are most important and most subject to disruption given the proposed pipeline/tanker route. It also highlights throughout, Gitka'a'ata statements of harm and impact in reference to published literatures, Gitka'a'ata historical and oral records, and existing scholarship/ ethnographic studies of Hartley Bay and surrounding areas.

Lastly, Appendix A provides an evaluation of how cultural impacts are addressed (or not addressed) in the ENGP proposal. Their analysis is insufficient in the extreme, and thus intensifies the risk of underestimating the ENGP's potential impacts on Gitka'a'ata culture.

Methods:

This report was initiated by the Gitga'at First Nation in Hartley Bay, which sought an independent assessment of potential impacts to their culture likely to ensue if the proposed Northern Gateway Pipeline Project is approved. In September 2011, all relevant ethnographic

literature about Tsimshian societies was reviewed, especially that concerning Gitka'a'ata people whose home village is Txałgiu (Hartley Bay).[3] A review was also conducted of the Enbridge Northern Gateway Pipeline proposal, assessing its content regarding potential cultural impacts to the Gitga'at. The research benefitted from access to resources generated by the Gitga'at First Nation: traditional food studies; reports on the history and social organization of the Gitka'a'ata; their extensive collection of maps detailing harvest areas, cultural sites, and placenames. In addition, Nancy Turner provided material from her extensive archive of fieldnotes and published works generated with Gitka'a'ata people over the course of eleven years (see also, Turner 2005; Turner and Clifton 2009; Turner and Thompson 2006).[4]

Strategies for assessing potential impacts to Gitka'a'ata culture were developed through initial, in-depth consultation with local cultural experts and Band personnel in a series of meetings throughout September and October. In October 2011, travel to Hartley Bay included work with local experts to develop key questions for this assessment. In order to understand Gitka'a'ata perspectives on the potential for cultural loss and damage posed by the ENGP, an open-ended interview protocol was used including the elicitations of Gitka'a'ata definitions of culture. From these preliminary interviews / discussions important categories were identified including: the Cultural Significance of food and family, harvesting and use; knowledge transmission (especially occurring through harvesting sites and food production practices); feasting; and, cultural landscapes. Underlying these key cultural institutions and practices is a customary system (of leadership, descent, etc.), which defines the cultural meaning of marine and terrestrial territories largely through maternal relationships (clans and houses).

This preliminary work informed the development of questions about Gitga'at identity included in the "Social Impact Survey" reported by Gill and Ritchie (2011). Input into the design of questions about identity was sought, and these questions were pre-tested in Hartley Bay. Interview questions developed through this process included: Why do people feast? How are

[3] See Barbeau 1917b; Barbeau 1917a; Barbeau and Canada 1961; Beynon 1941; Beynon 2000; Boas 1902; Boas and Tate 1916; Cove 1986; Garfield 1939; Garfield and Wingert 1967; Halpin 1993; Halpin and Seguin 1990; Donald 2003; MacDonald and Cove 1987; Marsden 2002; Miller 1993; Roth 2002; Roth 2008; Seguin 1993; Seguin 1993; Miller 2000; Miller, Eastman, and Garfield 1984.

[4] Gitga'at Elders and knowledge holders who provided information in Turner's research and that of Judith Thompson (Thompson 2006; Turner and Thompson 2006) include: Matthew Bolton, Ellis Clifton, Kyle Clifton, Chief Johnny Clifton and Helen Clifton, George Clifton, Graham Clifton, Jennifer Clifton, Pearl and Billy Clifton, Mona Danes, Archie Dundas, Beatrice Dundas, Elizabeth (Betty Lou) Dundas, Belle Eaton, Ian Eaton, Tony Eaton, Dwayne and Stephanie Fisher, Ernie Hill Sr. and Marjorie Hill, Ernie Hill Jr. and Lynne Hill, Cam Hill, Eva Ann Hill, Clare Hill, and their families, Jeanette Innes, Tom Kingshott, Myrna Nayakis, Danny Danes, Elliott Reece, Margaret Semigool ("Goolie") Reece, Clyde Ridley, Edna Ridley, Harvey Ridley, Alan and Dolores Robinson, Annetta and Jimmy Robinson, David Robinson, Dean Robinson, Dorothy Robinson, Earl Robinson, Eddie Robinson, Gideon and Colleen Robinson and their daughters Mavis Reece and Mona Danes, Marven Robinson and Teri Jo Clifton Robinson, Myra Robinson, Nicole Robinson, Tina Robinson, John Scott (Kitselas), Bill Starr, Mildred Wilson and Dick Wilson. Several of these individuals are now deceased.

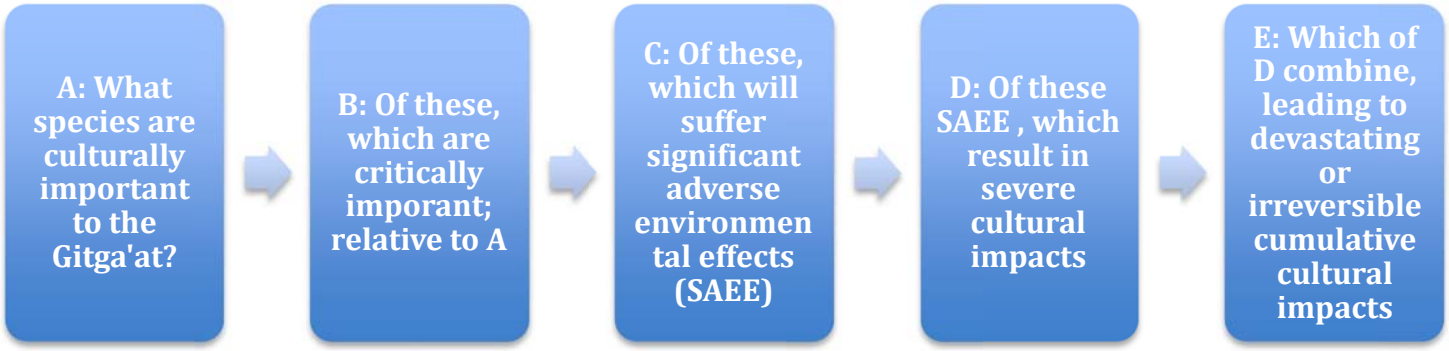
traditional foods important to culture? What happens at harvesting sites? How do people define human–animal relationships? What potential impacts would the proposed ENGP have on Gitka'a'ata culture?

Rapid ethnographic assessment techniques were used to (Low, Taplin, and Scheld 2005; Trotter and Schensul 1998) focus work directly on the ways in which Gitka'a'ata themselves perceive (the potential impacts of the ENGP on their culture. Interviewing included a representative sample of social groups (by age, cultural authority, gender, knowledge /expertise). Following cultural protocol, the hereditary chiefs of the Blackfish [Killerwhale], Eagle, and Raven clans were interviewed. In consultation with the Gitga'at First Nation, other knowledgeable persons (both elders and younger adults) were also interviewed. Both individual and group interviews were conducted and held at the Band office, at people's homes, at fish camps, and, on the ferry journey between Hartley Bay from Prince Rupert. Gitka'a'ata guides brought us to Old Town by boat, where the petroglyphs and the fall/ winter harvest camp of the Gitka'a'ata were examined. Various items of material culture were discussed and examined at this site and in people's homes including harvesting baskets and cedar bentwood boxes as well as drying racks, axes, carvings and crest designs.

Cultural impact analysis was conducted after all work on cultural practices and attributes was completed. Cultural impacts are defined in reference to potential ENGP impacts on culturally significant aspects of Gitka'a'ata *way of life* and society to the severity of disruption of ongoing Gitka'a'ata cultural use, knowledge transmission and practices dependent on and carried out within their traditional territory. Using this definition, cultural impact is derived from two indices: the cultural significance of a species or site (e.g., how critical or important these are to Gitka'a'ata), *and* the anticipated impact to these from a potential small, medium or large oil or condensate spill. Where appropriate, comments from local observations regarding shipping, wakes and pollution are noted. Several sources and types of data have been used to conduct this analysis: First, a rating of the relative importance of all foods and species important to Gitka'a'ata based on published records (Thompson and Turner 2006; Turner et al in press) a food study conducted in Gitga'at traditional territory (Fediuk and Thom 2009), interviews, expert judgments provided by Gitga'at elders and knowledge holders (including Helen Clifton, Chief Albert Clifton, Kyle Clifton, Chief Ernie Hill Jr., Chief Arnold Clifton, Belle Eaton) and those provided by Nancy Turner (report co-author, who has worked in the community since 2000). Second, for spill scenarios, modeling projections provided by Bocking et al. (2011) were superimposed on harvest maps analyzed and spatially expressed by Outhet. These are two of many possible scenarios, but the only options available for this assessment, given modeling deficiencies on the part of the proponent (Bocking et al. 2011). For placenames, maps provided by Outhet were used as was a file of names provided by Marsden. These combined data were used to evaluate overall potential cultural impacts on both specific ways of life (e.g., knowledge transmission) and cumulatively (e.g., on cultural keystone species – species on which a large cluster of fundamentally important cultural practices depend). Given the spill scenarios, the severity of potential cultural impacts to Gitga'at way of life were analyzed in two ways. The highest order cultural impacts were assigned to spill scenarios that profoundly restrict or

eliminate people's ability to 'go out' (as the Gitga'at say) on the land or water, or to do the things that bring people together and back to Hartley Bay seasonally. These are referred to as "severe at the individual species or site level" and "irreparable" at the cumulative level, when multiple cultural keystone species are involved (explained in context below). In conducting this analysis, the following sequence of steps was used (depicted in the figure below):

CULTURAL IMPACT ANALYSIS: PATHWAY/SEQUENCE OF STEPS TAKEN



(A) What species are culturally important to the Gitka'a'ata way of life; (B) which of these in (A) are *critically* important; (C) which of these *critically important* species will suffer significant adverse environmental effects (SAEE) in the event of different spill levels; (D) of these, which are *critically important* species from a cultural point of view to First Order cultural practices, and which are critically important to Second Order cultural practices. Those that were SAEE and critically important to First Order cultural practices were deemed 'severe' cultural impacts; those that were SAEE but linked to Second Order cultural practices were deemed high cultural impacts, with lesser impacts rated none, low, or moderate. Cumulative cultural impacts are combined effects discussed in the report's summary. In the executive summary, severe impacts are reported as 'significant' to be consistent with CEA terminology, irreparable ones are noted for harm to multiple cultural keystones only.

Scales and evaluations are described in the sections that detail the specific impacts discussed. The basic logic is immediately below and reflects terms used in tables in the report's main body.

Scales for individual impacts:

1. SEVERE CULTURAL IMPACT = Results from species of highest importance to 1st order cultural practice (e.g., salmon to feasting) potentially covered by 50% or more in event of modelled spill, or impacted by significant adverse population effect

2. MODERATELY HIGH CULTURAL IMPACT = (a) same coverage as above but impacting cultural practice that is substitutable or one less dependent on continued routine access to marine sites (2nd order), or (b) 30-49% coverage of species of highest importance to 1st order cultural practice

3. LESSER CULTURAL IMPACT= 20% - 29% coverage

4. LOW-NONE = >20% coverage

Scales for cumulative impacts:

1. DEVASTATING = More than 2 critically important species to a cultural practice (potentially) affected by >50% spill coverage, or significant adverse population effect

2. IRREPARABLE = approximately 50% or more of habitat covered or a significant adverse population decline effect to cultural keystones (species critically important to all three of cultural practices: community food and harvest distribution/feasting/knowledge transmission

Scales relative to CEA terminology*: In the executive summary, severe impacts are reported as 'significant' to be consistent with CEA terminology, irreparable ones are noted for harm to multiple cultural keystones only.*

Lastly, some results from survey questions on cultural identity collected as part of the social impacts report (Gill and Ritchie 2011) were used to operate as a corresponding check of our key cultural categories.

A note on analysis overall: The spill scenarios modeled are only two possible examples. Modeling spill scenarios is the proponents' responsibility; as these were insufficient, we used

those of Bocking et al (2011). Precise spill trajectories will depend on the exact location, weather, tides, etc. Hence, IRA 2 and IRA 6 are reasonable proxies only.

Environmental effects on already depressed species are of concern from a biological perspective (Bocking et al. 2011). Culturally, a parallel concern is loss of use due to ENGP effects on cultural practices that depend on intertidal/ shoreline species, which might be environmentally harmed, but also inedible or unusable due to visible oiling (leading to depressed harvesting, thus cultural impacts).

Likewise with the operational spills/ noise/ wake, no quantitative measures are available for use though the need for these is outlined in Bocking et al (2011). Qualitatively, however, this is a concern to Gitka'a'ata. Operational spills do happen, and the infrequent/unpredictable wake waves will pose more risk to harvesting activities than storm-cycle waves, because people don't go out to harvest the intertidal in a storm. Hence, ENGP's dismissal of potential effects is unjustifiably premature.

Being Gitka'a'ata: People of the Cane

"The reason that we live here is because of our history but why we're here in the beginning is because the food is. You know like the Chief that chose Old Town where the two rivers met and he drove his cane down … He chose that spot because that's where two rivers meet, that's where fish are going to be, that's where everything was. We wouldn't be here if it weren't for the food sources. So if the food sources go, I guess, there wouldn't be a reason to be here … This is where there are names for every place, every little point, where stuff happens, where trap lines were –-you know, trap lines are still important. There are the berry grounds that are owned by people. If you left, you'd lose your footing, you know? You'd have nothing because you wouldn't have your lands. And if your lands are ruined, how good are they going to be? I just can't imagine what it would be like" (Woman elder, Blackfish Clan).

Gitga'at First Nation Band Office, Txałgiw (Hartley Bay) Artist: Stan Robinson

What does it mean to be Gitka'a'ata?

"From what I've already said about the harvesting … the language, the culture, the camaraderie, the relationship that we have with the land and the sea, the feasting that we have, I keep going back to place names and language names. The connectiveness with the land; there's no better feeling then getting up at 5 o'clock in the morning and going out and harvesting something that is, every little morsel is just protected and savoured. That's what it is to me. That's what Giga'at means to me: to be able to go out and live like I've been taught to live. And if we can't do that anymore…" (Male, Blackfish Clan).

The Gitka'a'ata Cultural World

There are few better examples of the close link between culture and environment than that evidenced by the Gitga'at First Nation – both contemporarily and historically. This link is evident in virtually all definitions of culture provided to us by members of the nation in interviews, in the anthropological literature on Gitka'a'ata culture itself, and across the larger complex of First Nations known as the Southern T'simshian Peoples. The ethnographic record on Giga'at and Southern T'simshian culture is among the best records in the world, stretching well back into the late 1700s and early 1800s through the period of interactions in the coastal Hudson's Bay Company fur trade. This record is also part of the 'canon' or foundational texts of

the discipline of anthropology. Put simply, the Northwest Coast of British Columbia is to anthropology's understanding of culture what the Galapagos Islands are to scientists' understanding of biological processes. While the traditional territory of the Gitga'at First Nation is a unique area ecologically, the Gitka'a'ata as a people are also among the Northwest Coast societies that continue to contribute to our understanding of the resilience of unique cultural forms (Suttles, Sturtevant, and Institution 1990). Their diminishment, damage or loss would be a great loss to British Columbia, to Canada, and the world.

The Gitka'a'ata cultural world is highly dependent, to the current day, on their marine, foreshore, near-shore and terrestrial resources. The foods, medicinal plants, and material goods derived from these resources are the physical materials from which the Gitka'a'ata cultural world and identity are produced and re-produced across time. Thus, when speaking here of dependency, the reference is to dependency on the physical world, which is well documented elsewhere (N. J. T. N. J. Turner and Turner 2008; N. Turner and Thompson 2006; N.J. Turner 2005; N.J. Turner 2003), but also dependent culturally on the persistence of these healthy marine and seascapes. This is especially so in two important ways: First, a very large portion of the resources potentially damaged by the Northern Gateway Pipeline (hereafter NGP) are comparatively fragile marine species (Bocking et 2011), which are themselves culturally important species – key elements of the seasonal round and routine of food production for residents of Txałgiw and for Gitka'a'ata living well beyond the village site itself (especially those in Prince Rupert). These species are also so fully the basis of a nation's cultural life that removal, loss or damage to these or to the ability to harvest them, represents not only a shock to the ecological health of a nation's territory but equally to its cultural system and well-being. Such losses are often invisible in cost-benefit calculations, but may well constitute an even greater cost than more conventionally recognized economic losses; essentially a loss of the ability to maintain or restore the ways of life critically important to cultural resilience and continuity.

Second, while all cultures undergo change across time, it has long been demonstrated that change that is forced against one's will or coercively introduced, or that constitutes a profound social shock has a detrimental effect on the health of cultural identity (Kirmayer and Valaskakis 2009). The Gitga'at First Nation has faced myriad and profound social shocks from the coastal fur trade in the late 18th and early 19th century forward, including successive waves of disease epidemics and population decline due to European settlement (Duff 1964; Galois and Harris 1994; C. Harris 1994). In 1876, the Dominion government introduced the *Indian Act*, evolving legislation that deprived aboriginal societies of the right to govern themselves or to maintain key cultural institutions; it generated classifications that defined membership, racialized mobility, education, medical care and social interaction; and sought eventually to assimilate aboriginal peoples (Jamieson, Hawthorn, and Belshaw 1960). Gitka'a'ata experienced attempted assimilation and relocation under the Anglican missionizing movement of William Duncan (Campbell 1993). In spite of these things, the Gitga'at First Nation has retained a cultural and social resilience. Eagle Chief Ernie Hill spoke to the resilience of his people:

"**I always end off any interviews, any talks that I give, [by saying] "Our culture is alive and well and we want to keep it that way." And we are kind of fortunate, same with the food and other things we've talked about.**

We are isolated and our history actually is in old Hartley Bay you know, up where you were [at Old Town]. And 125 years –-124 years ago, the people were thoroughly brainwashed by this Father Duncan … He told them, "Don't worship totem poles anymore, come with me," and then they moved to Metlakatla across from [Prince] Rupert and then he got in trouble with the Church of England and then moved to New Metlakatla and that island in Alaska. Our people lasted six months and then they came back.

Six months for 27 of them, then they moved; they paddled back going towards old Hartley Bay but then they stopped here [in Hartley Bay] because the location was better, it was on the main route, had a good source of water, and it was a very good harvesting area and, for protection too, I guess.

And the name of this place is Txałgiu. In our old language it means "to paddle by," in the old Sg̲üüxs language.

They used to paddle by -- it was of course, part of the territory and it was good harvesting: cockles, clams, mussels, just whatever, on the beach. And the stream had pretty much all the species of salmon plus beaver, bear; and a beautiful sandy beach-- I remember it as a kid, that's where the breakwater is now. And so they decided to settle here."

Sg̲üüxs was a Southern Tsimshian dialect previously spoken by Gitka'a'ata. During their time at Metlakatla with Anglican missionaries, Gitka'a'ata people adopted Sm'algyax. Previously, they resided on Kitkiata Inlet at their ancestral village called Laxgal'tsap ("Old Town"). They chose to return to Txałgiu, their traditional fall camping site, used for feasts and occasions of entertainment (Campbell 1993). Of the 14 tribes of the Tsimshian Nation, Gitka'a'ata are among those who live in their traditional territory, their "ceremonial and political base" regarded as a source of cultural strength (Roth 2008).

Gitka'a'ata resilience is also demonstrated in response to the legacies of forced assimilation and loss of language due to Canadian colonial policy governing aboriginal enrollment in mainstream and residential schooling; the Canadian government's ban of feasting and potlatching (1885-1951); and the rise and fall of the fishing and canning economies on the coast (economies that integrated comparatively well with Gitka'a'ata life). Shifting Provincial and Federal legislation introduced for over a century has restricted access to traditional territories, resources, and to customary harvesting techniques and tools (Newell 1993; Harris 2008). More recent shocks include what is known as the "Sixties Scoop," an approximate twenty years during which changes in social welfare legislation facilitated the removal of aboriginal children from their families and their placement in foster care (Fournier, Bowers, and Crey 1997). "In this

postcolonial era, we are seeing communities actively grapple with, and attempt to expunge, the emotional, physical and cultural effects of [the] colonial process. This is a period of recuperation, a time of both "taking back" (not simply retrieving) a lost or damaged past and of regaining individual and community health and strength in the process" (Adelson 2009: 274). Like many First Nation peoples today, Gitka'a'ata count themselves as "survivors" of well over a century of political and religious suppression intended to prevent the transmission of cultural knowledge to successive generations.

Many with whom were interviewed for this work referred to the effects of the proposed Northern Gateway Pipeline as one in a series of devastating blows to their culture. For example, a Gitka'a'ata woman in her early forties, member of the Raven clan, and mother of two children reported:

"I said to somebody -- I don't know if it was appropriate– but I was talking to a lady, and I said, "I just came back from the Enbridge meeting and I felt like sitting there and raising my hand and saying: "Why don't you just ask Enbridge to name their boats smallpox?"

And she said, "Why did you say that?"

And I said, "Well because the Europeans came years ago and wiped out a lot of our communities with smallpox and sat there and [then] said, "Oops, I'm sorry, I didn't mean to, we didn't think of the potential harm of it to your people."

I said, "That's why Enbridge might as well name their boats smallpox, because if an oil spill hits, it will wipe out our community, our livelihood, our culture. It will wipe out everything, like smallpox did for the Europeans."

So I said, "Might as well name every boat smallpox." That's what it meant to me! It just reminded me of the Europeans coming years ago and wiping out so many reserves and cultures.

We're Tsimshian, we've got a name. We've got an identity, and when it comes down [it], to being Gitga'at. There's other communities that don't even exist anymore, that were wiped out even hundreds of years ago. A lot due to smallpox … I just found it very fitting. That's how much it hurts me. That's what it feels to me.

I know without Europeans I wouldn't be here, but there's also others that aren't here today because of it. And that's the same thing as Enbridge. All their money, they could buy us anything but it can't buy us our culture. There's no price you can put on that. You can't put a price on our cultural identity. No... it's everything to me. "

No single statement articulates more fully or vehemently a Gitka'a'ata perspective on the potential destructiveness of the Northern Gateway Pipeline, than this one. The project as

proposed, is the equivalent, she said, of a disease epidemic – comprehensive in its damage, invasive in its presence, and aggressively colonial in quality as a federally and industry-supported project capable of irrevocably changing the culture of a remote coastal First Nation.

In those parts of the report that refer to *culture*, the use of the term is distinct from meanings manifest in the reports tabled on behalf of the NGP, reports which are analyzed in Appendix A below. In brief: the Enbridge report runs 8 volumes and thousands of pages. In all of these pages, the only explicit reference to "culture" defined as "traditional culture," appears in the "socio-economic" volume and associated technical data report. Here, culture is defined in reference to the percentages of children and adults understanding or primarily using aboriginal languages; the percentage of people who had hunted/fished/trapped/gathered wild plants in the past 12 months; and the percentage of those who did so for food. Their analysis with those points does not consider Hartley Bay Gitka'a'ata. In less specific terms, the "Aboriginal Engagement" volume (5A) points to the "importance of water resources" to the community of Hartley Bay and "their belief that the risks to the ocean on which they depend outweighed any possible benefits of the Project".

To the extent that the NGP Report acknowledges potential cultural impacts, it makes no reference to any specific cultural objects of protection and absolutely no reference to the complex, well-established cultural world that constitutes the Gitka'a'ata way of life. More disturbingly, under the NGP Report section on "Potential effects of a hydrocarbon release on traditional marine use", there is mention of "cultural heritage" but this is described in such a way as to fail completely to recognize the universe of cultural phenomena that is so basic to Gitka'a'ata identity and history: this omission represents a profound gap in their analysis of impacts. The report refers instead to a: "Cultural heritage [that] often determines how one perceives the environment and the resources contained within it" [whereby] "this type of cultural knowledge and experience often leads to very different interpretations of risk and environmental sustainability than that of mainstream society". This suggests that culture is only in the mind and has little to do with established Gitka'a'ata cultural institutions and practices, which maintain continuity through attachments to their environment and territory. The report then goes on, in section 2c, to suggest that [cultural] mitigation were a spill to occur, is unrelated to impacts on an enduring way of life critically important to a people's identity and well-being. Instead the report defines [cultural] mitigation as nothing more than a cleansing ritual following a spill. Quoting section 2c under the heading of "Follow-up and monitoring": "In the event of a spill, it would be appropriate for Elders to conduct ceremonies, and to monitor effects on the environment." The profound inadequacy of this response and the naivety it reflects is simply remarkable.

Defining Culture in Reference to Anthropological Definitions

Culture is generally defined by anthropologists as a shared system of cultural knowledge and narratives as well as symbols, materials assets (especially goods, places and sites), each of which are fully informed by the environmental world in which these arose. Such symbols and

immaterial phenomena and histories linked to the environment are also the basis for and uphold the ongoing cultural institutions that govern social life. In detail:

Cultural Knowledge (Ingold 2000) and its transmission across time and generation generally includes both abstract knowledge, in the form of *epistemologies* and *worldviews*, and practical knowledge or skill. *Epistemologies* include knowledge of why and how something is or came into being, or the logic underpinning a truth, belief or justification. *Worldviews* include systems or ways of perceiving and classifying the physical, heavenly, human and nonhuman world and the social obligations that accompany these orderings of the world. *Practical knowledge or skill* is that knowledge borne of practice, including maintaining and perpetuating collective habits and deep-rooted ways of being that are learned and transmitted by the constant doing and redoing of important routines of identity and survival including hunting, fishing and harvesting, gathering, processing and storing of foods; ways of enhancing and maintaining resources; knowledge about 'right' practice of culturally appropriate behaviour, sometimes called norms for appropriate behavior; and ways in which this knowledge is acquired, exchanged and communicated (Turner, Ignace, and Ignace 2000)

Cultural symbols or symbolic systems (Sahlins 1999) include language, meaning systems, rituals, dances, songs, and traditional narratives carrying knowledge about historical and mythological events tied to place-names which are owned by a nation. Cultural assets or material culture includes more manifestly physical things which mark the histories of a people, such as totem poles, crests, etc., that are inscribed with symbols indicating particular meaning or philosophies that render the material thing a *physical-and-symbolic object of value*. This is true of totem poles as much as it is true of stories or oral histories that are attached to particular sites and territories. These examples are all symbolic phenomena to the extent that they involve the living history and ongoing expression of meanings that endow or saturate the physical world with a rich and storied content that is, literally, extra-physical. For example, a harvesting site or a petroglyph might have physical characteristics, but it is the history of what occurred there and the frequent returning to that site to continually 'feed' from that place-centric history that matters. It is an important way in which the physical and the meta-physical world work in constant concert with one and other.

Cultural institutions refer to those systems of governance, trade or exchange; systems of naming, marriage or descent; systems of decision-making (formal and informal); and systems of social organization including kinship, clans and the social ordering and assignation of rank or status (including hereditary chieftainships and domains of responsibility for people, territory and resources) (Roth 2008; Sahlins 2011).

All of these are the currency of a Gitka'a'ata person's sense of cultural identity or belonging, just as they are the currency of a nation's cultural wealth. Among First Nation Northwest Coast societies, wealth refers to both tangible and intangible property (such as names, dances, songs, crest designs and items of material culture) (Donald 2003). The interruption or prevention of transmission of these caused by routine tanker traffic or by oil and condensate spills,

compromises deeply people's ability to continue cultural practices in situ. Furthermore, resulting diminished territories or ruined resources preclude opportunities and options for harvesting and processing (see cultural impact sections below).

By way of illustration, consider halibut or salmon or edible seaweed as an integrated source of cultural wealth for the Gitga'at. Each is tied to a sense of belonging including deep feelings of identity and citizenship through Band or Nation membership and/or through membership in a Clan or House. These kinds of belonging are associated with aboriginal rights and with customary or traditional rights of ownership – to territories, names, and other kinds of ceremonial property like crests, dances, songs and objects -- as well as to responsibilities and relationships to other groups through trade and marriage ties, and responsibilities to other species and the environment as part of the reciprocity embedded in cultural knowledge (N.J. Turner 2005).

Gitka'a'ata people belong to clans or houses represented by crests and they carry names worn previously by their ancestors. Crests and names originate in oral traditions called adawx (ancient lineage histories), which transmit knowledge connecting Gitka'a'ata clans and lineages to specific sites and territories, to historical events, to named ancestors, and to spirit villages of Salmon People, for example. These connections are renewed through key ceremonial activities like feasting, and they are also reinforced daily through taboos and /or spiritual protocols which surround fishing, the treatment of animals and environments, and the disposal of animal and fish remains.

Traditional foods are considered to be part of the clans' and the Band's "resource base," foods that are in turn tied to all of these ideas about belonging. Halibut for example, are a high protein food, but the harvesting and processing of halibut also are occasions for passing knowledge on from elders to youth, and for teaching younger people about the lands and waters of their territory. Iconic food species such as halibut play a part in feasting through which clans create and nurture their relationships with other clans – especially important in rites of passage like adoptions, a boy's first kill for food, name and title transferences, and death; but also occasions like the community's first seasonal animal or seafood harvest. At feasts, clans validate their histories of ownership of territories before other witnessing clans. They attend to matters of community, and they sanction important cultural business. Traditional foods like halibut, salmon, seaweed, cockles) are harvested by lineage members and offered to guests (along with other foods) – the generosity demonstrates the abundance of the clan's territories, validates the history of resource use and production by the clan, and so also demonstrates the House history.

Cultural home, site and place-names refer to territories and sites to which people have an important affiliation, places where key events occurred historically, places where people return to; places where they go to prepare for feasting, to harvest, and to process foods (cleaning, drying, smoking, canning), often within multi-generational family and clan groups. Such places are tied to seasonal rhythms of harvesting, hunting, fishing, processing and storing food, and to

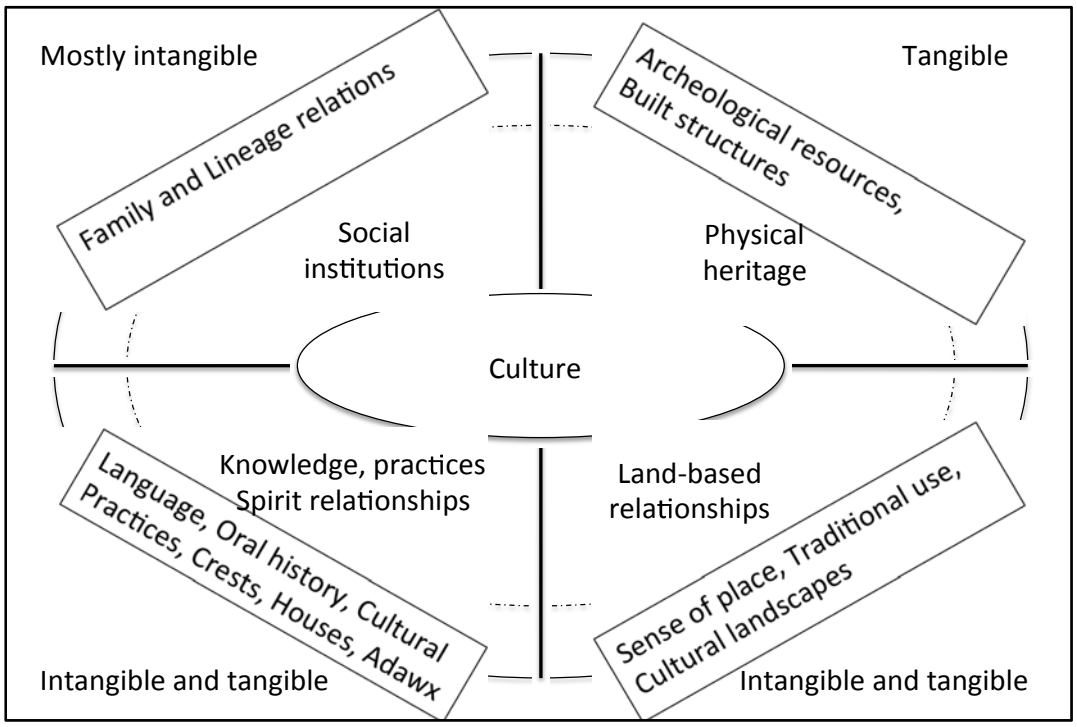
the migratory habits of species, which may be vital to winter food supply, for example. These rhythms of food procurement prompt returns to important sites within the traditional territory; they are activities through which Gitka'a'ata further develop and nurture relationships while sharing knowledge among generations.

Cultural keystone species, be it salmon or seaweed, are the physical entities from which a very large set of culturally important phenomena follow (Garibaldi and Turner 2004). They are the species people reference and use when hosting and attending ceremonial events; they are harvested or caught *with* relatives, and prepared and distributed *through* extended family networks (lineage, house or clan). Band members have rights to salmon for food and ceremonial purposes, as well as for gifting. Smoked, canned, dried, and frozen salmon also sustain families over the winter months. This is as distinct from commercially caught salmon or halibut sold to purchase other kinds of food and necessities. In short, key species like halibut, salmon, groundfish, crab, cockles, clams, shellfish of all kinds, and edible seaweeds, among other species such as crabapples, highbush cranberries, salalberries and other types of berries and western red cedar--are a medium through which Gitka'a'ata people fulfill ceremonial obligations, meet their material needs, and sustain important social and kinship networks that reassert identity and resilience.

Culture, then, is a complex set of entities that are both tangible (land/ water/resource species) and intangible (symbolic) at one and the same time, wherein land and seascapes are both the substance of and the ongoing repository of knowledge – the central basis for the practice and transmission of knowledge across generations, and the place where meanings 'live' on the land and sea (namely, narratives and oral histories that document and continue to live-in-place). As well, the land and seascape are cultural space as the site of archaeological resources, built structures, and as the sites in which relations amongst community members (across generations, kin and others) are continually established and re-established across seasonal rounds, and across time.

Figure 1. Cultural Tangibles and Intangibles[5]

[5] Figure adapted from Candler 2008, cited in Gibson et al (Gibson, MacDonald, and O'Faircheallaigh 2011).



Gitka'a'ata Identity

Identity is the lived expression of culture as fundamental to that quality of "being Gitka'a'ata" – the skills, knowledge, practices and routines that make up the fabric of Gitka'a'ata life. To verify what our prior research had correctly identified the key dimensions of Gitka'a'ata cultural life, identity questions were developed in the survey reported by (Gill & Ritchie 2011).

The survey was carried out in mid-October 2011, first in Hartley Bay (n=60), then in Prince Rupert (n=62). The sample size represented 72 percent of the eligible (>18) population in Hartley Bay, and 32 percent of the eligible population in Prince Rupert. Surveys in both areas were administered door-to-door using the Hartley Bay Band Council Membership list to identify eligible respondents. Opening questions in the survey asked respondents to report: "whether you believe that each of the following is **very important**, **important**, **somewhat important**, or **not important** to Gitga'at identity." Across multiple items exploring core statements of Gitga'at identity, there exists a remarkable consistency between the cultural categories defined above and those rated as 'very important' by 68-100% of all respondents, most well above 80% (percentages in parenthesis below all indicate % 'very important' for each item).

The culture significance of food and the environment or ecosystem services that provisions these foods is well supported by the identity statements: *having food fish (99.2%); canning, smoking and drying traditional foods* (97.5%); *sharing of traditional foods among extended Gitga'at family* (89.3%); *trading traditional foods* (68.6%); *health of Gitga'at lands and waters*

(97.5%); *knowing the ocean is your fridge* (95.9%); *the relationship between your culture and your traditional territory* (95.1%); *and having freezers to store your food* (86.9%).

Feasting and related cultural practices (e.g., naming) are also well supported by further identity statements: *feasting* (94.2%); *having fish for ceremonial purposes* (92.6%); *and Tsimshian ceremonial naming* (89.3%).

Finally, the **transmission of knowledge** in and of itself and as realized at harvest camps, and placenames as an expression of **cultural landscapes**, are all key aspects of Gitga'at identity well supported by survey evidence. Harvest camps, as a case in point, received a 100% 'very important' response. *Passing Gitga'at way of life along to future generations* (98.3%), and *knowing Tsimshian placenames* (85.2%) were also well supported as 'very important' aspects of Gitga'at identity.

All data referencing Gitga'at culture and identity as defined above are presented below as Figure 2.

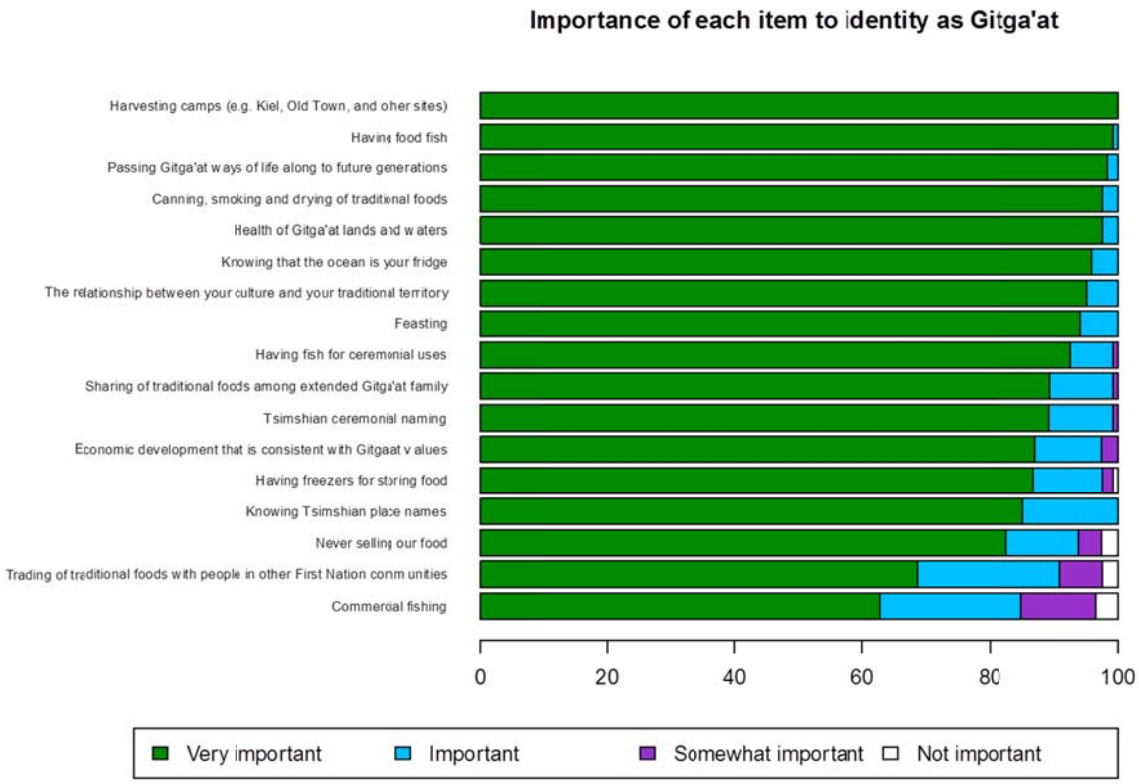


Figure 2: Importance of each item to Gitga'at Identity.

Customary Land and Sea Relationships: Leadership, social organization, naming, crests and adawx.

Given the intention of the Joint Review Panel to understand the potential impacts of regular oil tanker and tug traffic and of oil and condensate spills on Gitka'a'ata culture, they must understand the ways in which the relationship Gitka'a'ata people have with their traditional territory is threatened. Recognizing Gitka'a'ata cultural organization is critical to this process of informed decision-making. What follows is a brief introduction to: key institutions, customary leadership and social organization, naming, crests, and adawx.

Laxsgiik S'moogyet Sn Axe'et / Eagle Chief Ernie Hill:
"We have our traditional welcome, which is "*Ła ba Ła Sgan, Ła gwelga lak, Ła gwillm gawdi wineeya.*" We don't have a word for 'welcome' but we do have our form of welcome which is--spreading the mat, we're spreading the mat, where you put the table; the fire is burning to warm yourself, and the food is ready. We welcome people by feeding them."

In the Sm'algyax language, Gitka'a'ata Chiefs welcome leaders and visitors from other nations onto their traditional territories. Their welcome is an invitation to share foods harvested from territories and resource sites owned by the clan; foods which are hunted, gathered and prepared by members of the pdeex (clan or crest group) or waap (House, comprised of several related lineages). By feeding guests traditional foods, chiefs affirm their legal relationship and responsibility to the lands, waters and resources within their clan territories; they display the wealth of their territories, and the strength of the House.

> In the above survey consisting of over 120 members of the Gitka'a'ata Nation residing in Txałgiu (Hartley Bay) and Prince Rupert, fully 95.1% reported that the relationship between "culture and your traditional territory" was "very important", another 4.9% reported "important."

In Txałgiw (Hartley Bay), customary leaders or *S'moogyet* (literally, "Real Person," town chief or sovereign lineage chief, (M. Anderson and Seguin 1985) represent three clans or crest groups: *Gispudwada* (Blackfish or Killerwhale), *Laxsgiik* (Eagle), and *Ganhada* (Raven) (Roth 2008:10). The *Waap* (House) is a group who define their relatives through the mother's line. Gitka'a'ta people do not marry members of the same crest group. Children belong to the clan or crest group of their mother. (A man, for example generally passes his name to his sister's son who is a member of the same clan; just as a woman passes her name to her daughter.) House membership is legitimized in a clan feast, by taking on a name at different stages of life.

As several anthropologists note, in Txałgiw today, the extended nuclear family is the predominant familial unit, "but obligations to the clan are enthusiastically fulfilled. The most important occasions at which the clan work together are the feasts; financial contributions, work, and the giving of a feast name are obligations of members of the appropriate lineages" (Seguin 1993; Roth 2008).

Woman Elder: **"Your position in the clan is very important because they take care of you if you need something. They'll help you. If you have sadness or sickness they're there for you. They're there to help you with your kids, you're not alone."**

House groups are the primary property-owning, political unit among Gitka'a'ata – all members have rights to access and use territories and resources belonging to the House. Women "might hold the privilege of managing certain resources such as berry-picking grounds," and men individually inherit trap lines from their maternal uncle (Seguin 1985:5). "The territories belonging to a local segment of a clan were customarily administered by the chiefs, each of whom inherited control over a specific territory with the chief-name … A chief had the right to permit access to his territory, and to manage resources taken there" (Seguin 1985: 5). House territories included: "halibut and cod beds, sea-weed gathering spots, sections of beach-front for salvage, salmon streams, berry-picking and hunting grounds, bathing places, cremation sites, cemeteries, and the actual place in the village where the house physically stood" (Miller 1997:52).

As Laxsgiik, S'moogyet Sn Axe'et / Eagle Chief Ernie Hill stated:
"I knew my role the day that I was born. Even though I don't remember, my education started then. It didn't really hit me how important it was until I became Chief, I learned then the most important job would be being a steward of the land, the air, the sea, the water and the whole thing."

Emphasizing ownership of sites, his son spoke with us about his father's responsibilities:
"My father [took] me out as a five or six year old to show how committed he was at the time. And my father is a hereditary chief but make sure that you guys understand it's a hereditary chief of the Eagles and his main function is to protect what the Eagles own in our territory. If he doesn't do that he's failing in the eyes of my grandmother, who brought him up. My father was groomed as a baby that's what his job was going to be; we knew that, he knew that."

S'moogyet (the chief) carries the responsibility to feast; he "is the name holder who speaks for the group and is authorized to act ritually *as* the group by virtue of holding its highest name" (Roth 2008: 10). Chiefs had control over "territories and trade routes … water and land routes were [also] owned and defended by the house" (Miller 1997:19). Culturally, Chiefs are "custodians" of their lineage's "economically important property" including food-producing areas. They carry the rights to tell the stories from their adawx and they control house and personal names (Garfield 1966:32). Like other Northwest Coast First Nation societies, Gitka'a'ata place emphasis on forms of tangible and intangible property and on the control of various kinds of wealth as the primary criterion of social prestige (Donald 2003).

S'moogyet were "responsible for relationships with other villages and also with foreign tribes … they also bore responsibility for keeping their group in balance with the supernatural beings who controlled the continuation of food and wealth for their people" (Seguin 1985:6). Through feasting, the respectful consumption of animal foods, and reciprocal activities involved in hosting other clans, chiefs fulfill important obligations that ensure animals and humans remain healthy. These activities are tied to spiritual beliefs about reincarnation and clan continuity in their territories (Seguin 1985:111-133).

Hereditary leadership, marine and terrestrial territories, family groups, animals, plants and supernatural beings co-exist in a system of relationships embedded in Gitka'a'ata culture. Cultural knowledge transmitted to different generations (through feasts, rituals, stories, songs, dances, objects, harvesting and food production activities) ensures these relationships are respected and Gitka'a'ata culture is reproduced. The strength of cultural institutions is integrally related to access to territories.

Adawx (sacred lineage histories), *Dzapk* (Crests), and Tsimshian Names.

Oral traditions, crests and Tsimshian names are the bedrock of symbolic knowledge which supports the continuing relationship Gitka'a'ata people have with their territories. Oral traditions called *adawx* (sacred lineage histories) explain the origins and migrations of important names carried by chiefs and other high-ranked people; these names establish the "historical basis for the rights in territory" (Seguin 1985:14.)

> Adawx are oral records of historical events of *collective* political, social, and economic significance, such as migration, territorial acquisition, natural disaster, epidemic, war, and significant shifts in political and economic power. Adawx also contain *limxooy,* ancient songs expressing loss endured during times of hardship, and give rise to visual images … crests -represented on poles and on ceremonial regalia. While specific to a lineage and passed from generation to generation within the lineage, adawx are *formally acknowledged by the society as a whole* and *collectively represent the authorized history of the nation.* (Marsden 2002:102-103).

Crests are derived from the stories of the *adawk*, they represent gifts and associated rights transferred to an ancestor from a supernatural being. *Adawx* are the sole property of the clan, they detail names belonging to the clan, locations and sites, and they validate the rights to display certain art forms.

Hereditary names are a vital form of property belonging to the clan. They are said to be immortal, for they endure long after the lifespan of any name-holder. As anthropologist

Christopher Roth notes, “Names and not their wearers are the true members of Tsimshian lineages” (Roth 2008: 4). A woman elder explained to us:

“My name is _____. I can wear that throughout my life, but when I die that name goes back. I do not have the right to pass it to anyone because it doesn’t belong to me I wear it while I live, but it goes back.”

Male Elder, Blackfish: **“You don’t just give names to anybody … they’re a member of your clan, or you’d have to adopt [them]. Usually, if you’re well respected or the clan needs your expertise or you’ve done something wonderful for the clan, then they will adopt you and they’ll give you a name.”**

Anthropologist Jay Miller similarly noted: “People are given to the names, not names to people” (Jay Miller 2000). Tsimshian names occupy differential status (so, a chiefly name is said to be “heavier” and carry more privileges than other names in the House). All names are “looked after” ceremonially, that is, people with names are expected to host a feast where they tell the history of the name and uphold its status by feeding guests.

As one Gitka’a’ata woman elder (Raven and Eagle) said, **“Well, that’s our traditional thing to do, hey? To have names for respect.”**

Of the 121 Gitka’a’ata Nation members residing in Txałgiu (Hartley Bay) and Prince Rupert who responded to the survey question: “How important is Tsimshian ceremonial naming to your identity as Gitga’at?” – 89.3% stated it is “very important,” 9.9% stated it is “important,” and 0.8% stated it is “somewhat important.”

Names tie people to their traditional territories. They are owned by the clan or House; they originate in stories about the activities of ancestors which are continually, ritually re-told. “Traditions of name origins might involve the ceremonial and heraldic histories of the houses or encounters with features of the landscape, supernatural or otherwise.” (Roth 2008:38). Some adult names come from naxnox, “which may refer to any spirit or non human intelligence and often refers to invisible spirits that dwell in specific places” (Roth 2008:40; Guédon 1993:139-141). Naxnox names “most often … originated from a hunting territory and were used to denote sole ownership of it” (Miller 1997:91).

Woman elder, Blackfish Clan: “**There’s the names that are given; there’s the names that belong in stories, there’s names that come from stories, and there’s names like [my granddaughter’s] that come from life … There’s a lot of traditional names that have to be taken care of by the Chiefs. New names would be the same way, and I think it makes a**

difference to a person when they have a sense of belonging. Not the white man name that they have, but they have a native name that tells them you're from what clan."

Names "from stories" include those derived from adawx and may be related to historical episodes of war, to natural disasters, cross-nation alliances, and/ or claims to territory. Names "that come from life" are those created by older relatives and cross checked with chiefs to ensure they are not part of the clan's exclusive property. Examples of new names said to include Sm'algyax phrases include: "full moon alone in the sky, no clouds," "how certain animals only have their babies on the rocks," and "steersman in the canoe." Anthropologist Marjorie Halpin noted: "People who had no names were called *wa'ayin* (wa: "never"; ayin: "healed") or Unhealed People" (1993:59).

Carrying a name in Tsimshian communities means temporarily assuming one's place within a continuous history of ancestors who are attached to specific territories and sites and connect a person to a web of relationships with relatives / kin. Traditional territories are the raw stuff of Gitka'a'ata identity.

Among Gitka'a'ata, belonging is also expressed through crests, which originate in the clan lineage histories (adawx) and confirm relationships to lands and to ancestors.

As Gispudwada, S'moogyet 'Wah Moodmx / Blackfish Chief Albert Clifton stated*:*
"Our people, our crests are represented from the animals of the land, all the animals of the land. We've got the bear, beaver and you've got the raven and the eagle, they're from the land. Then you've got the killer whale from the ocean, so our crests represent a lot of earth and ocean's king animals, like the eagle is the king of the land. It's very important for us. In Hartley Bay, people know their crests."

Crest Designs at the Gitka'a'ata First Nation Band Office, *Txałgiw* (Hartley Bay). Artist: Stan Robinson.

Adawx carry specific knowledge about "an encounter between a named ancestor and a naxnox (supernatural being) who gifted the family with something that became a crest" (Jay Miller 1997: 23-24). The adawx are manifest in zoomorphic symbols (crests) "that included architectural details, garments, designs, songs, dances, and dramatic displays" (Miller 1997: 24). Representations of crests often include the following pairs: Gispudwada (Killerwhale and Grizzly Bear), Ganhada (Raven and Frog), and Laxsgiik (Eagle and Beaver); and may include Wolf and other animals or beings. In the stories of the adawx, naxnox (and so, crests) are always linked to specific sites and territories. Adawx contain "practical knowledge about the locations mentioned in the histories and the peculiarities of their resources" which are "only transmitted from leaders to their heirs" (Miller 1997: 52).

Crest figures (Eagle, Killerwhale, Wolf, Raven) at the Cultural Centre, *Txałgiw* .
Artist: Jessel Bolton.

Crests symbolize the clan, the larger family unit for economic and social support among Gitka'a'ata people. Crest designs may only be worn by those who have the right to display them: those who are members of the family lineages represented by the crest. The kinds of material culture (objects) on which crests may appear are usually limited to those associated with feasting or potlatching (Halpin 1993:21). Crests are worn on blankets and hats at feasts and important ceremonial events. Crest designs appear prominently on the walls of tribal buildings at Waaps 'Wah Moodmx (the new Cultural Centre /Feast Hall), and at the Gitka'a'ta Band Council Office in Txałgiw.

The “Spirit Bear,” also known as the Kermode Bear (a white, genetic strain of black bear) is the crest of Chief ‘Wah Moodmx. It appears prominently in Waaps ‘Wah Moodmx, the new Cultural Centre, (see right, artist: Jessel Bolton).

House posts (supporting vertical beams) at the Cultural Centre/Feast Hall represent carved crest figures, and crests appear on the totem poles outside of the Community Centre. At these political and ceremonial sites, crests signify customary sovereignty; they are statements of authority over territories tied to the clans and to powerful names. Carvers harvest Red Cedar, Yellow Cedar and Yew Wood to forge these powerful forms. When asked about the proposed NGP, a Gitka’a’ta carver said:

“I’m a wood-carver, a fisherman, so I’m sure if we did have some kind of accident out here with one of those ships -- one way or the other, it’s going to affect the trees. I carve wood. I know for a fact the bears and wolves help fertilize the trees that are along the rivers by taking fish into the tree line. So, one way or the other it’s going to affect the land. There’s no way they can replace what will be gone.”

Totem Poles at the Community Centre, Txałgiw.

Wearing crests, knowing histories, holding names and belonging to a lineage are at the centre of Tsimshian cultural identity (Roth 2008: 6). All are dependent on the on-going relationship Gitka'a'ata individuals and Houses have to their traditional territories.

Species strongly linked to or associated with crests and /or adawx: **SPIRIT BEAR, BLACK BEAR, GRIZZLYBEAR, WOLF, PACIFIC SILVERWEED, EDIBLE SEAWEED, ORCAS (BLACKFISH), HUMPBACK WHALES, SEABIRDS, HUMMINGBIRDS, FROGS, RAVEN, EAGLE, BEAVER, HALIBUT, SHARK, CANADA GEESE, SNOW GEESE, SWANS, AND SEABIRDS OF MANY TYPES (MERGANSER, LOON, SURF SCOTER), OYSTER CATCHER, GULLS; RED CEDAR, YELLOW CEDAR, YEW WOOD.**

The Cultural Significance of Food

In one way or the other, all talk of culture in everyday life returns to or begins with food. Among the interviews quoted here, most began with open questions about what culture is, an all-consuming discussion that invariably began with mention of food and then wove its way through the larger complex of cultural meanings.

Laxsgiik S'moogyet Sn Axe'et / Eagle Chief Ernie Hill: "**Well the whole thing is so interconnected you know, we say that the language can't exist without the culture and the culture can't exist without the language. But along with the culture goes all our traditions and the food."**

A middle-aged Gitka'a'ata fisher responded to the question "What does culture mean to you?" as follows:

"**Culture. My culture is traditional foods combined with what we do; fishing and native dancing, that's just two things. Fishing and traditional dance – I can't dance – but I've been, for the past 30 years or more, food fishing for halibut, crabs, seaweed- picking, prawn fishing – seafood, you know, shellfish. Like I said, for 30 years or more but my main thing is fishing for halibut to be able to provide for my family; my grandson, my son and his children, my daughters and their children, my uncles and their children, even Elders at that. The first time I get started is in April, like going out food fishing, and depending on what I get I divide it up among the Elders. Like last April there I caught a 140-pound halibut, I lay down beside it and it was 5 or 6 inches longer than me head to tail, and would be this [gesturing] wide. So I just counted our Elders and as I was going through the Elders I started on one end and counted the number of people in each home because that's my livelihood food fishing, and whatnot**."

When a woman, mother of three, member of the Raven clan was asked: "What is culture for you?" she responded with the following:

"The land obviously. That's a given, living off the land. Hunting and fishing, yeah, living off the land. Practising stuff that's been done for traditional years, the legacy of foods being passed down from one generation to another. I didn't unfortunately, grow up here for most of my life. I moved away and came back off and on throughout the years. So I took it for granted, the history around me, the culture, the foods. You hear of it, but you never see it or do it. And then I moved back here when I was 23 and my ex husband's parents are an elderly couple. So I started learning through him, through them, how to process traditional foods and it was awesome to not bum from Elders but to actually do it yourself. It felt good, being a younger generation, to learn all that and so now I pass it on to my children."

Abalone Porphyra /Seaweed Salmon, combined Blueberries Huckleberries Salmonberries Mussels Cancer (dng/redrock) Eulachon Grease Herring Eggs Shrimp species Prawns Cockles Halibut Chitons Salalberries Octopus Clams Black Cod Seal Deer Rock Scallops Eulachon Sea Cucumber Salmon Eggs Yelloweye Moose Grey Cod Green Urchin Crabapple Ling Cod Swimming Scallops Red and Purple Urchin Flounder /Sole Ducks Scoters-Black Ducks Seagull Eggs Trout, Steelhead (Gitka'a'ata Preferred Diet Model, (in order of preference) 2009. Fediuk and Thom, p. 34)

Gitka'a'ata are highly dependent on traditional foods: as the list above shows, they consume (and prefer) a wide variety of available species. [6] Strong expressions of cultural identity were made by Gitka'a'ata; these were linked to "living off the land," and "providing" food for family and community members. These expressions fall within the realm of food sovereignty and food security, which are of increasing interest to First Nations and other indigenous societies (Tebtebba Foundation 2010). Food sovereignty may be described as "the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity…." in its own territory (Campesina 2005:70). At the base of food sovereignty is food security, the ability to have control over access to and dependence on, available local foods. Prior to European contact, Gitka'a'ata were self-sufficient through local harvesting and trade. They have since endured legal constraints on aboriginal access to traditional territories, customary harvesting techniques and technologies, as well as the economic decline in aboriginal commercial fishing (1970's). To some extent, their resilience is dependent on their ability to sustain themselves through the culturally appropriate use of marine and land resources. For many First Nation communities, cultural vitality is linked with accessing traditional territories: harvesting, preparing and distributing customary foods for

[6] In their prioritizing in 2009, they expressed the highest preference for **abalone**, a sensitive, over-harvested, and since 1990, unavailable food. "The whole area around Kiel was "all abalone" – just full of abalone. The old people dried abalone, and strung them on sticks and smoked it inside the house. Johnny gave me a small abalone shell; he said that long ago they used to use abalones of this size as a soother. They'd remove the muscle of the abalone and poke a stick through it, then allow the baby to suck on the abalone" (Nancy Turner, Fieldnotes with Helen Clifton from Kiel, 2002).

these activities are important occasions for knowledge transmission and for nurturing relationships among extended kin.

Male, Eagle: **"I'm going for deer tomorrow. If I can get three, I'll keep one for myself and divide the other ones up for the elders. [They'll each get] a quarter… I have three uncles in [Prince] Rupert and their families … we usually send them salmon or deer. I've got my three brothers and their children. To be honest, I've got about thirty six nieces and nephews, and about thirty nine great nieces and nephews … We used to have four freezers, we'd put enough away because I knew my brothers, they'd want something and we'd end up giving out to them."**

Cultural Importance of Distributing Foods

As much as foods are a fundamentally important element in Gitka'a'ata community relations and practice, they are also important to the wide network of food distribution and trade amongst other First Nations. In Txałgiw (Hartley Bay) traditional foods distribution occurs along lines of kinship but also importantly, in accordance with relationships of respect (age) and perceived need. Everyone interviewed for this work spoke with who is involved in food procurement valued their ability to offer food to those less able to access and prepare it themselves – especially, elders.

Gispudwada, S'moogyet 'Wah Moodmx / Blackfish Chief, Albert Clifton: **"We know what it costs to do these things for the people. When my father used to do it, people used to give him blankets, towels; that was good enough for my father. We supply probably 2/3 of the fish that comes into this community."**

Male Hunter, Eagle: **"We all [went hunting] when we were young. Our parents used to go hunting [for] deer, moose. Our families used to do that, but with the rifle control the government put out, we have less hunters here. _____'s father used to go out to Aristazabal [Island] to get deer for the community because we don't have very many deer here. So we had a lot of deer and we brought them home for our people, it was given out to the community. _____had about fifteen hunters on two boats, doing all the hunting. That's when we were able to share all the stuff we're doing. When you go hunting for ducks, you had enough people that go up there that had shotguns, and you shared what you got. It wasn't just for me, or the taking it wasn't for me, you shared it with all the Elders because that's the main food that we had, was all the wild stuff."**

Woman elder, Eagle: **"The Guardians [Gitga'at Watchmen Network] have been doing it [sharing food]. The Guardians when they go out, they've carried on that tradition. Like they got deer last year and they gave a quarter to everybody, just the Elders. There are still individuals that do that. ____ when he goes [fishing], he shares his red snapper and his black cod [sablefish] with everybody, he's the only reason we got halibut last year because we never got out ourselves. So there are people that do that."**

Woman, mother, Raven: **"You always just expect the elders to do it for you. And then to watch them do it and knowing they're not going to be around forever. You're the next generation … So now I do it. I can't imagine living without it. We went this year to Kiel. Me and my boyfriend caught all our fish. He caught them, I hung them. There was one elder in the community for the first part and a few elders came later ... It usually goes from us to – last April we got our moose, we sectioned it into four. We gave the hind and the front -- we took one and then we gave the other three away. Then the ribs for smoking, we gave to two other elders. So, just one moose we fed five other families besides ourselves, and then what we had we gave to _____, who gave some to his sister and my mother and my grandmother --who I'm sure fed others. So it pays itself forward. It goes forward. So whatever we give, we probably feed, we probably help hundreds a year. When we do the cockles and we smoke it or we steam it whatever, we usually give a lot to my mom."**

Everyone interviewed for this project participated in some kind of informal trade or distribution of traditional foods. Distribution and preparation of foods constitutes important cultural capital; many, in fact, call it a tradition. In the small village of Txałgiw (Hartley Bay), there are 8 smokehouses in operation; people freeze, dry, and jar foods for the winter. While current figures are unavailable, a 2009 Traditional Food Study which consulted 35 households in Hartley Bay found that in 2008: 57% (or 20 households) fished, collected wild berries, and collected seafood; 31% (or 11 households) hunted or set snares for food; 23% (or 8 households) collected plant roots and plant greens; and 11% (or 4 households) planted a garden (Fediuk and Thom 2009:12). Many people cited rising fuel costs, time, and age as barriers to their ability to access traditional foods, but they regularly received food from relatives and friends.

Species especially key to family relations and food distribution networks— the things that are most prized and/or widely distributed, celebrated, etc., draw people back home for annual harvest, preparation and/or distribution: SEAWEED, OULACHENS AND OULACHEN GREASE, DRIED HALIBUT, SALMON OF ALL KINDS, COCKLES, CLAMS, ABALONE (FORMERLY).

The ability to provide and prepare foods is also considered in the gendered expectations of what makes a good man or a good woman. In one example, a woman elder was showing us her bent wood cedar boxes, important property to women, sometimes made by their male relatives but often passed down through the women's line from mother or grandmother to daughter / granddaughter. Bent wood boxes are used to cure cakes of seaweed (*Porphyra abbottiae*), moistened and dried, packed tightly into the container and later broken up with axes into small pieces of edible or re-hydratable cubes or "flakes". Cedar-bark baskets for berries and sea-weed, trays and racks for drying berries and seaweed, and "*woots*" [cedarwood split sticks or poles] for drying fish [halibut and salmon "*wooks*"] are also usually considered women's cultural property.

"That's an old [bent wood box] there [pointing] and then we have a new one that _____ is always supposed to paint but he hasn't done it yet. And they'd have baskets too. When they'd pick the seaweed … [I always heard] "If you're going to marry someone look for a woman with a dark bum" because they carry their berries on their back, you know, and the blueberry juice would drip down and that was a hard-working woman. You don't always want to look for the ones that are just pretty you've got to look for women that can work hard. So they'd carry the seaweed and the water would drip out… They would have made them – the grandmothers… in the wintertime there would always be people weaving. You get your bark in the spring then you dry it and then in the wintertime you work on making your baskets, yeah."

Food procurement is a highly valued skill, which draws on cultural knowledge and specialized practices. For men, the central importance of that skill is demonstrated through feasting when a boy makes his first kill for food.

Male, Eagle: **"My first deer, I brought it in and my father told me, he says: "You're going to butcher that up, and you're going to give it out." The only thing I got out of it was the heart, liver and tripe – which is my favourite parts!"**

Traditional foods are tied to gender values and to rites of passage but they also satisfy material needs as consumable and as trade items for fuel, transportation and store-bought goods. Distribution represents important cultural values of care and support for the elderly and the vulnerable, and it is tied to Gitka'a'ata models of good citizenship. It is a major factor in the socio-economic health of the nation.

Cultural Impacts of ENGP on culturally significant foods, community relations and community resilience

Food security is, of course, tied to the security of traditional territories. Among Gitka'a'ata, concern for this is evidenced in the extended patrols carried out by the Gitga'at Guardian Watchmen Network who protect key cultural / resource sites.

> In a survey consisting of 122 members of the Gitka'a'ata Nation residing in Txałgiu (Hartley Bay) and Prince Rupert, fully 97.5% reported that "Canning, smoking and drying of traditional foods" is "very important" to their "identity as Gitga'at;" another 2.5 % reported it as "important."

Woman elder Blackfish: **"I've never thought about not having seaweed or not having any of this seafood that we have. We're rich in food. We were rich, we have been rich, in all the provisions from the sea, and not only the sea but the land. It's just our whole way of life.**

Everything that we gather, whether it's on the land in the sea on the rocks, the whole balance of nature would be affected."

This elder connects potential damage to traditional foods to her "whole way of life." Any oil and condensate spills from the proposed ENGP are expected to influence Gitka'a'ata food security both by exacerbating the costs of transporting external food sources, and through changes in the availability, quality, and productivity of local species and their supporting aquatic and terrestrial habitats. In what follows, this report makes explicit the links between Gitka'a'ata culture and traditional food dependency through: perceptions of cultural citizenship (enhanced by food distribution and trade), cultural institutions (such as feasts), symbolic practices (commemoration, sacred/ reciprocal relationships with food animals), cultural landscapes, and intergenerational knowledge transmission.

In order to assess the cultural impact of ENGP on traditional marine foods a rating schedule for designating culturally significant foods was adopted, based on work developed by Turner (Turner 1988) and applied in multiple cultural settings (Pieroni 2001; Da Silva, Andrade, and De Albuquerque 2006). The cultural impact of harm to critically important foods was then evaluated given different spill possibilities modeled by Bocking et al. (2011).

The cultural significance scale is presented below as Table 1. It addresses the relative importance of marine foods and species only (a subsequent table summarizes the cultural significance of nearshore species potentially affected by ENGP). Each food was evaluated using two dimensions: the importance of a species for food or other culturally important uses (e.g., the cedar to produce carving poles) and the exclusivity of that species for the cultural purpose at hand (e.g, they are highly preferred, desired or necessary for a particular cultural use or practice). Scale development of this kind is widely used and well substantiated by judgment and decision-making scholars who develop measures for attributes when a natural or proxy scale does not exist (Keeney and Gregory 2005).

Foods rated critically important were those most widely shared or distributed amongst kinship networks in and beyond the Hartley Bay (e.g., Prince Rupert), and those that are central to the seasonal coming together and/or return of community members in Hartley Bay to conduct the work of harvesting, processing, drying, smoking and freezing foods. The total list of species important to the Gitka'a'ata appears at the end of this report as Appendix B; this is based on the work of Turner and Thompson (2006) and Fediuk and Thom (2009, Table 16).

The 6-point relative importance scale for cultural significance is based on use and exclusivity as outlined below. The rankings for cultural impact listed in Table 2 follow. They are a combination of the degree of harm that would be incurred from small, medium, and large oil or condensate spills and the implications of these for the most critically important foods (row 1 in Table 1). For example, if a small, medium or large spill impacts 50% or greater of the habitat of a critically important species from the Gitka'a'ata cultural point of view, the cultural impact was judged "severe" because that species is so crucial to the Gitga'at way of life as concerns the relation

between food and the community relations already noted. The master table with all ratings for all tables reported here can be found in Appendix C.

FAMILY/COMMUNITY USE: FOOD CONSUMPTION, HARVESTING, SHARING AND DISTRIBUTION

- *Critically important* = foods of key importance to people in or returning to community for food harvesting, processing and/or distribution. Also, preferred 'choice' or superior/important role in food distribution [6 points]

- *Very important* = food of importance (e.g., sought after or acknowledged regularly or frequently) by people in or returning to community for food harvesting, processing and/or distribution. One of several or many possible sources of average exclusivity in food consumption or distribution [4 points]

- *Important* = lesser importance (e.g., acknowledged less often) to people in or returning to community for food harvesting, processing and/or distribution; and/or comparatively lesser exclusivity or preference in food use and distribution [2 points].

CULTURAL IMPACTS GIVEN SPILL EFFECTS TO GITGA'AT FOOD HARVESTING, USE AND DISTRIBUTION

- *Severe* cultural impact (disruption of way of life) = 50% or greater spill-coverage of a critically important [cultural] species, or significant population stock-level effects. In some cases the oil coverage in the event of a spill scenario is much higher that 50% – for example seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%.

- *Moderately high* cultural impact = 30-49% spill coverage

- *Lesser* cultural impact = 20-29%.

- *Minor* = species comparatively protected by the available spill scenarios thus far modeled – may be vulnerable to spills at other locations

- *Unknown* applies to those where the information does not exist at all or at the level of smaller spills viz. population level effects.

All ratings reported in Table 1 for the cultural significance of foods are based on Feduik and Thom, (Table 16, for food significance), and expert judgment provided by Turner and knowledgeable Gitka'a'ata (See list in footnote 2 this report.)

The cultural impacts of spill scenarios reported in Table 2 are based on the evaluations of the report's authors given how fully a species reflects the ability for Gitga'at way of life to persist as a function of use, harvest, distribution and knowledge (covered more explicitly below).

In general, the severity of cultural impacts (on the Gitga'at way of life) were evaluated given spill scenarios as one of two kinds; those which profoundly restrict or eliminate the ability to 'go out' (as the Gitga'at say) on the land or water and those that seriously affect bringing people together and back to Hartley Bay seasonally. Thus, highest order impacts, referred to as "devastating at the individual species or site level" and "irreparable" at the cumulative level, are those for which the species is linked to a cultural practice that depends on "going out and harvesting." Those practices comparatively less dependent on this (e.g., aspects of cultural landscapes or trade), are instead evaluated as "severe". However, in the case of cultural landscapes, the continuity of that cultural knowledge is questionable without people going out and harvesting or being out in the territory.

By this logic, highest order cultural impacts are those directly affecting food-family relations and knowledge transmission as it occurs at the harvesting sites themselves where so much is taught and learned; and those that would affect feasting, which would be so severely damaged a cultural institution without traditional foods that its existence, as noted previously by one Gitka'a'ata interviewee, would be "simply unimaginable."

Table 1: Cultural Significance of marine species to family and community relations/food harvesting, use and distribution

	Fish	Invertebrates	Marine plants	Marine mammals	Birds
Critically Important	Halibut, Grey cod, Eulachon (grease)[7] Rockfish, Salmon Sablefish, Snapper	Abalone[8], Chiton Clam, Cockles, Crab, Mussels, Octopus, Prawns, Rock scallop Sea cucumber Shrimp	Edible seaweed Herring eggs (bull kelp)	Harbour seal	
Very Important	Flounder Ling cod Steelhead or rainbow trout	Swimming scallop Red and purple urchin Green urchin			Goldeneye Mallard Seagull Scoter
Important	Kelp cod Hake Cutthroat trout				Harlequin duck Canada Goose Snow Goose Oystercatcher

Table 1: Cultural Significance of marine species to family and community relations, harvesting, consumption and distribution: *As per the above scale, critically important ratings were assigned to foods that are widely eaten, high use intensity, and of key importance to people in returning to the community for food harvesting, processing or distribution across families, as well as to foods that were particularly exclusive or desirable (e.g., eulachon, which isn't available but is still frequently discussed, invoked and mourned). A very important rating was assigned to foods eaten widely but comparatively less prized or desired, sought or central to the community for aforementioned practices. The Important ranking was assigned to foods for which there is a relatively lower use intensity, lower desirability and on which rests minimal focus viz. harvesting, processing, etc.*

[7] Eulachon runs are currently depressed; eulachon grease is mostly available through trade.

[8] Abalone is considered a critical species whose habitat is closely guarded even though currently unavailable

Table 2: Cultural impacts given spill effects to Gitga'at food use as it impacts family and community relations

	Edible Seaweed, Chiton	Clams, cockles, rockfish, sea cucumber	Halibut	Salmon	Mussel, Abalone	Prawns, shrimp	Crab	Herring eggs (bull kelp)	Sable -fish	Harbour seal
Key sites	Kiel	Clamstown Fin Island	Through-out CCAA	Throughout CCAA	Otter Pass, Hennison Island, Moore Island	Douglas Channel, Kishkosh	Farrant Island, Kishkosh	Variable from year to year	Gribbell Island	Kiel, Kish Kosh, Hartley Bay
Small spill	***Severe cultural impact*** (IRA 6)	***Severe cultural impact*** (IRA 2)	Unknown (populati on)	Unknown (population)	None (far enough out to avoid these spill scenarios)	Unknown (population)	*Moderately high cultural impact*	Unknown (population)	***Severe cultural impact*** (IRA 2)	*Lesser cultural impact*
Medium spill	***Severe cultural impact*** (IRA 6)	***Severe cultural impact*** (IRA 2)	Unknown (populati on)	***Severe cultural impact*** (population)	None (far enough out to avoid these spill scenarios)	Unknown (population)	***Severe cultural impact*** (IRA 2)	**Severe cultural impact** (population)	***Severe cultura l impact*** (IRA 2)	***Severe cultural impact*** (IRA 2)
Large spill	***Severe cultural impact*** (IRA 2 or 6)	***Severe cultural impact*** (IRA 2 or 6)	***Severe cultural impact*** (IRA 2 or 6) Un-known (pop.)	***Severe cultural impact*** (IRA 2 or IRA 6, population)	**Severe cultural impact** (IRA 6)	***Severe cultural impact*** (IRA 6) Unknown (population)	***Severe cultural impact*** (IRA 2 or 6)	***Severe cultural impact*** (population)	***Severe cultura l impact*** (IRA 2 or 6)	***Severe cultural impact*** (IRA 2 or IRA 6)

Table 2: Cultural impact of harm to key marine food species as linked to Gitga'at food use, family and community relations**.** *Severe cultural impact (disruption of way of life) = 50% or greater spill-coverage of key species, or significant population stock-level effects. Moderately high cultural impact = 30-49% spill coverage, and lesser cultural impact = 20-29%. In some cases the oil coverage in the event of a spill scenario is much higher than 50% – for example seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%. Conversely, comparatively protected from these spill scenarios are noted as 'none' in this table and 'unknown' is used for those where the information does not exist as all or at the level of smaller spills viz. population level effects. Species are aggregated in this table by key harvest locations, except for Herring eggs (bull kelp), salmon, halibut, and marine mammals, which occur throughout the region so population/stock level impacts from Bocking et al (2011) are used. All other from Joseph et al. (2011)*

Of the traditional marine foods that the Gitga'at harvest, consume and distribute to family members, 20 of these are judged 'critically important', 10 'very important', and 7 'important'.

To lose a food as important as seaweed, halibut or salmon, or to lose two or more of any of these already critically important foods is a cultural impact of irreparable damage. Such a possibility is highly likely given even a small or medium spill in Gitga'at traditional territory. That is, even a small or medium spill at IRA 2 would have a high likelihood of eliminating for at least several years clam, cockle, sablefish, snapper, rockfish, sea cucumber, crab, spawning herring, and all species of salmon--either by oiling or condensate deposition and making inaccessible the harvesting sites (including Hartley Bay itself), or through contamination and toxicity to the food species populations, leading to harvesting closures. A small or medium spill at IRA 6 would have a high likelihood of eliminating for several years seaweed, chiton, herring spawn, and salmon, again either through oiling of harvest sites (including Kiel, which is of particularly high importance), or through contamination of the food species themselves.

A large spill (on the order of 36,000 m^3 or similar to the Exxon Valdez Oil Spill) at either the IRA 2 or IRA 6 site would lead to oil coverage of both the areas covered by small or medium spills at either site, so the cultural impact would encompass both of the above lists.

Not modeled in the impact assessment or in Bocking (2011) are spill scenarios further north-east up Douglas Channel, which could oil other high-importance sites -- at Old Town and Kishkosh, with resulting impacts on cockle, crab and prawn harvesting there, or a spill scenario further south west, which could have a disproportionate impact on mussel and abalone beds, and on Moore Islands which have also been identified as a particularly valued site.

Put differently, given that the spill scenarios available for cultural impact analysis are only two out of a technically infinite number of scenarios, and since both of them tend to "miss" some areas of high food harvesting (especially Old Town), any suggestion that that these (IRA 2 & 6) are the only possible spill consequences is misleading. There is, for example, a dogleg in Douglas Channel right where Old Town is located, so a spill scenario where steerage or navigation was lost along that part of the route could lead to a spill right on Old Town's doorstep, even though such a possibility is not yet modeled. The Old Town region encompasses two of the key salmon rivers in Gitga'at territory: the Kitkiata and Quaal rivers, the latter with wide tidal marshes extending up the river and into the surrounding sloughs, which are key habitat for waterfowl, bear and other wildlife, and where unique named and "owned" varieties of Pacific crabapple occur, along with many other culturally important resources.

Also telling is the grief people feel about the loss of abalone. A Gitka'a'ata grandmother wrote a book called "What Do Clams Taste Like?". It is about her granddaughter who has never tasted abalone, and about the fears that children have regarding the future, and about never being able to taste these. Abalone, for many, is the "canary in the coal mine".

Cultural Importance of Trading Foods

Gitka'a'ata also often mention the importance of informal trade networks.

"Helen used to get seaweed for her mother-in-law. People used to come down to Kiel and dry all their fish and seaweed, then go directly to Kitimaat to trade for grease and oulachens and other things. This was a long time ago" (Turner Fieldnotes 2001:1)

Woman elder, Blackfish: **"One of our biggest trade items that we're recognized for is our seaweed … Right now we've been talking about our brothers and sisters up in Kemano that haven't had the eulachon run there for going on eight years. If it doesn't happen this spring, it will be eight years. So something's happened to that run, and they were our trading people; their grease for our seaweed and dried halibut. So now, we're having to trade with our Nisga'a brothers and sisters for their grease."**

From a Traditional Food Study conducted for the Gitga'at First Nation in 2009, authors Fediuk and Thom write:

"Fresh or frozen traditional foods that were traded included clams, halibut and cod. Value added or prepared goods included smoked cockles, dried or smoked halibut, dried seaweed and dried (woks, t'szell) salmon or smoked salmon. These foods were exchanged for traditional food or other items. Traditional foods received in exchange include oolichan grease, soapberries, shrimp, prawns, octopus, moose meat, jam. Finally, some of [the] traditional foods were exchanged for market foods or goods, including beef, goat, groceries and dry goods. Other items received in exchange included cash, car rides, store food and propane" (Fediuk and Thom 2009:12).

Traditional foods satisfy material needs as consumables and as trade items for fuel, transportation and store-bought goods.

Rating the Cultural Impact of Spill Effects to Important Gitga'at Trade Species

As above for foods linked to family and community relations, also evaluated are the cultural impact of loss of key trade species. The same protocol was followed, albeit in the case of trade species, selection of key trade species was drawn from Fediuk and Thom (2009), Appendix B, informal trade summary. However, in the case of trading, the highest level cultural impact was "moderately high" because trading, in theory at least, is a somewhat substitutable practice wherein its continuance may be less dependent on going out and harvesting or being out in the territory. One could, in theory, still trade with goods acquired elsewhere. That said, it would likely take the loss of only two key trade species to eliminate practice as it's currently known; thus, impacts on trading could be severe in such a case.

CULTURAL IMPACTS GIVEN SPILL EFFECTS ON GITGA'AT TRADING PRACTICES

- *Moderately high* cultural impact (disruption of way of life) = 50% or greater spill-coverage of a critically important [cultural] species, or significant population stock-level effects. In some cases the oil coverage in the event of a spill scenario is much higher that 50% – for example with seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%.

- *Lesser* cultural impact = 30-49% spill coverage

- *Minor* = species comparatively protected only as defined by the available spill scenarios thus far modeled

- *Unknown* applies to those where the information does not exist at all or at the level of smaller spills viz. population level effects.

Table 3: Cultural impacts given spill effects to important Gitga'at trade species

	Edible seaweed	Clams	Cockles	Halibut	Salmon	Ling cod	Sablefish	Snapper
Small spill	*Moderately high cultural impact* (IRA 6)	*Lesser cultural impact* (IRA 2)	*Moderately high cultural impact* (IRA 2)	Unknown (population)	Unknown (population)	*Minor cultural impact* (IRA 6)	*Moderately high cultural impact* (IRA 2)	*Lesser cultural impact* (IRA 2)
Medium spill	*Moderately high cultural impact* (IRA 6)	*Moderately high cultural impact* (IRA 2)	*Moderately high cultural impact* (IRA 2)	Unknown (population)	*Moderately high cultural impact* (population)	*Minor cultural impact* (IRA 6)	*Moderately high cultural impact* (IRA 2)	*Moderately high cultural impact* (IRA 2)
Large spill	*Moderately high cultural impact* (IRA 2 or 6)	*Moderately high cultural impact* (IRA 2)	*Moderately high cultural impact* (IRA 2 or 6)	*Moderately high cultural impact* (IRA 2 or 6)	*Moderately high cultural impact* (IRA 2 or 6, population)	*Moderately high cultural impact* (IRA 2 or 6)	*Moderately high cultural impact* (IRA 2 or 6)	*Moderately high cultural impact* (IRA 2 or 6)
Operations-Interview Comments	Harvesting safety Palatability	Food safety	Food safety					

Table 3: Cultural impact (disruption of way of life) given harm to key trade species harvested in Gitga'at traditional territory*: Moderately high cultural impact = 50% or greater spill-coverage of key trade species, or significant population stock-level effects. Lesser cultural impact= 30-49% spill coverage, and minor cultural impact <29% spill coverage.* [9] *In some cases the oil coverage in the event of a spill scenario is much higher that 50% – for example seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%*

[9] Spill data is according to Table 21 in Gregory et al. (2011b) For clams, cockles, ling cod, sablefish and red snapper, numbers were estimated by overlaying spill scenarios on harvest maps, as the table aggregated these as "bivalves" or "groundfish". Stock levels are anticipated in table 14 of the Bocking et. al 2011. Unknown impacts are identified where population or stock-level effects are unknown in Table 14 of Bocking et al (2011). The latter table list impacts of a spill greater than 5000 m^3, corresponding to the medium or large spill in the former table and used here.

Of the total list of culturally important foods and species, 8 are used in trading for goods and services necessary to Gitga'at. Of these, 3 are vulnerable to either a small spill listed in Table 12 of Gregory et al. (2011b) or a spill size of 5000 m^3 or greater spill modeled by Bocking et al. (2011). Critically important trade goods sought (as noted above), are oolichan grease and soap berries, as assumed by the volume of foods it takes to procure these, but other goods and services are also traded (ibid, Appendix B in Fediuk & Thom).

Feasting

Nowhere are connections between culture and traditional food more evident than in discussions about feasting – a cultural institution that demonstrates well the inter-connected phenomena important to Gitka'a'ata.

Woman elder, Blackfish: **"When we have our feast… They will share their traditional food… The host will say, "This is the salmon that comes from this river in our area, these berries that you're having for dessert, this is the berry picking area this is gathered by…" And throughout that feast they talk about where they've received or where they got that food from. The land base, the sea, or, "This is my favorite fishing [place]"… or…this… Of course, a prayer is given to the Creator, "for all of this that has been provided to us and so I am sharing it with you, enjoy." It's just that feeling of joy and I guess happiness that we have this food."**

The following passage was articulated by a male resident of Hartley Bay in his 40s. He begins with a description of his wife's possession of a name (a form of symbolic or intangible property), but moves from that description to explain "how it's all connected" – how "elevating" her name in a feast demonstrates her "place" within a lineage deeply tied to a traditional territory, where "eons of generations" have feasted in the past-- and how this is connected to seasonal rounds of harvesting. This Gitka'a'ata (Blackfish) man states "We're interconnected with what we harvest; so is the language, so is the culture, all of that is together and if any part of it is disrupted we start losing it."

"My wife along with all of my family has a name, she has a place, she has a crest, she has a clan -- and to make her name stronger, to make her name more prominent, to make her name elevated to the status that it already is, she needs to look after it. I'm going to show you how it's all connected. This spring there was a notion on my part, and her part, she might entertain the thought of feasting this year.

Now, feasting typically to us and in our history, has been in the December month, now that's a pretty hard time to feast if you think about how our people were living here then, you know, they didn't have freezers, it's a pretty hard thing to do.

So we spent a pretty good chunk of time this spring in anticipation of that in harvesting what she was going to present in her feast. We're not going to go out and buy beef, you know, we're not going to, we're going to feed our people what they're used to, and we're going to feed them what we can harvest. And the interconnectedness is the food that we harvest from the land, the simple fact that we are feasting on a territory and in a place that her grandparents, her great-grandparents, eons of generations have feasted and done the exact same thing in carrying on that tradition and culture.

If any of that is disrupted, if we don't have the food to harvest for whatever reason, if we don't have the place to do the feasting in – whether it's the feast hall or a bigger area -- this community, you know – if one little facet of that is broken or disrupted then it starts to fall apart; then our way of language and culture changes. If I was to go and serve Kraft Dinner at a feast that I was having, our younger generation would think that that was normal. And that's where the seeds get planted of non-traditional thinking.

So I hope in that sense, that I bring across what the culture part of it is because I don't know how else to say it. We're interconnected with what we harvest and how we need to look after what's there to harvest; so is the language, so is the culture, all of that is together and if any part of it is disrupted we start losing it."

Feasting, writes anthropologist Christopher Roth, "is envisioned as necessary to the survival of Tsimshian society. It is an act of social reproduction ... the lifeblood of Tsimshian politics …" (Roth 2008: 8). At feasts, chiefs and their crest groups pass on names, "the centre of Tsimshian social life today as in times past" (Ibid: 27). They fulfill responsibilities to other crest groups, mark important rites of passage, and affirm their relationships to their territories through inviting the community to feed on first harvests. Feasts are public legal occasions where crest groups acknowledge grieving, transfer names in the event of a birth, a death or an adoption, puberty for girls and a boy's first kill for food; they display crests, dances, songs and objects derived from their adawx (lineage histories), which confirm their histories on their territories. The collective labour involved in feasting is considerable as one woman elder told us:

"Many people are in two clans. ... It means double the work too. [Women] have to host a table. When you have a feast you have to take the dishes up and set the table and cook the food. When you give a feast it's not you doing all of the work, it's all of your clan. You invite them and ask for their help and ask if they agree with what you're doing. And if they do, you get all of this help because you could never do it all alone."

Woman elder, Blackfish: **"Also if they're going to pass out blankets, everyone would come with blankets or something to give out. So it's never only what you have, you do it with the help of your clan. Then you help them when they do something."**

In a survey consisting of 120 members of the Gitka'a'ata Nation residing in Txałgiu (Hartley Bay) and Prince Rupert, fully 94.2% reported that feasting is "very important" to their "identity as Gitga'at;" another 5.8 % reported it as "important" whereas no-one reported this relationship to be "somewhat important" or "not important".

According to a woman elder of the Blackfish Clan: **"It used to be if you didn't have a name you didn't go to the feast. But now everybody goes and kids go... You didn't go to a feast if you didn't have a name and if you did, you were expected to behave because you could cause shame."**

This woman elder speaks about the important cultural value of shame. In the context of the feast, misbehaviour might include disrespectful inattention and children not sitting still. Children were socialized into observing proper etiquette at feasts; if they did not, they might bring shame to their name and their clan. Breaches of etiquette by name-holders are often dealt with through sponsoring a *gilksyooks* ("wiping away"), a shame feast, or a distribution of food to restore the reputation of the House (Roth 2008:146).

Gispudwada S'moogyet, 'Wah moodmx / Blackfish Chief, Albert Clifton told us about the different occasions or reasons for feasting:

"We have a harvest feast when we harvest deer or seal. We have different feasts for different reasons--to support the hunter, to acknowledge when he supplies food to the crest of the Eagles. I'm Killerwhale [Blackfish], if I hunt food and supply food it's acknowledged by another clan. At the feast you always announce who hunted for what you are serving. If the opposite crest wants you to go hunting [for a feast] it will cost money in blankets or cash. We have a different feast for clams. The first feed of different animals, the first feed of different seafood is always shared with the community. That's how we get to a situation of friendly feasting.

The memorial feast handles the grieving of the family. Then later the stone-moving feast gives the person the right to move a father's or mother's name to another person.

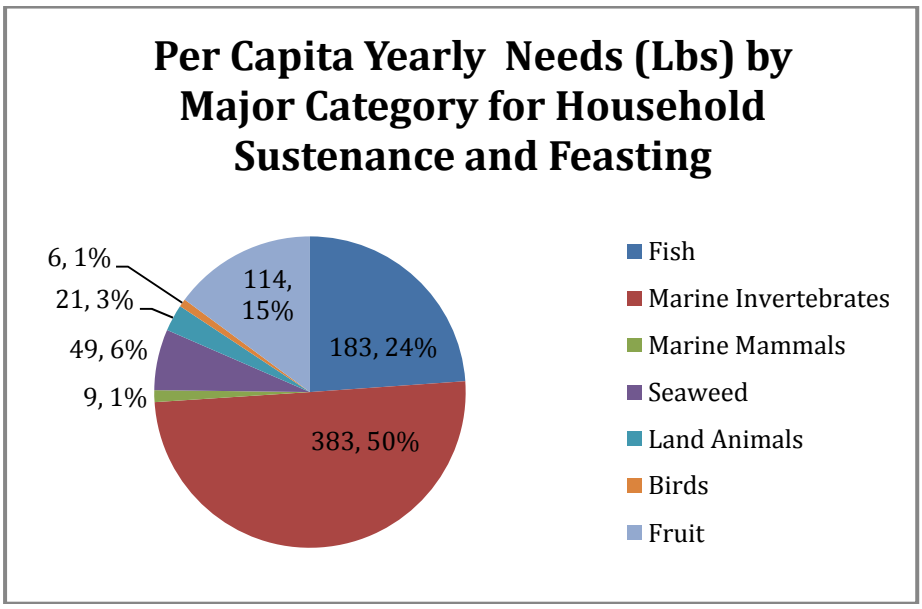
You're never on your own, you always use expertise. When there's a death, we use the expertise of crest people. The chief delegates a spokesman or advisors and I get help from the family to deal with the process – speakers and clan people. It's important to let people know you support them. When you feast you might criticize what somebody is doing wrong – or elected council – you would indicate to them at a

feast you support them and explain to other members of the Gitka'a'ata to support what council is working on. A lot of times you talk about problems in the community – maybe handling rifles too close to the community and safety. The speeches made are always in a protecting role because we don't have bylaws. That's how the community polices itself."

As Chief Albert Clifton states, occasions for feasting include: sharing the first feed of different animals or the first harvest of different seafoods; memorial feasts when someone passes away, the stone-moving feast when that person's Gitka'a'ta / crest name is transferred to another person; and, when chiefs want to correct or address problems in the community. Chiefly feasting includes *luulgit* (contemporary feasts or potlatches where they host members of other crest groups), and *yaawk* (historically, feasts or potlatches where they hosted people from other villages) (Miller 1993:28-29).

Male elder, Eagle: **"Most of the feasts we have are from the ocean, or deer from the land, bear from Old Town and moose from Old Town. So all the animals or fish that are supplied to this community, we use as food for our elders that come in. Because a lot of our elders, they come from Prince Rupert and [the] outside area. When they come here, they're really thankful for eating all the food they won't go buy; they can't afford it. You know, they can't go to the corner market to buy a spring salmon. Here, when you get a spring salmon you got a whole fish and when they see this barbecued fish it's a whole fish. Yeah, and crabs are brought in."**

In a tabulation of "Feast Frequency and Attendance" conducted for the Gitka'a'ta First Nation in 2009, the average total number of large, traditional feasts each year was 3.5. Typically, clan hosts of these feasts feed 260 people; over the course of the year approximately 910 people were served food. The Spring and Winter feasts (for harvests) are held twice per year and 100 people generally attend. Over the course of the year, hosts feed 200. Medium and medium–large feasts are hosted for babies' birthdays (average 5 per year), elders' birthdays (average 5 per year) and by the school (average 3 per year). At the birthday feasts, around 50 people attend, for a total each year of some 500 people served food. One hundred or more people attend the School feasts, with a total each year of 300 people served. Small feasts include clan gatherings (held 3 times/per year) and feasts held on behalf of the school, the medical clinic and the Band Office (up to 12 per year). Attendance at these small feasts is usually around 25 people, with a total of 375 people served food each year (from Fediuk and Thom 2009:24). In Txałgiw each year therefore, approximately 2,285 guests are served traditional (and other) foods at feasts. Collectively, Chiefs, elders, clan members, the clinic, the school and the Band host 33.5 feasts per year. Given recent high numbers of outside visitors to Txałgiw (Hartley Bay) related to the Enbridge proposal, last Fall / Winter there has been approximately one feast per month. The Enbridge CEO himself was treated to one of these dinners when he came to Hartley Bay.



Community Food Needs[10]

Feasting reinforces and confirms identity. According to a woman elder (Blackfish clan):
"Feasting confirms your place or your sense of where you belong within the group. People feast for many different reasons, so one would be to strengthen who you are. You don't tell someone "I am a chief." You say it by what you do; you will know it by what he does and by the way other people perceive him. And if you don't keep doing that - it's like reinforcing who you are. That would be one thing that you would do, why you would feast. He [a chief] feeds everybody else, he shares what he has, he honours other respected people, he works with his clan and they work with him."

People from lineages with high status may be adopted [given a name to bring them into a kin relationship] to carry out feasting duties. Feasting may also be a medium of community reciprocity, as a woman elder of the Blackfish clan stated:
"I've given several feasts – one after I was adopted, it was my obligation to do that. I got adopted by another woman who wanted me to take care of her burial responsibilities. I was close to her and her family and so she adopted me and I did the funeral feast and bought her coffin and those sorts of things ... Another time [for feasting] would be just because you have something to say – you want to thank the people. I lost my sister last April and many of the people helped me get home and gave me money as a way of saying they cared and help me with whatever costs I had. At some point I will invite the people to say thank you for that. So it's sort of, you do something for someone else, they do something for you, but there's always that expectation."

[10] From, Karen Fediuk and Brian Thom 2009 Gitga'at (Food) study, Results Draft, p. 29.

At feasts, when crests are displayed, parts of the *adawx* (sacred lineage histories) are recited by chiefs through their speakers. Other crest groups witness these histories and status changes, they have a role to play in the feast. They may participate in particular dances; they take care of the mortuary rituals and funeral arrangements of corresponding crest groups. "Members of father's clan had special ritual duties to a child, and were paid by the matriclan for those duties at feasts" (Seguin 1993:111). Members of the father's clan for example, present young women with their first gold jewelry when they reach puberty. Because wives / mothers and their children belong to the same crest group, they have obligations to ceremonially acknowledge (by gifting) the husband / father's crest group at feasts. At birth, as one Blackfish woman elder told us:

"It's kind of like a shower but, you invite the father's clan in and you ask for their help in raising their child and you pass out gifts to them and you tell them, you know, this isn't just our responsibility, you have a responsibility… "

Woman elder, Raven and Eagle*:* **"When my sister had a feast then I included myself with her, but I gathered all the dried goods for my kids, hey? Then I dished it out to the Ravens or the Blackfish. Because okay, my boys' father was a Blackfish, so I have to respect the Blackfish."**

Guests at feasts receive gifts (i.e. blankets, cash, store-bought goods) in return for witnessing the cultural transactions at the feast (i.e. transfers of names, wiping away shame, celebrating a first kill). Witnessing crest groups are fed from traditional foods harvested by all lineage members of the host crest group. Generosity demonstrates the abundance of the clan's territories and validates their history of resource use and production. By accepting the foods and the gifts, witnessing crest groups validate the histories and the transactions of the host group.

Disruptions to feasting and thus to naming and renewing cultural identity, may occur if Gitka'a'ata access to territories and resources is impaired or lost through condensate or oil spills.

Feast in Waaps 'Wah Moodmx, Txałgiw. (Courtesy, Nancy Turner.)

Food as a Medium to Commemorate Ancestors

Feasts include important ceremonial expressions like dances and songs, speeches, the display of crests and retellings of parts of the adawx. Feasts are important occasions for celebrating collective memory and adding to the cultural archive of the nation; they include acts of commemoration and grieving but also life-renewing activities like naming, intended to "look after" younger generations. Traditional foods have an important role in feast ceremonies – to feed the dead, to feed the living who are recuperating from a family death, to welcome the people home from a funeral elsewhere.

Woman Elder: *"***Most often lately, feasts are given when someone has passed on and then the way of doing it is very clear. If someone who is Eagle dies, it's usually their father's clan that takes an active role. But the Eagles would host the feast. There's certain duties that people have, and the father's clan speaks first.**

When somebody dies, their belongings are burned to go with them or you pass it through the smoke, if somebody wants to keep it -- because they need their things to take with them. We often do that at a feast. It's quite emotional and you put the food

on a paddle and put it into the fire. There's a fire pit in the [feast hall] and we do that a lot … We just say "feeding our ancestors" or "feeding our loved ones." You usually take a little bit of everything that's been served [at the feast]. You know, some people do that on their own … they'll do it privately in their own smoke houses."

Laxsgiik S'moogyet Sn Axeet / Eagle Chief Ernie Hill:
"We have a pit at the Cultural Centre to feed fire when we have a certain death in the community, where we open that fire for the whole community. It brings back memories to their families, that we used to feed the fires different foods that your father liked or your mother liked, your grandparents liked … It's a very traditional ceremony. What you do is, when you're feeding the fire, it's on a paddle and you put it [the food] on and you turn the paddle. You don't burn the paddle, you know, you just feed the fire with the food. So it brings tears to a lot of people that bring the food. You have to say who it's for. You have to mention you father's name or your grandmother's name."

Woman elder Blackfish: **"We have a spiritual element to a traditional feast when we're eating our traditional foods. We have a fire pit in the cultural centre and then there's a certain time, that first part of that feast is to call upon the ancestors to be with us in spirit… And so then it's time to feed the ancestors. So each family grouping here will take to the fire pit a favorite food of that person that's been long gone. And so they mention when they put the food to the fire, they'll say, "This is for you," and they have to mention the spirit, or they say the spirits fight over that food because they all love their traditional food. But this would be the favorite food of the person that just left or has been gone for years and, "We remember you well and how you enjoyed our food and we still have it and here it is for you to taste." And it's a very poignant moment I guess, within that feast."**

While the report's first two authors were in Txałgiw (Hartley Bay), people were responding to two recent deaths of elders from the community. A woman elder told us:
"Serving of traditional foods, you know there's a funeral tomorrow. And usually after a funeral we call all the people together and have a feast-type thing and they're serving halibut and herring roe … It can be any traditional food. Pretty much every death that's happened here in the last five years maybe, the chief has hosted when the people come back here [from Prince Rupert] just as a way of welcoming them back to home."

Anthropologists interested in cross-cultural ideas surrounding healing state emphatically that spirituality and ceremony are central to the health of First Nation communities. It is important that ceremonial and ritual practices are not pan-aboriginal, but that they are relevant to the communities where they are practiced (Kirmayer and Valaskakis 2009). How does one offer food that one's grandmother or father enjoyed most, when that food source is gone or unavailable? Rituals of "feeding fire" and "looking after the

bereaved," as well as the convention of chiefs welcoming the people back to their territories from a funeral – are inseparably bound with consumption of traditional food. Were the availability of these local foods to be disrupted or prevented due to damage to traditional harvest areas and species, these important forms of commemoration and grieving might be lost, seriously threatening a central ritual expression for grief and healing in the face of multiple losses.

Feasting and Traditional Foods

Feasting is inextricably tied to traditional territories and resources. Among reasons for feasting is the important rite of passage for boys when they make their first kill for food. The ability to provide traditional foods to members of your extended lineage is a highly valued cultural attribute. Even young children, participating in harvesting seaweed, picking berries or bringing a small bucket of *yaanst* (chitons) they have pried off the rock, show visible pride and pleasure in their ability to contribute to their family's and community's food production. They are always encouraged to share this food with elders or other family members.

Woman elder, Raven and Eagle:
"**The first time you shoot a gun and if you get a seal or a deer, it means something big for the family. And you've got to respect that and give a feast and show the people that's his first time to get his food. Yeah."**

Access to territories for feasting is essential, notes Christopher Roth (2008:144). Traditional foods are the crest group's resource base and so, affirming the crest group's relationship to particular sites and harvest areas is "a prerequisite" for effective feasting and "for balanced relationships with other houses." (Ibid: 144) When asked if she could imagine feasting without traditional foods, a woman elder (Blackfish) replied as follows:

"Sometimes somebody will have a feast and it will be a turkey dinner but it's very, very rare and honestly, there is so much work when they do those kind because, you know, how are you going to cook all that? And sometimes they'll make corn beef soup but that's usually because they don't have the availability of the fish or deer. You know somebody will cut up deer meat and make a sort of a soup with that. No, I can't imagine. It's too expensive and it's not the real food."

"Real food" means traditional food; it may also be correlated with the cultural idea of "Real People" – meaning those with high ranked names. "The Tsimshian word for chief [*S'moogyet*], literally means real-person" (Seguin 1993:118). As John Cove explains, "some species are also designated [by Tsimshian people] as real" and these categories are the basis for important reciprocal relations (demonstrated in part through feasting), among species (Cove 1987:75). Addressing the use of non-traditional foods at feasts, anthropologist Christopher Roth draws an example from the Gitskan --another

Tsimshian First Nation: "Non traditional foods are sometimes treated as standing in for the foods of the host's territories. The situation may be different, however, for times and places marked by less disruption of access to the resource base" (Roth 2008:144). Gitga'at territories are such a place.

Several people recite resource histories when they spoke with us about feasting.

Woman elder, Blackfish: **"My husband's great grandmother was a very high [status] woman and every fall she would spend the summer gathering food from Old Town, from Kiel. And every Fall she would give a welcome back to the people, because people had been out to the canneries, they'd been out to Wadhams and River's Inlet, and when they all got back here, she would give a feast. Every year. And always did. Yeah, there's lots of women that would do that."**

Lucille Clifton's Eagle Fall Feast, Menu (circa: 1920's to 1950's)[11]

Half-smoked Coho (*wüüx, t'saal*)
Dried, soaked Humpback (*stmoon*)
Oolachen Grease (*k'awtsi*) and /or Seal Oil
Toasted, Flaked Seaweed (*Iha'ask*)
Inner bark of Hemlock and/ or Amabilis Fir (*ksiiw*)
Strips of Seal Flipper, Singed, Cooked
Seal meat, Venison Stew
Crabapples (*moolks*), Highbush Cranberries (*Ihaaya*) with whipped Oulachen Grease
Blueberries (*wo'oksil*)
Salalberries (*dzawes*)
Other berries, with sugar
Oranges, Apples
Salada Tea
Salmon Egg Caviar, cured and smoked (*uuskm laan*)
Salmon Egg Cheese, served with Grease
Drained turnips, potatoes
Bread, Fried or Baked, with *moolks* Jelly, or thick Blueberry (*smmay*),
or Salalberry Jam

Feast plate 2009: herring eggs on *Macrocystis* kelp; seaweed; halibut; crab, smoked salmon, potato. (Photo courtesy, Nancy Turner).

[11] From: Nancy Turner, Colleen Robinson, Gideon Robinson and Belle Eaton (in press)

People reference certain species when they speak about feasting. As a woman elder, (Eagle) told us:

"We used to harvest skin stick [edible cambium of hemlock or amabilis fir] … There's a certain kind of a knife [called *halháals*], it looks like a boot, hey? And you put your little finger in there and then hold it to scrape the skin off the [inside of the] bark. Then they fry it in eulachon grease and sugar … In the fall they have a feast and they have this. And there is [eulachon] grease mixed with wild crab apples, *moolks* ... And there's blueberries [and] high bush cranberries mixed with the wild crab apples too, with the [whipped] grease. But the blueberries is on a different [separate] side. And the guys used to go out and shoot seal and [we have] all the real dried humpies [humpbacks], the pinks [salmon]. After it's caught, then we really dry them and put them aside. Then that's what they use. They soak it, soak it in water, and then they have it. Or they'd singe the skin. Yeah, and have it with potatoes and grease. Yeah, the Chief's wife will have a feast and that's what she'll prepare for the dinner. Yeah, have smoked fish with seal meat. And seal fat. Instead of drinking the grease, you get the seal fat and have it with the fish."

Ian Eaton taking parcels of seal meat and seal fat to each household at Kiel. Women butchered the meat. (Courtesy, Nancy Turner).

Conversations about feasting often eventually turned to people's concern over the availability of food species in light of the Enbridge proposal and the possibility of heavy oil tanker traffic through harvesting areas. Seal, for example is an animal food served by chiefs and their wives.

Male, Band Council member: **"When I was here [in Prince Rupert] for the federal representatives meeting at the end of August, we had seal. It was good."**

Male, Blackfish*:* **"Take for example if I have a chief in the Killerwhale [Blackfish] Clan that really feels prominence and happiness in feeding the people at some of the coldest times of the year with seal -- that's an ingrained traditional aspect of his thinking and he obviously was taught that. These things [oil tankers] come through. Do you think the seals will be hanging around? They're not going to be here, no. No one's done a seal impact study on tanker traffic going by every other day!"**

Besides being a preferred "chiefly food," harbour seals are an alternative meat and source of oil when eulachon oil and deer are unavailable. Cultural knowledge

surrounding their harvest includes important instruction on how to hunt and how to butcher a seal to share the fat and meat.

Swank, seal oil, wooks. (Courtesy of Nancy Turner)

When a middle-aged woman from the Raven Clan was asked how she imagined Gitka'a'ata culture without traditional foods, her reply explicitly addressed the loss of identity.

"It's like losing your identity. It's like wiping out your mind. It would be like taking somebody's brain and wiping out your whole identity. It's like giving somebody amnesia. That's what it would do to our community. It would wipe out everything. It would wipe out our life as we know it. Like I said, going to Kiel, they've been doing that for years! It was an honour for me to be able to – for the elders to teach me, for people to teach me so that I can pass it on to my children and hope they pass it on. And we can sit there for years down the road telling about, "Oh, do you remember when we were that age in Kiel?" Like, I can sit there right now and say, "Oh, I remember being twelve years old in Kiel, climbing a tree and playing hide and go seek and watching them take the fish in and cut it and everything." And I want my thirteen year old now -- in thirty years from now, be able to tell her kids that, or her grandkids that. Yeah, it would be wiping out an identity."

In these quotes, traditional food *is* identity, and its potential loss is associated with the loss of reasons for feasting and for passing on cultural knowledge. Feasting in Hartley Bay has endured through enormous internal *and* imposed change. It survived the 77-

year ban on potlatching and indigenous religious expressions enforced by the Canadian government from 1884 until 1951. Like primary cultural institutions in other First Nation communities (potlatching, sun dances etc.), feasting is at the heart of a sense of continuity and belonging. This is especially relevant in an age of "reconciliation" where First Nations are using their customary institutions to reconstitute their identities. Anthropologist Naomi Adelson defines healing as "a dynamic process of recuperation from an extensive burden of social, cultural, spiritual, political, and economic losses as well as the physical recuperation of bodies and minds" (Adelson 2009:275). As Laurence Kirmeyer states: "The recovery of tradition itself may be healing, both at individual and collective levels" (Kirmeyer 2009: xiii-xiv). Writing about the feasts he studied at Hartley Bay, Jay Miller wrote: "These are feasts of solidarity, of community, of shared experience" (1993:37).

Male elder, Eagle:
"I don't know; if your food sources were decimated, would you have any reason to celebrate [feast]? Would you have the where-with-all to celebrate? Why would you want to?"

Culturally Significant Feast Foods and the Cultural Impact Posed by ENGP

In order to assess the cultural impact of ENGP on cultural practices of feasting, the heretofore described culturally important food list was used (Appendix B in this report); these were then rated in reference to a method based on work developed by Turner (N.J. Turner 1988) and applied in multiple cultural settings (Pieroni 2001; Da Silva, Andrade, and De Albuquerque 2006). The cultural impacts on feasting were then developed given different spill possibilities modeled by Bocking et al. (2011).

The cultural significance scale is presented below as Table 4. Each feast food was evaluated using two dimensions: the degree of use of the food in feasting and the exclusivity of that species for feasting, particularly traditional feasting.

The cultural impacts of spill scenarios are reported in table 5 is based on the evaluations of the report's authors based on how fully Gitga'at feasting would be disrupted by the availability of key feasting foods.

All ratings reported in table 4 and 5 for the cultural significance of feast foods and the cultural impact of ENGP on feasting is based on expert judgment provided by Turner and knowledgeable Gitka'a'ata including Kyle Clifton, Helen Clifton, Chief Albert Clifton, Chief Ernie Hill Jr., Belle Eaton, and others (see list, Footnote 2).

The 6-point relative importance scale for cultural significance of feast foods is based on use and exclusivity as outlined below. The master table with all ratings for all tables reported here can be found in Appendix C.

FEASTING RATING SCALE: USE/INTENSITY X EXCLUSIVITY

Feasting Use/Intensity:

- Critically Important = foods key to multiple feasts and ceremonial practice within traditional feasting, such as naming, looking after your name, commemoration, referencing or displaying adawx/crests, used in dancing, or the witnessing of cultural 'business' conducted at traditional feasts. Preferred or exclusive foods; 'choice' or superior cultural role in feasting or a 'chiefly' food [5-6 points]

- Very important = Medium use intensity; sought after or used in small-medium feasts (clan gathering, baby or elder's birthdays, school or clinic feasts). One of several or many possible sources of average exclusivity [3-4 points]

- Important = Comparatively lower use intensity: used only rarely or casually in feasting-related ceremonial practices. Comparatively lesser exclusivity or preference in feasting [1-2 points]

CULTURAL IMPACTS GIVEN SPILL EFFECTS ON GITGA'AT FEASTING

- *Severe* cultural impact (disruption of way of life) = 50% or greater spill-coverage of a critically important [cultural] species, or significant population stock-level effects. In some cases the oil coverage in the event of a spill scenario is much higher that 50% – for example seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%.

- *Moderately high* cultural impact = 30-49% spill coverage

- *Lesser* cultural impact = 20-29%.

- *Minor* = species comparatively protected only as defined by the available spill scenarios thus far modeled

- *Unknown* applies to those where the information does not exist at all or at the level of smaller spills viz. population level effects.

Table 4: Cultural Significance of marine species key to Gitga'at feasting (including naming, etc.)

	Fish	Invertebrates	Marine plants	Marine mammals	Birds
Critically Important	Eulachon (grease) Halibut Salmon	Abalone[12] Cockles, Crab Prawns	Edible seaweed Herring eggs (Giant kelp)	Harbour seal	
Very Important		Chiton, Clam Mussels, Shrimp Red & purple urchin			Canada Goose Scoter
Important	Grey cod, Flounder, Ling cod, Rockfish, Sablefish, Snapper, Steelhead Cutthroat	Octopus Rock scallop Swimming scallop Sea cucumber Green urchin	Rockweed Eelgrass (herring eggs)	Steller sea lion	Goldeneye Harlequin duck Mallard Snow goose Seagull (eggs) Oystercatcher

Table 4 Cultural Significance of marine species key to Gitga'at feasting: *Cultural significance ratings (see methods section) are based on ethno-biological research provided by Turner et al. (in press) and expert judgments for this purpose provided by Turner and knowledgeable Gitka'a'ata: Kyle Clifton, Helen Clifton, Belle Eaton, Ernie Hill Jr. Critically important ratings were allocated to foods widely used in feasting as a primary dish, or key ingredient, and/or because they are important to traditional feastings where key ceremonial activities such, for example, where oral histories (adawx) are recited, crests displayed, traditional names assigned, etc. Very important ratings were assigned to foods used in smaller feasts, regularly used in traditional feasts but comparatively less essential. Important ratings were assigned to foods used in feasts occasionally but also less crucial to larger or traditional feasts. Eulachon runs are currently depressed; eulachon grease is mostly available through trade.*

[12] *Abalone is considered a critical species, widely discussed and invoked culturally, whose habitat is carefully protected due to stock decline.*

Table 5: Cultural impacts given spill effects to important Gitga'at feasting species

	Edible seaweed	Cockles	Abalone	Prawns	Crab	Herring eggs (bull kelp)	Halibut	Salmon	Harbour seal
Key sites[13]	Kiel	Clamstown, Fin Island	Otter Pass, Hennison Island, Moore Island	Douglas Channel, Kish kosh	Farrant Island, Kish kosh	Variable from year to year	Throughout CCAA	Throughout CCAA	Farrant Island, Clamstown, Tuwarts inlet
Small spill	*Severe cultural impact* (IRA 6)	*Severe cultural impact* (IRA 2) Low (IRA 6)	Minor cultural impact (under IRA 2 & 6 only, not others)	Unknown (population)	*Moderately high cultural impact* (IRA 2)	Unknown (population)	Unknown (population)	Unknown (population)	*Lesser cultural impact* (IRA 2)
Medium spill	*Severe cultural impact* (IRA 6)	*Severe cultural impact* (IRA 2) Low (IRA 6)	Minor cultural impact	Unknown (population)	*Severe cultural impact* (IRA 2)	*Severe cultural impact* (population)	Unknown (population)	*Severe cultural impact* (population)	*Severe cultural impact* (IRA 2) Low (IRA6)
Large spill	*Severe cultural impact* (IRA 2 or 6)	*Severe cultural impact* (IRA 2 or 6)	*Severe cultural impact* (IRA 6)	*Severe cultural impact* (IRA 6) Unknown (population)	*Severe cultural impact* (IRA 2 or 6)	*Severe cultural impact* (population)	*Severe cultural impact* (IRA 2 or 6) Unknown (population)	*Severe cultural impact* (IRA 2 or IRA 6, population)	*Severe cultural impact* (IRA 2 or 6)

Table 5: Cultural impact of harming species key feasting in Gitga'at traditional territory: *Devastating cultural impact (disruption of way of life) = 50% or greater spill-coverage of key species, or significant population stock-level effects. Severe cultural impact = 30-49% spill coverage, and substantial cultural impact = 20-29%. In some cases the oil coverage in the event of a spill scenario is much higher than 50% – for example seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%. %. Species are aggregated in this table by key harvest locations, except for Herring eggs (bull kelp, salmon and halibut which occur throughout the region so population/stock level impacts from Bocking et al. 2011) are used. Baseline data and risk assessments for marine mammals are described as inadequate (Bocking, pp. 79-85); in addition, potential (but inadequately assessed) impacts from vessel noise and collisions may impact these species more than fish, invertebrates or plants.*

[13] This is by no means an exhaustive list of key sites, but only some examples.

Of the traditional foods that are central to Gitga'at feasting and the myriad cultural practices expressed therein (naming, adawx, etc), 10 of these are critically important to feasting, and 7 are very important.

To lose access within Gitka'a'ata traditional territory of feast foods as important as seal, seaweed, halibut or salmon is to bring serious impact to a central institution of Gitka'a'ata cultural life – an institution already once the subject of a ban by the Canadian government through to the 1950s. To lose two or more of any of these already critically important feast foods (as is the case in even a small spill and most certainly a medium level spill) would result in an irreparable cultural impact.

Such a scenario is entirely possible given that two key feast foods (seaweed and cockles) would be badly damaged by even a small spill at IRA 2, and a medium spill in IRA 2 or 6 would have a high likelihood of eliminating all other critically important feast foods from the vicinities.

Sacred / Reciprocal Relationships with Food Animals

Thus far emphasized are the roles that food species have in feasting (as food for the ancestors, for witnessing clans, to elevate a name etc.); what follows are expressions indicating the cultural importance of reciprocity between Gitka'a'ata and their physical and meta-physical worlds. "For most Aboriginal peoples, traditional subsistence activities (e.g., hunting, fishing, trapping) were deeply integrated with spiritual beliefs as well as with family and community relationships…" (Kirmeyer 2009: xiii). In the context of customary Tsimshian beliefs, humans share their cultural and social universe with other natural (and supernatural) beings whom they honour through respectful treatment and acknowledgement.

Land-sea- human relationships are known to Gitka'a'ta through adawx (sacred lineage histories) and other Tsimshian oral traditions passed on by elders. In mythology, "every animal species" had parallel families and societies, and inhabited a parallel village to that of human beings; they had a chief, were socially arranged by clans, and lived in houses like humans (Miller 1997: 52). Throughout traditional Tsimshian narratives, "culture, which one might expect to be uniquely human, was shown to be pan species" (Cove 1987: 65). A strong message in the corpus of traditional stories is that "food animals came to the Tsimshian by the animals' own consent, directed by their chiefs… Actions taken on animal bodies in human villages influenced the animals in their own villages" (Seguin 1985:45) Anthropologist Jay Miller worked in Txałgiw (Hartley Bay) for many years; in 1997, he wrote:

> Because salmon was and is the primary food resource, many houses have histories involve encounters with salmon spirits. Among the best known is that involving a boy who mistreated a piece of salmon, often moldy, even though

> that was the only food available. After he was taken to live with the Salmon people, he learned many of the rules mentioned in the [histories]. While these observances [were] abandoned in the commercial fishery, many of them are still followed at home (Miller 1997:24).

In Txałgiw (Hartley Bay), people identify important cultural beliefs and activities focused on the careful handling of food species during harvest and consumption. Among the conventions often mentioned is: the fisher's prayer called "Wyetswa" [phonetic], and practices surrounding the proper disposal of food animal remains – either into the fire or back into the water.

Gispudwada S'moogyet 'Wah moodmx / Blackfish Chief Albert Clifton:
"We believe that we give what god gives us back to where it came from. When I'm jigging for halibut – *wyetswa* [phonetic]. I say, "This is me, I'm no stranger to the ocean," then you mention what you're after (the species), that it's you and you will only get what you asked for, then you go home right away. Each fisher asks Creator for help to give him fish – each fisher has his own way of asking or praying. My father said, "Make sure you *wyetswa* and be sure to come right back when you catch that fish."

Woman elder, (Blackfish): **"The individual hunter or fisherman will offer a prayer when they catch an animal and they do it in Sm'algyax, to thank the animal for giving it's life so that you can live. Because it's not a case of "we're dominant;" we're at the same level as them, and they are sharing with us. And so we have to be mindful of that, if we're not then we're not going to get any, we won't get it."**

Man (Blackfish): **"Well you know, we were taught we were one and the same as nature. We had to respect ourselves, respect nature, and take only what you need, don't kill needlessly. One of the big concepts that we try to pass onto our kids, because we were -- although we didn't recognize it -- we had practiced conservation forever. They bring the food in at certain times, you burn that food over the same fire you're smoking fish for our elders and to thank the gods for letting you catch that fish."**

Woman elder: **"When you have eulachons, and many people do this, eulachon was known as a saviour fish because … – even though we live by the sea, often you can't get out in the winter time to get anything because it's too bad out – and so many people were starving long ago when the spring came. And you would eat just the broth from the boiled eulachon and then you would put the bones back into the river or the water, the sea, to return them to their home. And people still do that, like, you don't dump things just anywhere, you make sure that you either burn them or put them back in the water, but just the animal parts not garbage with them."**

Woman elder, Blackfish: **"You have to thank that animal for giving itself to you and he [the fisher] always says a prayer. It's not "you get it because you're a human and you can get this." It's because that animal has allowed you to share its purpose with you."**

In Nancy Turner's fieldnotes dated July 22, 2000, she noted:
"Helen [Clifton] talked about some of the resource use, and especially abalone, which was "worth its weight in gold", and was known as a very sensitive shellfish, that one had to treat with tremendous care and respect. People cut the motors on their boats when they approached the abalone beds, and then they got off quietly, and walked around talking to the young abalone, and reassuring them, telling them that they would come for them next year. If abalone aren't treated properly, they will move away. Helen said the divers and commercial harvesters have ruined the abalone, but people still go back to see if the abalone have come back again."

Social rules extend into human relationships with other species. Among Gitka'a'ata people interviewed, a number of taboos were mentioned.

Woman elder: "**I was teasing someone who was going out trolling the other day – "Did you bath?" You have to be clean. You can't fool around with anybody else's wife or woman. Yeah, and you have to be thinking about what you're doing, you have to be in the right mindset, your wife – they don't like having somebody fishing on a boat whose wife is pregnant, because maybe they're distracted from what they're doing…"**

Woman elder (Blackfish): "**And you never make fun of an animal; I've seen it over and over and over again when somebody has made fun of something it comes back to get them and I remember one time they cut a halibut head off and the halibut moved for a long time after and the kids were all standing around and the halibut kind of opened it 's mouth and the kids did this little giggle and my father-in-law stopped, you know, "Don't do that because bad things will happen. You have to be respectful…"**

There's many stories – like a guy, he got a seal and he put the flippers on his own hands and was walking around pretending he was, laughing. And his child was born with all the fingers fused together...

We used to have lots of frogs here, there's not so many frogs now – but they [children] were taking pebbles and putting them in the frogs' mouths and laughing when they couldn't hop. And the older people got word of that and [a woman elder] gathered all of the children in the hall and talked to them about that because after that had happened we had deaths, lots of deaths– and they weren't old people, they were younger people. And you know, "This has to stop, we can't be doing this.""

Red laver seaweed, *lha'ask* (*Porphyra abbottiae*), is valued for its medicinal properties as well as an important food (Turner 2003). It featured in a number of stories, including

one that specifically refers to the origins of its use as medicine (Davis et al. 1995). There are several temporal and habitat taboos (Colding and Folke 2001) associated with seaweed picking. The Gitka'a'ata never pick seaweed in rainy weather; it is too dangerous and the seaweed does not taste good (a temporal taboo). Also, the seaweed is picked only from the rocks above the level of the tide, never while it is floating in the water (a habitat taboo). Another temporal taboo is that, during the time of the seaweed harvest, the Gitka'a'ata never harvest giant mussels (*Mytilus californianus*) or cedar bark for basketry, or it will rain (Port Simpson Curriculum Committee 1983; Helen Clifton, *personal communication*; see also Garibaldi and Turner 2004:11-12)

When a woman elder was asked: "What would you define as important cultural values?" She replied:
"**Well there's a strong belief in bad luck. Like, if you do things that are against the rules or the laws, something will happen. Like you don't ever challenge the weather because it will come back to get you. There's a story about a guy that built a boat house for the protection of his boat and after he was finished he stood beside and he said, "Okay, let's see what you've got South East [wind]." That very night the South East came and smashed that little building. So you don't ever disrespect the weather."**

Perhaps equally telling in the realm of "bad luck," was the grim reminder by many, that since the ENGP Proposal was made public, several in the community have begun to use Poison Root (false hellebore, *Veratrum viride*, *huu~~ł~~ens* in Sm'algyax) -- to protect themselves from malevolent persons, and Devil's "Claw" (or Devil's Club) – used by people to turn around bad luck (or for luck in fishing). Devil's Club [*Oplopanax horridus*] is a traditional medicine used for treating arthritis and it is also used to deodorize fishing nets, and for ritual protection (Turner and Thompson 2006).

Other values revolve around marine conservation and harvesting practices. As a woman in her early 40's told us:

"I was thinking about being a girl and getting the [herring] roe on kelp [giant kelp, *Macrocystis integrifolia*]. That's part of our traditional foods. I was sitting there thinking about how I learned a lot that year and how part of that was when you're harvesting. I did the dishes and all that stuff – and you can't use the bathroom, you can't dump your dishwater out or it will spoil the harvest. I was thinking, can you imagine what an oil spill would do? If this is just us not being allowed to use the washroom? Yeah, dirty dishwater. Can you imagine what oil would do? That would wipe out the whole roe on kelp -- that would just completely be gone. It's hard enough [in] the industry when you don't get it. But can you imagine having it just gone? That was one of the first things that came to mind was how just flushing a toilet would affect your harvest, let alone an oil spill!"

"Undersea forests" of bull kelp (*Nereocystis luetkeana*) protect the shoreline, and this species is used in many ways (Turner and Thompson 2006). Giant kelp (*Macrocystis integrifolia*), is another important habitat macroalga, and as a food is used to collect herring eggs in the spring, and eaten together with these eggs (as in the previous quote). These marine algae, and eelgrass (*Zostera marina*), constitute the "nurseries" of the ocean for larval and young forms of many of the fish and shellfish on which the Gitk'a'ata rely. Without these species and the habitats they provide, important cultural values would be lost.

Species recognized for their pharmacological properties are equally key to ongoing knowledge and practices, particularly amongst the women of Hartley Bay. Several women note common juniper (*Juniperus communis*) – referencing a medicine people made from this plant called "little trees" or "baby trees." "These were sort of like crowberry (*Empetrum nigrum*) or hairmoss (*Polytrichum commune*)… a plant championed as "a real medicine" used to fix a medicine for her nephew's knee (possibly a wound or swelling). Others refer to these for use as a T.B. medicine, which is consistent with records in the Sm'algyax Dictionary (2001:42,304), which lists a "bush for making tea: *laxsa'nax'nox* … [a] small, low bush [that] looks a bit like hemlock, grows on moss in meadows (aka *halaxsa'nax'nox)"*(Turner Fieldnotes 2002:11). Devil's Club for arthritis (as mentioned above) and Pacific Yew are other species of medicinal importance to Gitka'a'ata. Even the seaweed is a well-known remedy, used to treat swellings of the joints, and for digestive problems (Turner and Thompson 2006).

Many people interviewed for this work addressed directly members of the Joint Review Panel, asking members of the panel to imagine the potential loss or damage to knowledge, species and habitats caused by an oil spill. There wish was to convey that, for the Gitka'a'ata, such losses are unimaginable.

Intergenerational Knowledge Transmission

Given the history of language suppression and the prohibitions against cultural expression in the past, First Nations peoples are acutely aware of the importance of maintaining and passing on their cultural knowledge – the knowledge of being Gitga'at. This transmission and acquisition of knowledge occurs at the Hartley Bay school and, importantly, at harvest sites where elders and family members share cultural narratives and younger people learn through observing and doing.

Question to a woman elder (Blackfish): *How would you define poverty here*?

"**Having nobody to provide for you. Having no provider, I guess because it's not just the money. It's the ability to get out there. Anybody can elevate themselves by just being out there -- you could go and help somebody and get your share that way. One of the insults that people have is, "You act like you don't have a grandmother,"**

because your grandmother, your grandparents, teach you all the things you need to know. "You act like you don't have a grandmother," that's a really huge insult. I think that poverty would be somebody that didn't have that."

In a survey consisting of 121 members of the Gitka'a'ata Nation residing in Txałgiu (Hartley Bay) and Prince Rupert, **98.3 %** reported that "Passing Gitga'at way of life along to future generations" is "very important" to their "identity as Gitga'at." 1.7% reported that it was important.

A woman elder of the Raven and Eagle clans spoke about travelling to harvest sites at Old Town (Laxgal'tsap), on Kitkiata Inlet and Kiel with her grandmother:

"We used to paddle up to Old Town in the summer time. We used to paddle up there or we'd go sailing up there in the canoe. Yeah, Granny had a canoe. And she had her own sail that she used for sailing and that's out of sugar sacks, hey? Or flour sacks or whatever. She'd sew them together by hand and she'd put it up. And then, that's where we dry all the fish up there. She'd shoot a bear and clean it. Then we'd all help, you know, cut it up and hang it up to smoke.

But out at the seaweed camp [Kiel], this is another deal, a different thing. Yeah, seaweed camp, I used to go with them to pick seaweed. And you have to be fast to get off the boat and to jump on the boat because of the big waves, hey? Sometimes you'd find a place where it's good to just get off real easy. Sometimes the rocks are like this [gesturing pointed] and you have to put your foot in between and pick the seaweed. And then there's a rock out on the island below the camp there. That's where we used to spread the seaweed for her. The [drying] rocks are supposed to go to the mother's side of the family, not to the man's side … Seaweed and halibut. Drying halibut. It's easier down there because the birds don't get after them."

Belle Eaton's Halibut, Kiel (Photo courtesy of Nancy Turner).

For as long as elders can remember, Gitka'a'ata have travelled with their families to key harvest sites. Elders, middle generations, and children (when able) still travel yearly to these places. While there, many stay for over a month in houses used by previous generations of their relatives. As children, they learned about harvesting, cutting and drying fish and seaweed through watching and listening to their parents and grandparents. Elders pass on songs, knowledge about survival and traditional medicines, and they teach language while at the harvest sites. Time at seaweed camp or at Old Town is especially valued and reported by interviewees as important occasions with their extended families, when they were told traditional stories, and family histories, and when they came to know first-hand, the importance of these sites in their traditional territory.

"I'm proud to be Gitga'at. I was born and raised here. My mother was born up in Old Town [while they were at Winter Camp], her mother was born here. It goes way back. I'm proud to be from here and I'm proud that I've learned our culture from the elders, my grandmother[s] on both sides of my family … When they went to seaweed camp [Kiel], everybody went to seaweed camp. When they went to Old Town, everybody went to Old Town. I enjoyed it. I used to go with my grandmother; I used to watch her do all the traditional foods in Kiel and Old Town… People sang, they used to sing and sit around and tell stories." Woman, clan unknown.

In May, many Gitka'a'ata move to Kiel, to the Spring camp on Princess Royal island, where women harvest and dry edible seaweed for the year's supply. (Today, with increasingly rainy weather in May, they sometimes return to Hartley Bay to dry their seaweed.) Ethno-botanist Nancy Turner notes, "Sometimes they took their first harvest of seaweed, once dried, up Douglas Channel to Kitimaat [where they had relatives] to trade it for oulachen grease and various products from inland regions. They then returned to Kiel to harvest seaweed for their own use" (Nancy Turner et al. in press). Women were the customary harvesters of seaweed while the men fished for halibut (*Hippoglossus stenolepis* Schmidt) and spring salmon (*Oncorhrynchus tshawytscha* Walbaum). Women travel to the seaweed harvest sites along the rocky coastline in the vicinity of Kiel, which is often referred to as "seaweed camp" (historically, they paddled dugout cedar canoes). To this day they use cedarwood trays or bedrock headlands to dry the seaweed squares and cedar bentwood boxes as containers for processing and storing seaweed. Now speedboats or punts are used, and men participate in the harvest or sometimes go out and harvest it for their families on day trips from the main village. First gunnysacks and then nylon onion sacks replaced cedarbark bags and baskets as seaweed containers, and once dried, the seaweed is stored in bent wood boxes or, more recently, in plastic totes with tight-fitting lids (Turner and Clifton 2006, 2009; Turner and Thompson 2006).

Belle Eaton's Chitons, Kiel. (Photo courtesy of Nancy Turner).

June and July is the season for berry-picking, and in the late summer, many Gitka'a'ata

travel to the fall harvest camp at Old Town, their original village site.[14] "When they went back to Old Town, they would take a few stores – sugar, flour, coffee – and eat mostly the foods they harvested from that area. The people fished for salmon, usually humps, or "humpies" (pink salmon first and then coho, hunted deer, Canada geese and other game birds, and picked their winter's supply of late-ripening blueberries, crabapples, and highbush cranberries" (Nancy Turner et al. In press:7). Around mid-October people returned to Txałgiw (Hartley Bay). Their winter shellfish harvesting sites at Clamstown on Fin Island, Crane Bay, K'dis koos (Kishkosh) Inlet, and Old town, are visited frequently for clams and cockles, mussels and chitons. (Kiel also has clam beds.) Often, younger people accompany elders on these trips, and in return for their help and work, receive invaluable experience and instructions in harvesting and general marine survival skills.

Kayla, Tiana, Ashley at Seaweed Camp, Kiel. (Courtesy, Nancy Turner)

Another conscious avenue for the transmission of cultural knowledge is the village

[14] Thimbleberry and Salmonberry shoots are collected in June and July, along with the edible cambium of amabilis fir, and western hemlock. Salalberries, Gray Currants, Alaska Blueberries and Oval-leafed Blueberries, Red Huckleberries and Thimbleberries are picked in the early Summer months. Later, at Old Town and other locations, late-ripening blueberries, crabapples and highbush cranberries, are harvested.

school in Txałgiw (Hartley Bay). School staff work diligently on curriculum and pedagogy to create a cultural program for the students. They teach their language, Sm'algyax, and have ensured Gitka'a'ata children may stay in their home community to be educated until grade 12. Some Gitka'a'ata of previous generations were sent to the notorious Port Alberni Residential School on Vancouver Island and others attended school elsewhere – far away from their home community. Several with whom we spoke, reported experiences of racism and discrimination within the Euro-Canadian system. Loss of language and separation from home territories was especially cited as damaging to their acquisition and transmission of cultural knowledge. At the village school, students learn to dance and drum, they practice the Sm'algyax language, they learn the protocols associated with feasting and food sharing, and their responsibilities to their clans, and many participate in traditional food camps at Kiel, and in the distribution of foods to elders. Grandparents of these children express pride, as these qualities constitute elements of cultural citizenship. Elders work in the school with children in the valued role of traditional teachers. As one teacher told us:

"One of the important things to me, is we want to see the school get more involved in our traditional stuff. I think the young people are doing a great job … and they will become our dancers in the future. Our culture to me is very alive because of what the school is doing. Our young people, by the time they become parents they quit coming to practice -- and they were dancers. And the young men move away, so we don't really have the young people's support compared to the school kids. To me, it's really important that the school is being [supportive] with our culture and with our way of life. Our dancing is a way of entertainment for our people they were always used at different feasts, you know, so it's our way of entertaining ourselves and a lot of parents are really proud of their kids. So it makes a difference."

"[I teach] all these kids how to preserve their own food … So it's important for us to keep this lifestyle going. If we have an oil spill it's going to damage all the wildlife and the fish in the ocean. The ocean and the land is our deep freeze. So it's important for us to get it across to Enbridge where all our food comes from and where we store it. We never used to store our fish in freezer or fridge, they used to salt-brine our fish and we had to un-brine it to eat it…. *We'uou* [sp?] is the hard dried fish that you keep for the winter, so when you are running out of food for the winter you bring out this hard dried fish and you soak it in the water. We say you're bringing life back to that fish. Soak it in the water, soften it up, and then boil it to eat it with eulachon grease. So it's important that somehow we can teach our children the way things used to be. If you take the deep freeze and freezer away from our people they're lost."

Woman Elder, Blackfish: **"[Children] go to the camps, it's part of the school curriculum going out on the lands and the territories, viewing the spirit bear, the whales, our way of life. And [learning] how we have to look after the land, our respect for the animals,**

that's all part of our living. So [if the pipeline is approved] they won't have that anymore."

Gitka'a'ata continuously mentioned harvest sites throughout their interviews – Kiel and Old Town, Kishkosh and Clamstown were especially noted. Harvest sites are places associated with relationships among extended family and among humans and entities in the natural world; they are sites for the inter-generational transmission of knowledge about: other species and places; about survival and food production, and sociality that are at the heart of "being Gitka'a'ata."

Culturally Significant Species for Knowledge Transmission and the Cultural Impact of ENGP

Assessing the cultural impact of ENGP on knowledge transmission necessitates a close look at those species and harvesting sites most immediately potentially impacted by ENGP. Few concerns are of higher order for the Gitga'at than are this: the continuity of knowledge across time. All are well aware how vulnerable this vast base of knowledge is to any period of its 'falling out of use,' and that use and transmission depend entirely on a healthy marine territory. Using the same protocol as above, the cultural significance of key species for knowledge transmission is presented below as Table 6; whereas the cultural impacts to knowledge transmission are presented in Table 7. Together these address the relative importance of species to the continuity of knowledge and the impact of ENGP on this continuity.

Each food was first evaluated as 'highly used' in the transmission of knowledge and/or as critical or exclusive to that knowledge. The rating scales were as follows:

Knowledge Use/Intensity/Exclusivity:

- Critically Important = High intensity; major attention focused on daily and seasonal basis; major effect on daily living including food, materials (for medicines or implements) and transmitting knowledge (knowledge referred to above as skill, such as gathering and use; and adawx-and-other oral traditions and oral histories). Preferred 'choice' or superior cultural role in (knowledge referred to above as skill, such as gathering and use; and adawx and-other oral traditions and oral histories) [5-6pt]

- Very Important = sought after or regularly acknowledged, often affecting daily and/or seasonal living including food, materials (for medicines or implements) and transmitting knowledge referred to above as skill, such as gathering and use; and adawx-and-other oral traditions and oral histories). One of several or many possible sources or average exclusivity in knowledge (knowledge referred to

above as skill, such as gathering and use; and adawx-and-other oral traditions and oral histories) [3-4pt]

- Important = used only rarely or casually, low impact on daily or seasonal living including food, materials (for medicines or implements) and transmitting knowledge referred to above as skill, such as gathering and use; and adawx-and-other oral traditions and oral histories). Lesser exclusivity or preference in transmitting knowledge (knowledge referred to above as skill, such as gathering and use; and adawx-and-other oral traditions and oral histories) [1-2 pt]

The 6-point relative importance scale for cultural significance is based on expert judgment provided by Turner and knowledgeable Gitka'a'ata including Kyle Clifton, and several knowledgeable Gitk'a'ata who have advised them, including Helen Clifton, Chief Ernie Hill Jr., Cam Hill, Marven Robinson, Chief Albert Clifton, Belle Eaton, Colleen Robinson and, indirectly, many others who have shared their knowledge over the years (see Footnote 2 of this report). The ranking for cultural impact listed in table 7 below is a combination of the degree of harm introduced by potential small, medium, and large spills and the implications of these for the species most critically important to knowledge transmission (row 1 in table 6). For example, if a small, medium or large spill impacts 50% or greater of a species critically important to knowledge transfer from the Gitka'a'ata cultural point of view, the cultural impact was judged "devastating" because that species is so crucial to the Gitga'at knowledge as a function of their ability to return seasonally with children, young adults and elders to harvest sites wherein the skills and knowledge necessary for their maintenance and survival are honed and learned. The master table with all ratings for all tables reported here can be found in Appendix C.

Table 6: Cultural Significance of marine species key to Gitga'at knowledge transmission

	Fish (pelagic and ground)	Invertebrates	Marine plants	Marine mammals	Birds
Critically Important	Eulachon (grease Halibut Salmon	Abalone, Chiton, Clams, Cockles, Crab, Mussels, Octopus, Prawns, Shrimp, Red & Purple Urchin	Herring eggs (and giant kelp) Edible seaweed	Harbour porpoise Harbour seal Steller sea lion Fin whale Humpback whale Killer whale	Bald eagle Raven
Very Important	Grey cod, Kelp cod Flounder, Ling Cod Rockfish, Sablefish, Black Cod, Grey Snapper, Red Snapper, Steelhead or Rainbow trout, Cutthroat trout	Rock Scallop Swimming Scallop Green urchin	Giant kelp Short kelp Eelgrass	Dolphin River otter Sea otter Grey whale	Goldeneye Harlequin duck Mallard Canada goose Seagull Oystercatcher Common scoter Scoter
Important	Hake		Iridescent seaweed		Snow goose

Table 6: Cultural Significance of marine species key to Gitga'at knowledge transmission. *Cultural significance ratings (see methods section) are based on ethno-biological research provided by Turner and colleagues (Turner and Thompson 2006, Turner 2005), and expert judgments for this purpose provided by Turner and knowledgeable Gitga'at: Kyle Clifton, Helen Clifton, Belle Eaton, Ernie Hill Jr., Danny Danes). Critically important ratings were allocated to foods prepared at harvest camps, processed for longer term storage through drying, smoking or freezing, and/or foods that play a critical role in knowledge intensive activities, including skills in harvest and use and species that also figure strongly in oral histories/adawx. Very important ratings included species that are harvested in smaller teams, available throughout the year and wherein knowledge is passed down with lesser intensity or concentration and/or where a species is comparatively (only) less critical to overall cultural knowledge. The third highest ranking, important, was allocated to species heretofore assigned to the overall culturally important species list, but were deemed less important for cultural knowledge or comparative skill transmission. Eulachon runs are currently depressed; eulachon grease is mostly available through trade. Abalone is considered a critical species even though currently unavailable due to conservation, stock decline.*

Table 7: Cultural impacts given spill effects to species vital to Gitga'at knowledge transmission

	Edible seaweed, Chiton	Clams, cockles,	Mussel, Abalone	Prawns, shrimp	Crab	Herring eggs and (giant kelp)	Halibut	Salmon	Marine mammals
Key sites	Kiel	Clamstown, Fin Island	Otter Pass, Hennison Island, Moore Is.	Douglas Channel, Kishkosh	Farrant Island, Kishkosh		Throughout CCAA	Throughout CCAA	Throughout CCAA
Small spill	*Severe cultural impact* (IRA 6)	*Severe cultural impact* (IRA 2)	None	Unknown (population)	*Moderately high cultural impact* (IRA 2)	Unknown (population)	Unknown (population)	Unknown (population)	Paucity of information [15]
Medium spill	*Severe cultural impact* (IRA 6)	*Severe cultural impact* (IRA 2)	None	Unknown (population)	*Severe cultural impact* (IRA 2)	*Severe cultural impact* (population)	Unknown (population)	*Severe cultural impact* (population)	Paucity of information[1]
Large spill	*Severe cultural impact* (IRA 2 or 6)	*Severe cultural impact* (IRA 2 or 6)	*Severe cultural impact* (IRA 6)	*Severe cultural impact* (IRA 6);Unknown (population)	*Severe cultural impact* (IRA 2 or 6)	*Severe cultural impact* (population)	*Severe cultural impact* (IRA 2 or 6); Unknown (population)	*Severe cultural impact* (IRA 2 or IRA 6, population)	Paucity of information[1]

Table 7. Cultural impact of harm species key to knowledge transmission in Gitga'at traditional territory*: Severe cultural impact = 50% or greater spill-coverage of key species, or significant population stock-level effects.*[16] *Moderately high cultural impact = 30-49% spill coverage, and lesser cultural impact = 20-29%. In some cases the oil coverage in the event of a spill scenario is much higher that 50% – for example seaweed, wherein spill coverage of all seaweed harvesting sites under a small spill (IRA 6) =63%, medium =74%, large = 98%. Species aggregated in this table by key harvest locations, except for Herring eggs and giant kelp, salmon, halibut, and marine mammals, which occur throughout the region so population/stock level impacts from Bocking et al (2011) are used. In addition, they note potential (but inadequately assessed) impacts from vessel noise and collisions may impact these species more than fish, invertebrates or plants.*

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[15] Bocking et. al 2011 (Dec 6th version), page 79. All other spill data from Gregory et al. (2011b)

[16] Spill data is according to table 21 in Gregory et al. (2011b). For clams, cockles, ling cod, sablefish and red snapper, numbers were estimated by overlaying spill scenarios on harvest maps, as the table aggregated these as "bivalves" or "groundfish". Stock levels are anticipated in table 14 of the Bocking et. al 2011, unknown from Table 14. The latter table list impacts of a spill greater than 5000 m^3, corresponding to the medium or large spill in the former table and used here.

Of the traditional marine foods critically important to knowledge transmission, 7 would be devastated by a small or medium spill. Even a small spill in IRA 2 or 6 would severely harm seaweed and cockles, both profoundly important to the resilience of local knowledge. Youth and young adults, and even children, routinely participate in these harvests, and from their experience and associated instruction, they learn not only about these species alone, but about the care needed to be safe when working along the coast, how to check the weather and water for untoward storms or other events, how to check for and accommodate the tides, and how important cooperative work and sharing are to survival. Seaweed is so important in this regard that the cultural impact of even a few years damage to sites like Kiel and vicinity are irreparable. Similarly, damage at the higher levels of environmental impact modeled in Bocking et al. 2011 is also a cultural impact of irreparable damage.

For marine mammals, little is known, although it is expected that marine mammals are potentially affected by noise and collisions under "routine operations" (Bocking et al. 2011). For herring spawning and the giant kelp on which they deposit their eggs, there isn't a harvest map *per se,* as locations vary. Though one location often used is *Kwe-lts'uu* ("Cornwall inlet") for herring eggs (opens from east side of Whale Channel, about 5 miles south of N tip of Princess Royal Island). The requirement is for people to be out on the water at herring spawning season, checking all the kelp and eelgrass beds and the quiet bays in the territory to observe when and where the herring will spawn. Spawning herring are said to be particularly sensitive to noise and odours, and will move away from areas of this kind of disturbance. Oil spills and even tankers moving through the spawning grounds are potentially highly impacting on herring and herring spawn. Young people learn about this kind of knowledge by participating in the surveys and monitoring of herring and the health of their spawning habitats.

Locally Reported Impacts from Wakes and Routine Tanker Traffic:

The sum total of what Bocking et al (2011) report on wakes appears on page 34 of that report. No significant effects are noted as a consequence of vessel-generated wake wave heights being within the range of naturally-observed waves in the CCAA.
However, project-related marine transportation activities on shoreline erosion, shoreline activities such as clam and seaweed gathering and boating safety are not discussed in the ESA documents reviewed for this project. To do so would first require a reassessment of the wakes potentially generated from the ENGP project vessels.

But locally, a great deal was said about wave activity from large ships on local shores, especially as it affects harvesting and the skills and knowledge so associated:

Male, clan membership unknown.**"Just the movement, like the wake it's going to create is going to move the sand. It's not going to stay the same, and it will eventually erode and wash out pretty much the clam beds, cockle beds, yeah. I don't know about the seaweed and the chitons, they handle mother nature's waves, so they're pretty tough. I don't think we need to**

worry too much about them. It's more about any spills for them."

Woman elder, Blackfish: **"The impact of that wash on our beaches, it's the clams, the cockles, the crabs, those type of things that need the beaches. Living down at the seaweed camp [Kiel] in the spring and summer when the major storms come in, we can see that surf as it hits the beaches and how it cleans the kelp and seaweed off the rocks.**

Gathering, it's like we're crawling over rocks as you're gathering seaweed. So you're gathering as the tide is going out ... you've only got so much time before the tide comes in. As soon as the tide starts coming back in then the surf starts acting up and so you've got to move off the rocks because it could pull you right off the rocks.

They have places around the seaweed camp that they call "the old lady places." It's easier for them [older women] to stand and be sure-footed on the type of rocks that they have there. Sometimes, when a major cruise ship passes by… somebody would be spotting the ship coming and they call … "Move up on the rocks, the surge of the backwash of a cruise ship is coming!" And it could pull you right off the rocks. Just that type of swell could pull you off the rocks. Because we're right off the Pacific, it's a different type of swell and surf that's there."

Unexpected swells (at the time of low tide) and larger-than-normal waves are particularly of concern. In the minds of those who live and harvest in Gitk'a'ata territories, even routine shipping appear deeply threatening to people's safety and their way of life.

Blackfish, woman elder: **"We were picking seaweed one year and we saw a cruise ship, way off in the distance, and people forgot about it. We were all on these little islands sticking out, and we were picking seaweed, but it was water all around us. And all of a sudden this one lady had five sacks of seaweed washed out to sea because the swell came from the cruise ship and washed all of her seaweed all away. I was standing on the rock and the wave came past my waist. But, you know, that was just a cruise ship and it didn't look like it was going very fast …**

Routine and relatively low-level pollution, too, is of great concern, and the threat of more pollutants or noise from the proposed ENG project naturally causes anxiety for this woman elder.

And another year we were there we found these snowball-sized grey blobs, which were oily and it was somebody's, but we didn't know what it was. We were looking at it, it was so odd to find them on the beach there and they were all over. Somebody probably dumped out their bilge or got rid of their dirty oil, but all of that is going to [pause]. Just the wake of these boats going by is going to wash away our shores, our beaches, and it's going to drive, you know, the noise. The little fish that live in the rocks, the eels and things -- just the noise of these things are going to drive them away …"

The pauses and grasping for words in these interviews, indicates just how difficult it is to imagine such loss.

Woman elder, Blackfish: **"Right now we don't have that type of traffic traveling through our coastal waters here, so there's room for all the different types of gear that we use…traps, long line, trawling, gill net, seine net, there is room. But there is no room if you've got tankers going through and the impact, there is no room for our food fishery also the commercial fisherman, there is no room for both.**

If they've got their halibut gear out. You've got a cruise ship that's not going to move out of the way of that gear. When you think of tankers out there…who's got the right of way? They're going to have to put traffic lights up on the whole central coast area -- for all the type of cargo ships planned for this super port of Kitimat!"

Cultural narratives and interconnections among species

Cultural narratives as they are used here and more broadly in the scholarly literature refer to two uses of the term (Nazarea 2006; Cruikshank 1998). The first is for oral narratives which are themselves foundational cultural knowledge, containing cultural truths, as key to Gitk'a'ata understanding of the order and logic of their immediate world. The second refers to the transmission of educational, ecological or traditional cultural knowledge (Atran et al. 2002; D. L. Medin and Atran 2004). Typically, this includes information about important relationships between food species and/or instructive information about the appropriate use of such species, such as the timing of harvest, who can harvest (sometimes distinguished by clan or gender), and to whom obligations are owed in exchange for harvest. One of the best and most frequently cited examples of the links among cultural narratives, knowledge transmission, and culturally important species in the ethnobotanical record is that of the edible seaweed, ***lha'ask***.[17]

"Helen [Clifton] says that down at Kiel on a clear night it looks like you can just reach out and touch the stars. She really loves the seaweed camp. [Her late husband] Johnny was born at Kiel. He grew up helping his mother [Lucille Clifton] and learning about how to survive, about boats, weather, and food gathering" (Turner, Kiel Fieldnotes, 2001: 2).

[17] Materials about edible seaweed, medicinal plants and weather are from Nancy Turner's Kiel Fieldnotes 2001, 2002, and from her published works, as cited.

Colleen Robinson, Gitka'a'ata elder of Hartley Bay, sprays salt water on her edible seaweed before pressing it into a cedar-wood box to "get its flavour." After three days it will be taken out, chopped, and re-dried (from Garibaldi and Turner 2004:11).

"The main seaweed grounds are halfway down the east coast of Campania Island, south and around the outside. You can get the seaweed when it's dried on the rocks, but then you soak it in salt water. You run your hands up through the seaweed and pull it off, a handful at a time, until you have a big bunch – pile it up and then put it into bags … The seaweed will only keep a couple of days without starting to go bad in the gunnysacks – it keeps longer in the plastic sacks. You don't do halibut and seaweed on the same day; it's too tiring. Large halibut you cut off the heads and cut them up to make halibut head soup – very rich. Helen takes these back to some of the elders in Hartley Bay, who crave it" (Turner Fieldnotes, Kiel, 2001: 1).

Several species of seaweed feature in Gitka'a'ata origin stories – explaining both how they came to be, and their cultural importance to Gitka'a'ata (Turner and Turner 2007; Turner and Turner 2008; Turner and Thompson 2006). "These traditional narratives are not simply about the 'one species' but rather its relation to others as expressed, for example, in the narrated relationship between the growth rate, physical and tactile attributes of nettles, or *stedi* (*Urtica dioica*) as these predict when to harvest seaweed … Gitka'a'ata elder Helen Clifton gauges the growth rate of the seaweed and predicts its readiness by watching the stalks of the stinging nettle mature and elongate; as they grow, so do the seaweed fronds" (Garibaldi and Turner 2004:11).

"Elders and others agree that people are not harvesting as much seaweed as they did in the past, and they worry that, without a knowledge of such traditions as seaweed gathering, the

young will be less healthy and more at risk of accidents resulting from environmental hazards" (Garibaldi and Turner 2004:12). The knowledge complex that accompanies seaweed equally addresses the movement and patterns of wind and the ecosystem and dependency-survival practices so associated. The west wind and southwest wind bring storms and bad weather. The north wind is a 'good' wind as is the 'northwest' as these are affiliated with allowing fish and seaweed to dry sufficiently. Understandings of wind and its anticipatory power as a source of knowledge extends also to the predicting of weather, specifically storms – knowledge that can mean the difference between life and death.

Blackfish, woman elder: **"The whales as they're going out to sea. You'll hear the old people say, "Good weather is coming, the whales are going out to the big sea," that means they're going out to the Pacific. So that means the Pacific has calmed down so they're going to find a lot of food there. And so, when the whales come by and they are going by the other way… [then a] storm, whether it's a blue sky over head, there's a storm not too far behind. The Pacific, they call it the "Big Sea," the Pacific is acting up and so they're coming in…they're coming in."**

Gitka'a'ata travel to harvest sites; as children, many were socialized through participating in the transmission of cultural knowledge that occurs at these places (Turner et al. in press). People residing in Prince Rupert often return to Hartley Bay and/or join their families at harvest sites for seasonal food production. The link between cultural narratives, knowledge transmission, and culturally important species is pervasive and indicative of the close link with potential physical loss, as this constitutes, equally, potential cultural impact.

> In a survey consisting of 121 members of the Gitka'a'ata Nation residing in Txałgiu (Hartley Bay) and Prince Rupert, **100 %** reported that "Harvesting Camps (e.g., Kiel, Old Town, and other sites)" are "very important" to their "identity as Gitga'at."

Woman elder, Blackfish: **"Going to camps, your senses become more in tune with the natural world so it's part of our teachings while we're there. There's these type of little tiny little fish [bullheads] within the little pools and you'll see the children trying to catch them, and you'll hear the older people hollering at them to "leave them alone, they have families. If you keep on teasing them then it's going to rain.""**

So there's certain taboos that happen at camp life because you have to tune into the natural world. So in camp life we do have bears and wolves and other things and so children have to be aware of the types of tracks that's around there. So there's a lot of teaching from experience.

It's a great time because we do need young people there, their energy their strength and the children want to learn how to pick the seaweed. This tuning into all the things happening in your natural environment, whether it's the sea, the fishers, everything just goes together somehow there. Your senses are just tuned in; it's a little bit different than living in a city or town. To smell the differences."

Cultural Impacts of Given Spill Effects on Harvest-Knowledge Intensive Sites:

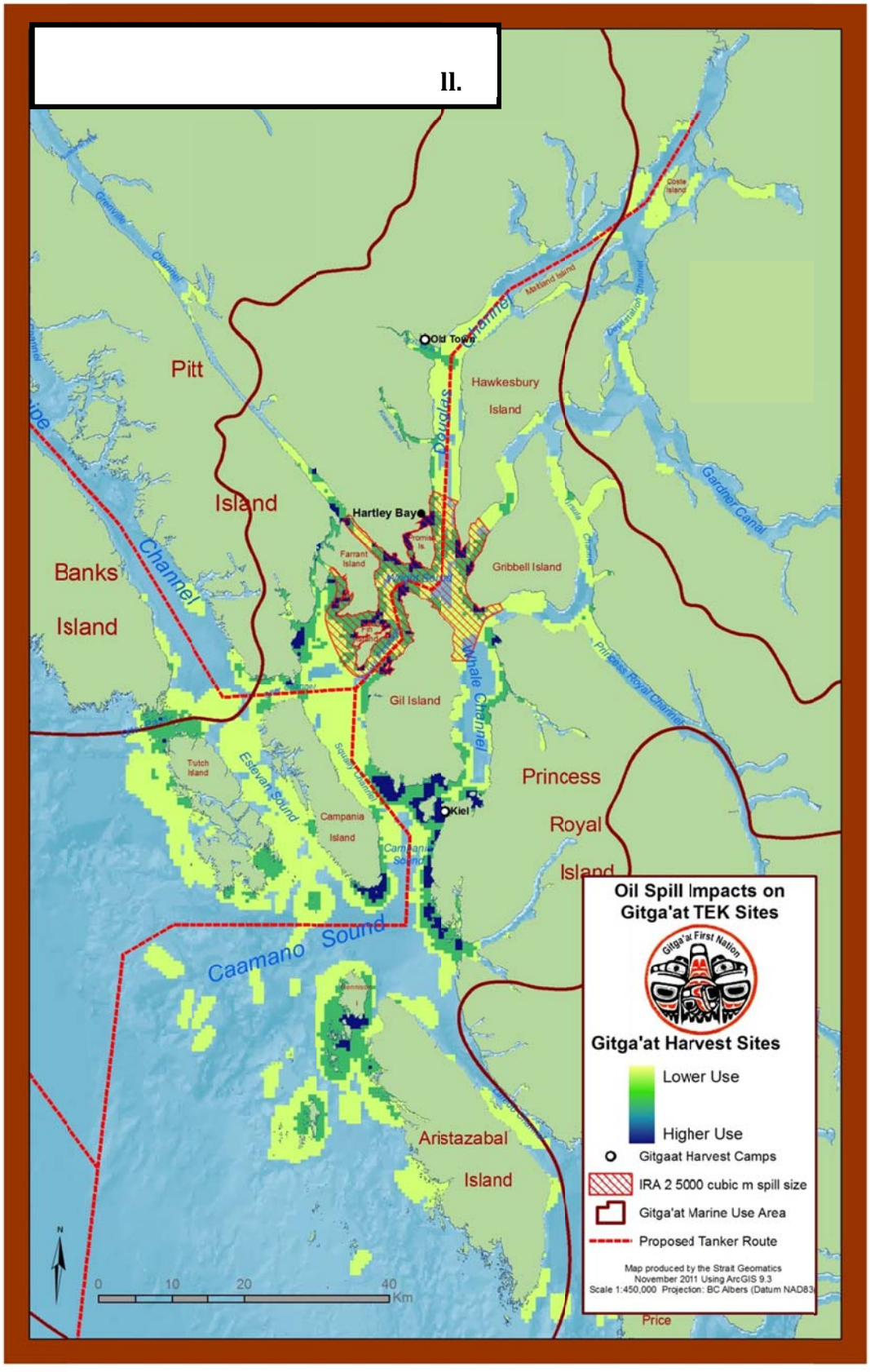
Another way to thinking about spill effects on knowledge transmission is to consider modeled spill scenarios (IRA 2 and IRA 6) as they affect those parts of Gitga'at traditional territory wherein harvesting is most intensively conducted. These include Kiel and Old Town but also many other sites evident on the four maps below. The first two examine small and large spill effects on harvest intensive sites in IRA 2, whereas the third and fourth maps examine small and large effects on IRA 6.

Using Outhet's 'Analysis for Mapping Harvest Intensity and Spill Areas', the objective of the analysis was to display the 'intensity of use' for data collected for the Gitga'at Traditional Ecological Knowledge (TEK) study. To do so it was required to count the overlapping polygons and then classify the output into low, medium and high use areas. A grid was created that covered extent of the study area. Each grid cell was 500m X 500m. Then the entire TEK dataset was spatially joined to the grid dataset where a 'COUNT' field is created that determines the # TEK polygons that fall within a grid cell. Cells that have a count less than one are removed from the dataset. The final data feature is classified using Jenks Natural Breaks classification, which is designed to determine the best arrangement of values into different classes. This is done by seeking to minimize each class's average deviation from the class mean, while maximizing each class's deviation from the means of the other groups. The dataset was classified into three classes and displayed on a low to high scale on the map.

Taking harvest intensity as a proxy for knowledge transmission - in that knowledge and skill are most crucial for areas of abundant use -- then two observations on cultural impact can be made. A small spill in IRA 2 covers between 40 – 50% of the most harvest-intensive areas in Gitga'at traditional territory. A small spill in IRA 6 covers the remaining 40-50% of the most harvest intensive areas. In either area, a large spill covers virtually all of the most harvest-intensive portions of Gitga'at marine territory. In this sense, a large spill constitutes irreparable damage to one of the most crucial, if not the most crucial aspect of Gitga'at continuity. The potential devastation to so many important species and so many aspects of Gitga'at life is almost unthinkable to people, and the mere threat of such devastation causes immense anxiety and stress.

Within the Gitga'at community, a great deal of cultural knowledge remains and in this sense they are well known for the maintenance of their land-based skills and knowledge across time

(Turner et al. in press). Many other First Nations present a cruel reminder of the social burden and suffering that can occur when people's access to their territory is lost or resources are diminished, resulting in the loss of crucial place-based knowledge and practice. What is more difficult to pin down is exactly how long it would take, if at all, for species and habitats to recover from extensive spills and whether the associated suspension of knowledge transmission would ever itself recover. Even a period of 5 years would be potentially devastating, as this is enough to turn away curious younger people, even those with voracious appetites for traditional knowledge (such as the Watchmen sited above). A duration of impacts over a generation – in the 20 years span – would be absolutely irreparable and likely irreversible in terms of associated knowledge transmission. Some instruction on this question is also provided by Bocking's report (2011). The report's work on species-level impacts (pp. 40-43) lists "types" of impact (e.g. "mortality, reduced growth, heart arrhythmia, DNA damage with unknown consequences, destruction of rearing habitat," *and* the effect of duration (time to recovery) (listed as either 1-5 years or 1-20 years). Thus, the range of years discussed here are within the realm of probability.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Caamano Sound
Aristazabal
Island
Oil Spill Impacts on
Gitga'at TEK Sites
Gitga'at First Nation
Gitga'at Harvest Sites
Lower Use
Higher Use
Gitgaat Harvest Camps
IRA 2 5000 cubic m spill size
Gitga'at Marine Use Area
Proposed Tanker Route
Map produced by the Strait Geomatics
November 2011 Using ArcGIS 9.3
Scale 1:450,000 Projection: BC Albers (Datum NAD83)
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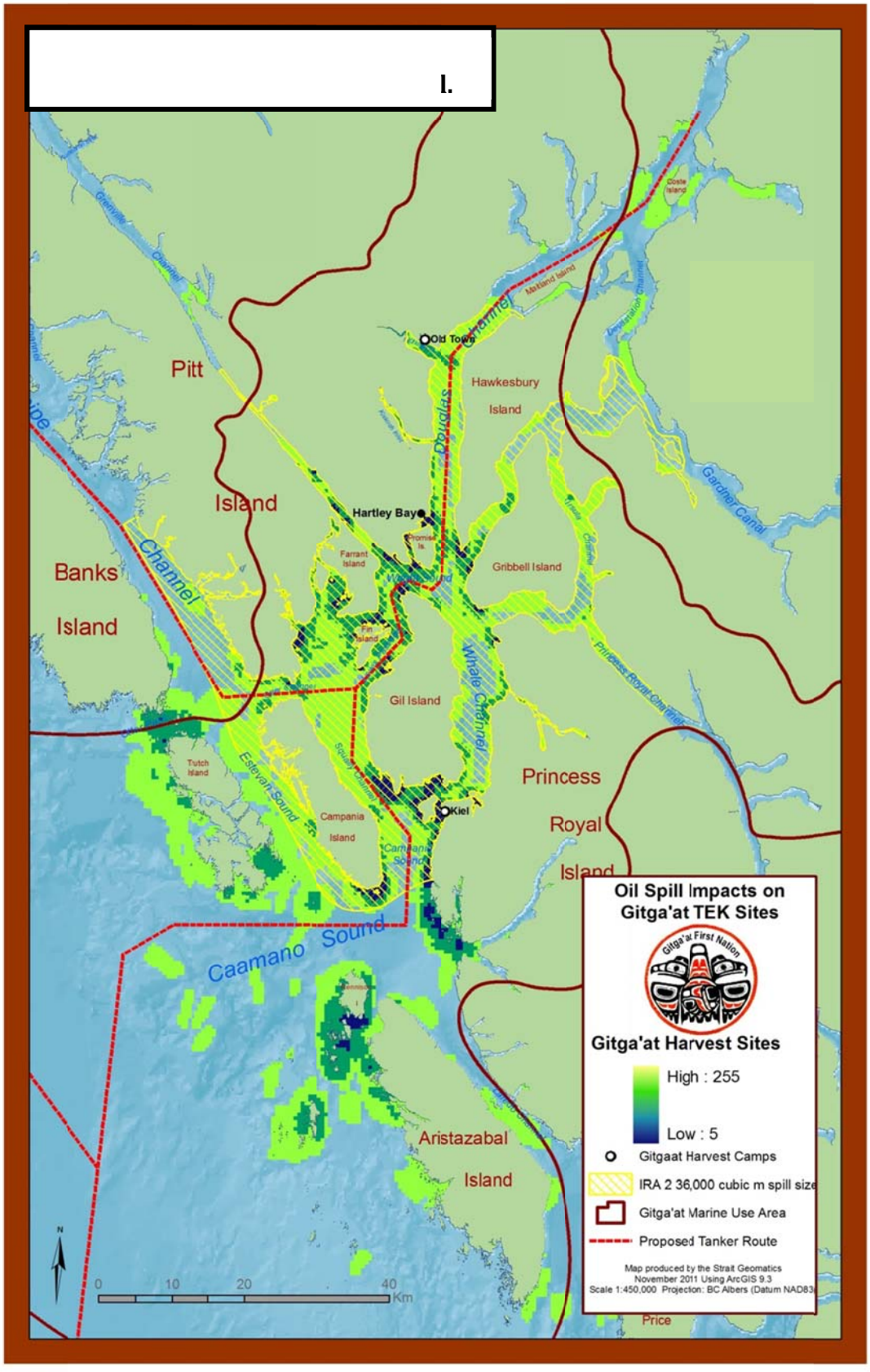
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Gitga'at Harvest Sites
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Gitgaat Harvest Camps
IRA 2 36,000 cubic m spill size
Gitga'at Marine Use Area
Proposed Tanker Route
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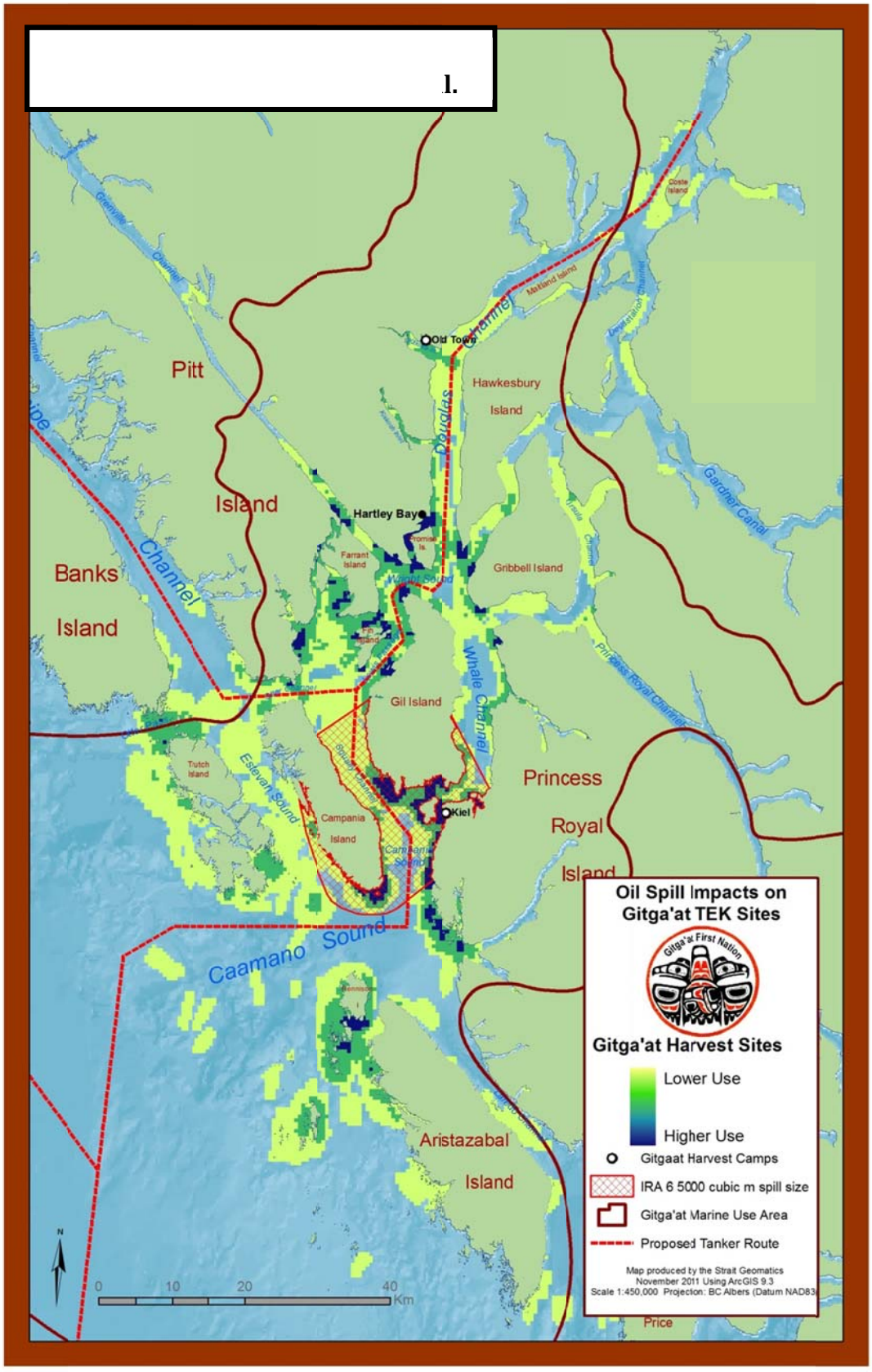
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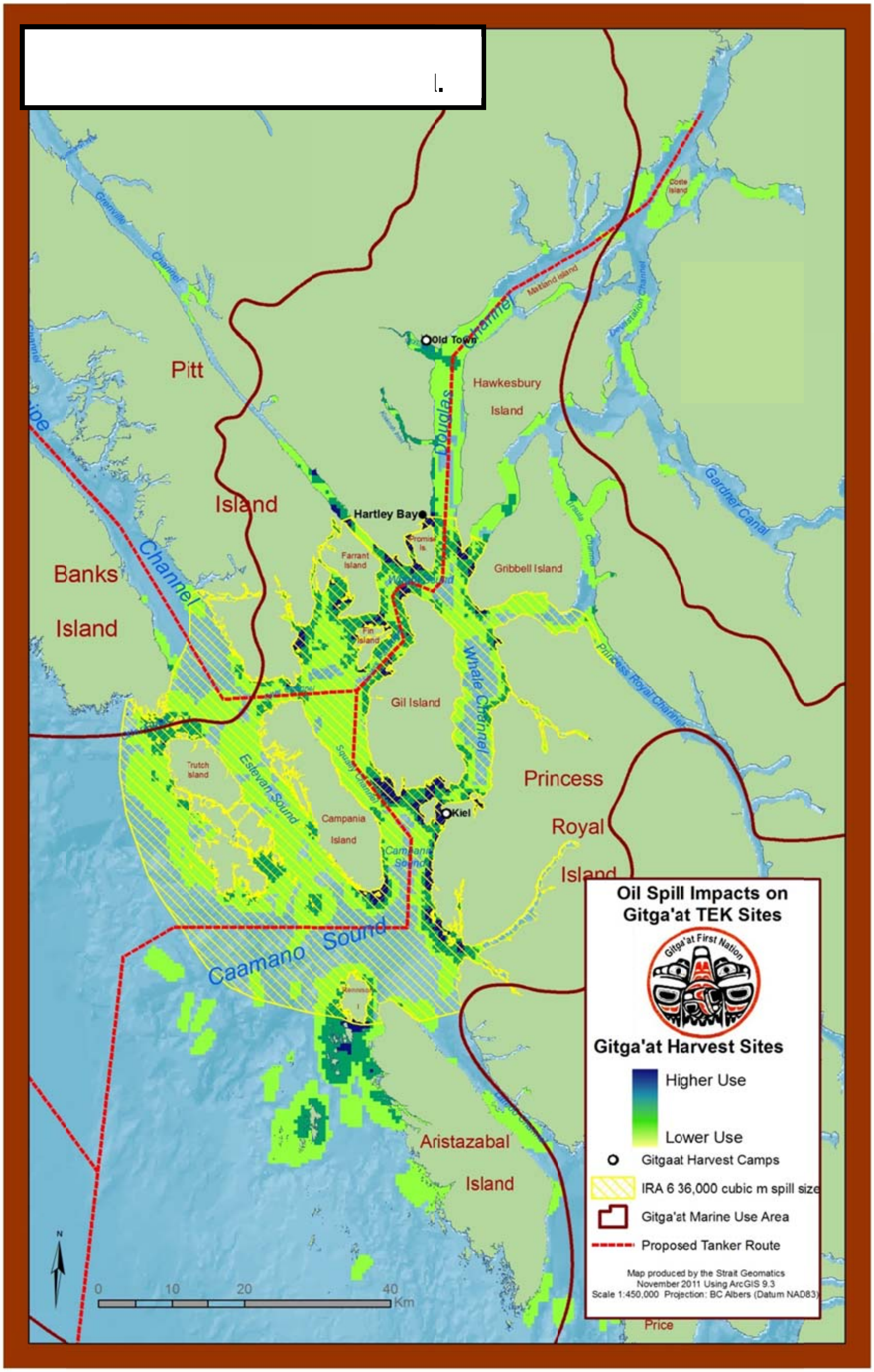
Oil Spill Impacts on
Gitga'at TEK Sites
Gitga'at First Nation
Gitga'at Harvest Sites
Lower Use
Higher Use
Gitgaat Harvest Camps
IRA 6 5000 cubic m spill size
Gitga'at Marine Use Area
Proposed Tanker Route
Map produced by the Strait Geomatics
November 2011 Using ArcGIS 9.3
Scale 1:450,000 Projection: BC Albers (Datum NAD83)
0 10 20 40 Km
Price


Oil Spill Impacts on
Gitga'at TEK Sites
Gitga'at First Nation
Gitga'at Harvest Sites
Higher Use
Lower Use
Gitgaat Harvest Camps
IRA 6 36,000 cubic m spill size
Gitga'at Marine Use Area
Proposed Tanker Route
Map produced by the Strait Geomatics
November 2011 Using ArcGIS 9.3
Scale 1:450,000 Projection: BC Albers (Datum NAD83)
0 10 20 40 Km
N
Pitt
Island
Banks
Island
Channel
Old Town
Hartley Bay
Kiel
Hawkesbury
Island
Douglas
Channel
Gribbell Island
Gil Island
Whale Channel
Princess
Royal
Island
Princess Royal Channel
Gardner Canal
Farrant
Island
Fin
Island
Trutch
Island
Estevan Sound
Squally Channel
Campania
Island
Campania
Sound
Caamano Sound
Aristazabal
Island
Price

Cultural Landscapes: Sites and Place-Names

Critically important to any understanding of First Nations' cultures are the ways in which their immediate sea and landscapes are potently and vitally alive with histories of those people. This is as powerfully true for the Gitka'a'ata as it is for many other First Nations. Further, their resilience and identity as Gitka'a'ata depends on the intersection of land, sea and history – an intersection that is both physically explicit, as in the case of petroglyphs described below, and a combination of the physical and extra-physical way of life wherein Gitka'a'ata narratives and knowledge are intertwined with and maintained by contemporary protection and use of key sites, and repeated visits to these sites.

Understanding the importance of this claim is best grasped by the idea that 'cultural wisdom sits in places' (Basso 1996). The point is that when people [Gitka'a'ata] tell stories about their territory and/or incidents and histories that have occurred there, they often tell them *at* or in reference to the particular site itself from where the story originated. Thus cultural resources in the form of narratives and locations are important; usually but not always expressed as placenames that are simultaneously points on the map – and on the lands and waters -- to which stories and knowledge that matter are attached. By way of example, one class of placenames applies to important resource sites, to the activities which occur there, or the species that appear there: K'tulhoonm K'yel (where the salmon of Kiel appear) at Yugoslav Bay (Steelheads in the Spring); K'xayu'yu or Kxayu'it (place for hiding or caching) at Clark Cove; K'unhlyaanst (place for chitons) just south of Kiel; K'nusaxsgan, Nasaxsan, Nabaaxhl (an older name, meaning to pull cedar bark for mats), at Borde Island, just outside Barnard Cove, north of Kiel.

Placenames matter. As 'on-site' or 'in-situ' information, they convey important cultural knowledge as well as stories about appropriate behavior, about the movement of ancestors, and sometimes important information needed for survival. For all of these reasons, the sea and landscape are, at one and the same time, critical to understanding tangible and intangible property. They are dense sites of defining food sovereignty, and equally powerful places that *resonate* with stories and the messages they convey about 'how to live well' as Gitka'a'ata. Thus, both cultural history and moral wisdom *sits in* or is *attached* to sites that are potent and sentient landscapes (Cruikshank 2005).

In a survey of 122 members of the Gitka'a'ata Nation residing in Txałgiu (Hartley Bay) and Prince Rupert, 85.2 % reported that "knowing Tsimshian placenames" is "very important" to their "identity as Gitga'at;" 14.8% reported it as "important."

Petroglyphs

A good example can be found in discussions about the petroglyphs on numerous rocks along the beach at Old Town. In the following interview exchange (October 2011), the speakers were talking about the meaning of the petroglyphs, which for a period had been badly damaged and many were 'removed' from their appropriate site. These enigmatic visual-historical narratives express the stories of extended families and their ancestors, which are equally histories of migration and accounts of knowledge transmission. These are objects whose existence as 'culturally alive' depends on being in place – in the place where they were originally created.

Blackfish Elder, Female: **"We had a logging company come in here a number of years ago, it was in the '80s; the Provincial government established a logging [operation] right over where the petroglyphs are…. They were charged with having to map all of the petroglyphs as part of their agreement to be in there and say that while they were there they would protect them. This old guy came into the school and yelled at me and said if you think those goddamned rocks are so precious why don't you pick 'em up and move them to your village. He never got it; that the place where they are is a sacred place. It stands for who was there; it just means the whole thing."**

Laxsgiik S'moogyet Snaxeet /Eagle Chief Ernie Hill: "**We've got petroglyphs in a lot of places like Moore Island and there's one at Fog Rocks. It's an indicator where our peoples have been; of [those] who've passed through here. Each rock represents a story of each family that used to be there. It's not a story for the whole population it's a story about individual families that made Old Town their home, or Moore Island -- you know the different places they stopped. It's a history of our people's movement until they told us to go to school in Hartley Bay and they forced us to move here.**

Gispudwada, S'moogyet 'Wah Moodmx / Chief Albert Clifton: **"Each family represents different unions from other communities and it tells a story. That's how all those stories are identified on those rocks. That rock will tell you the history of that family. And the government [referring to colonial prohibitions] took our right to tell those stories … We're afraid the government is going to keep taking our right away to tell the story so a lot of the history about those artifacts are not there, now artists can't explain the carvings to us."**

Blackfish elder, woman: **"When the petroglyphs were returned to the village at a feast last fall; I can't explain it, but when they came into the hall people cried. You know people absolutely cried, you know right down to kids; it was welcoming your own people home. And, and it was really emotional."**

Petroglyphs at Old Town

That the petroglyphs were feasted upon their return to Txałgiw in 2010, acknowledges their potency as symbolic and physical objects, which represent ancestors. Knowledge "sits in places" and it inhabits important forms of cultural property like petroglyphs, which through their presence *at sites* and *in the community,* continue to narrate family histories deemed crucial to cultural continuity.

Power to the Territory: Living oral traditions

The importance of historical narratives as a central medium of knowledge is evidence by the degree of care taken when learning how to narrate these living 'texts'. Such care indicates their significance in oral tradition as well as their quality as essential truths of Gitka'a'ata life.

To speak of the landscape as a kind of text from which people learn, is also reflected in the work of the Coastal Guardian Watchmen – a unified group of stewards of coastal lands and waters present in First Nations' territories. They are responsible for resource stewardship and active participation in decision-making out on the lands and waters (http://coastalguardianwatchmen.ca/). The "Watchman" mission itself is well known, what is less known is that Gitka'a'ata stewards refer to their work directly as "protecting elders stories." Indeed, what they are protecting is the physical territory, which is one with the stories. Consequential actions in the territory are as much a transgression of the land and waters as they are a transgression of cultural knowledge. In the quote below, it is clear that stories and storied sites command attention and maintenance as ongoing, influential locations to which elders and Watchmen travel for the purpose of maintaining cultural resilience. In this sense,

the landscape perpetuates culture, and the people thus must 'perpetuate' the landscape. The active role of elders in the maintenance of these 'storied sites' reflects a fundamental notion of history that is at once physical as well as oral, an ongoing marking of the land with the history of a people, allowing that land and seascape to then 'speak to' and across successive generations. This is why Traditional Ecological Knowledge is often referred to as "situated knowledge" (Nazarea 1999).

Gitka'a'ta Watchman*:* **"I can say the mandate for the Watchmen basically revolves around the elders of every community. And then we listen to their stories, that's basically the main, the gist of the Watchmen is their stories are what we want to protect, and through these stories we find out the concerns -- like old village sites. There's some things that they still don't bring out which is tough. Yeah, they don't want people to know about certain areas, crucial areas I'm guessing…**

"I can honestly say it's the [Guardian] Watchmen network itself that is going to help empower all of these stories and the reason they [elders] are telling us, is because they want us to keep the tradition going and they want us to protect our culture. And yeah, that's the only way I can see is the reason we're getting told all these stories, is because they don't want to see their culture, their people, disappearing. So that's the way I can see it, just to help the fight to keep the community alive.

The cultural sites is where we're going to maintain it for the Elders, make it accessible to them and also any visitors that are going to be within the area. This is where we lay down the rules and say, "Okay you guys can't do this you can't do that.""

Question: Do you take Elders with you?

"We're going to start to, yes. But because this is our first year … We actually walked around and interviewed the Elders and they all agreed they'd want to come on a patrol with us because more stories will come out. Yeah, I grew up on the water and I got tons from my Grandfather, that's why I know all these areas here…

There's a lot I can say. There's a lot of spots where I want to bring Elders. See, we just found two new pictographs that we didn't know about, and when we brought it forth the Elders said, "Yeah, we could have told you it was there." And in our eyes, that's just broadening our power to our territory. Once we bring that forward, we hear more about why it was there.

Power to the territory means -- how did that one Elder say it at that conference? … We have this saying and it's, "Sagiit goolm goot" and it means "all of one heart." He said, "[When the] future comes," he said, "every community here might be their own nation, but in the future coming we're all going to be as one." He said, "We're all going to be of one heart and we're going to take over our lands again."

Liiłga K'yilama / Guarding the Gifts: Loneliness

An additional central quality of Gitka'a'ata cultural landscapes is that the land itself is spiritually animated with the presence of ancestors and these are connected to *spa naxnox (spa* "place") spiritually potent sites associated with *naxnox* (super-natural beings or wonders), whose names are too dangerous to pronounce "as this could lead to an appearance of the *naxnox*" (Seguin 1993:116). "Spanaxnox are therefore literally *homes of spirit beings,* but they are also the spirits indwelling in the topography; that is, they are *spirits, or spirit beings, of place.* The Tsimshian, whose lives are intertwined with the landscape, form intimate and abiding relations with the spanaxnox of their territories" (Marsden 2002:103). Because of their potency, some culturally important sites are not visited very often, although they are identified in the Gitga'at Marine Planning Process as areas that should be protected from other interests. Included here are Turtle Point (where the graveyard is), and Moore Islands.

Cultural land-and-seascapes are imbued with memory. Seasonal harvest rounds are meant to gather food, but they are also moments of recognition and remembering. Women in particular, and the younger generations with whom they travel, enact the work of memory while visiting sites. A central feature of this is often crying and recalling in situ the ancestors that sites invoke – invocations that enliven respect for those from whom one acquired knowledge, but also from whom one can recall for support in "difficult times". Such seemingly ordinary, though grief-intensive expressions, are part of the cultural routine of interaction with one's ancestors and their histories -- that in turn marks the landscape as significant for witnessing family members and younger persons. It is also an important expression of thankfulness for the knowledge learned and for ancestors who are the cornerstone of resilience, of continuing to live well. These ideas are expressed in words of the three speakers below:

Q. When you went with your Granny to Old Town, how long did it take you to paddle up there?

Woman elder, Raven and Eagle: **"About four hours or five hours I guess, I don't know, something like that. Because she used to sing us songs, she'll sing songs, she starts remembering the old times she had with these people. She'd be singing these songs and all of a sudden she'd start crying, you know, real loud and it got us … We started crying with her. "Why are we crying?" this guy, my cousin, says to me. "Because she's crying, I don't know why she's crying." Ha, crazy hey? Then Granny said to us: "Loneliness is why you see me crying. I'm lonesome for my parents," she said. "What we used to do long ago is what we're doing now, it's what you're doing too," she said. That's what she told us. "When you're going through a hard time, you start thinking of your parents," she says, "your grandparents, and you're going [to] cry [too], you watch," she said to me. "That's loneliness, that's why you're thinking of them," she said, "you're lonesome. Only wishing that they were still alive," she said."**

Woman elder, Eagle**: "When we went to Kiel, I had no idea anything about the place and it was sort of exciting because we were going to go to somewhere else. And we landed there**

and there were three old ladies that were going to stay alone and it was _____, _____and ____. And they went up the beach, and I was all excited. They went up the beach crying, and they went into the bush and they stayed there for a long time just crying. I just couldn't understand it. And, you know, it really got to me, they were so thankful they were back in this spot, and the memories of the people [who] weren't coming back -- who were with them last year -- were all there, and it was sort of this place where they were again. So it was sort of a mixture of being thankful and lonesome…"

Woman, Raven, early 40s: **"When I went to Kiel this year, my boyfriend's aunt, when we walked into the house, I didn't realize that was her first time back in years and I hadn't been to Kiel in a least nine years, and there was so many people lost in that short time. And when we went into the house she cried, looking at everything. Her brother had passed in that time period and I didn't know that. She cried. I was talking about it to someone else and they said, "Yeah, a lot of people usually come here and cry." And then I went into our house and I bawled my eyes out because my dad just passed away one year, almost to the day that I got there. That was his house, and he had this thing written up there. And you just sit back and you reminisce about the times there with them, and the things you learned. Oh yeah, my parents loved it there! ... When I talked to someone they said, "Yeah, when people go to Kiel they usually think back to those passed on throughout the years since you've been there.""**

It is not that women talk about the sites and cry, it is that they *go to* the sites and cry.

Mythology in Place

Eagle Male elder: **"Being a completely oral culture, we know how our ancestors made sure that the truth came down through the generations. You know, you tell the story, if you make a mistake you start all over again and then, until it was perfect."**

This man speaks here about the *adawx*, an enormously complex body of narratives memorized, and recited only in segments, on particular ceremonial occasions. Proper recitation of these traditional narratives is especially important; they are told only by those licensed to tell them (See Roth 2008: 27-29). While *adawx* are the "true" histories and exclusive property of lineage members and name-holders, another body of oral tradition called *maalsk* offers entertainment, is known, and may be told by all Tsimshian (Ibid:166). Kinship is deeply tied to the possession of stories and names; different genres of story-telling serve to maintain social memories which reflect changing social dynamics (Seguin & Blumhagen 1994).

Placenames are often richly evocative features of landscapes to which are attached mythological narratives that provide clues about how best to live and conduct oneself in everyday life. This is especially so in a body of stories known as the Raven cycle, shared to some extent by Northwest Coast First Nations. Consider the example below of *Txemsem* the giant (also called '*Wiigyet* or Raven), a major Tsimshian character who is a transformer, culture-hero and trickster (see Boas 1916:58-105; Barbeau 1917:548; Garfield and Wingert 1951:50; Cove and MacDonald 1987). Tricksters are often shape-shifters whose (mis) adventures leave traces

on the landscape – they both create and destroy but their actions demonstrate the repercussions of destructive social behavior especially motivated by greed, and self-interest. *Txemsem* is "a creature of the beach between land and sea, and a creature of the air, between heaven and earth" (Jensen 1980:163). He mediates between supernatural and human realms. "Put simply, the message of the raven myths is the necessity for cultured beings, spirits or men, to observe social conventions" (Ibid:159, 162). It is important to acknowledge that such stories do not always offer up easily interpreted messages; instead, it is through repeated listening and contemplation (in context) that most listeners form their understandings about traditional narratives.

According to the account below, *Txemsem* had the measles. This story is told along with the story of a woman's ability to hide, escape invasion and make her way to a fire that others were trying to put out. It is a narrative told by a grandmother to her grandchildren, and it is itself a journey which offers navigational clues through stories describing the passing shoreline on the way to Old Town. The stories are drawn from remembered history *and* from mythology.

Eagle and Raven, female elder: **"[When travelling to Old Town] she'd tell us stories on those rocks. "See these red spots on the rocks here," she said, "that's that man that left his measles behind. That's where he spread his measles on the rocks. His name was Txemsem. I don't know what his wife's name [was]."**

Then you row up quite a ways, that way, going to Old Town. There's a big rock [that] looks like the shape of a boat there and there's a pot next to it. That was his boat and his pot where he soaks his fish that he's going to eat.

And further up, there's a waterfall, and a ledge underneath the waterfall where you could hide. That's where they used to hide in them days, when there was a war, hey? When the Haida invaded, in them years. The waterfall is up here [gesturing to the map]…

Around there, it's just straight down like this, the mountain. And there was a fire up there, and the guys were running with their buckets trying to put the fire out. They come rolling back down; they couldn't run up to the fire. Only one that made it up to the fire was this lady. It was a lady. She made it up to the fire so they call that place *K'nu Baa*."[18]

K'nu Baa is a site with steep cliffs on the Douglas Channel below Old Town. This name translates as "place where run," and was used in warrior training for running uphill and tumbling down to the water. Nearby is a ledge under a waterfall which references the inter-nation warfare which was common on the Northwest Coast until the early 19thCentury. It is telling that the narrative also involves the measles. On the one hand, Txemsem (sometimes also

[18] Nancy Turner has a very similar record from conversations with Belle Eaton and Colleen and Gideon Robinson a number of years ago. In these conversations there is the suggestion that K'nubaa was a Haida woman.

spelled Txa'msem, Txaamsm, Txamsen, Chemsem) is a mythological character. On the other hand, the misfortune he suffers is comparatively recent, reflecting disease outbreaks in the 19th through to the early 20th century. Around 1850, a devastating measles and influenza epidemic hit the Northwest Coast (Galois and Harris 1994). Mentioning a placename-and-story likely invokes other stories for Tsimshian listeners, and it may be a means of reminding the listener that inappropriate behaviour brings misfortune or disease.

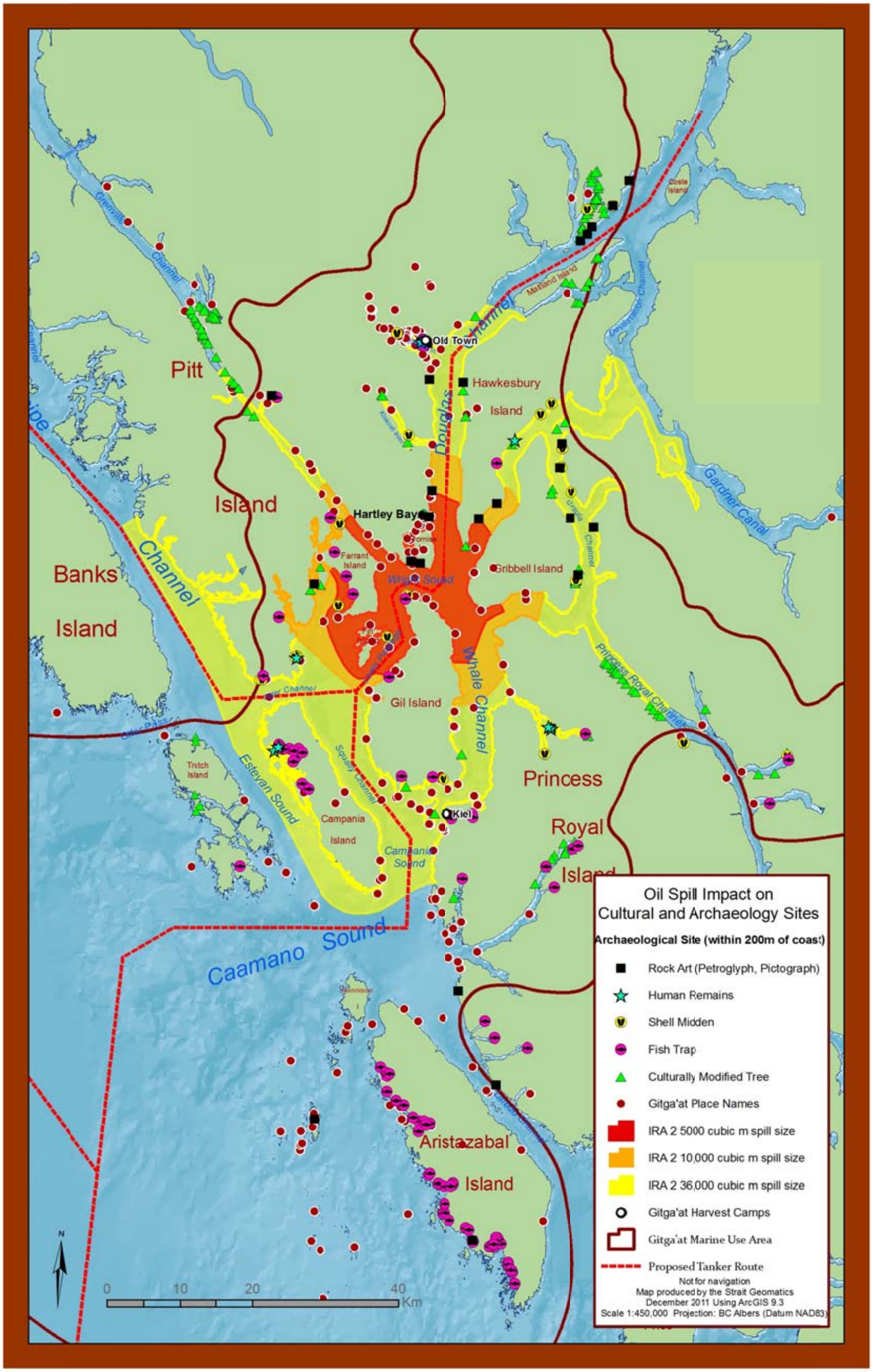
"Stories link human history to place"(Cruikshank 1998:18). They connect knowledge through "understanding the [place]names, knowing the stories associated with names, and living in the world as an adequate human being" (ibid.) A central characteristic of stories is that their meanings and content shifts to address emerging social contexts (such as mass disease mortality in the early colonial period). They [stories] are not petrified objects, but instead are living entities or cultural forms that adapt across time to serve new purposes in the lives of successive generations (Cruikshank 2005). *K'nu Baa* is just one named site on the Douglas Channel which will be passed almost daily by oil tankers should the NGP be approved.

ENGP Potential Impacts on Cultural Landscapes

Placenames are distributed throughout Gitga'at territory and their importance already established (Marsden 2002). Potential cultural impact in this case may, however, only be estimated as the modelling necessary for determining impacts more precisely is not available. In particular, there is little consideration in the proponent's report of the stigmatization and damage of such things as petroglyphs, burial sites, placenames, middens, etcetera. To consider cultural impacts here, the same prior IRA 2 and 6 spill modelling is used, overlaid on placenames and archaeological maps.

As the maps below indicate, along the tanker route proposed by the ENGP project there exist approximately 60 placenames. The highest density areas are around Old Town, Hartley Bay, the southern end of Fin Island, and the area near Kiel. This is understandable as Old Town and its rivers are a key site of Gitka'a'ata history, a focus of many stories, and where there is a "man-made island," dozens of rock carvings (petroglyphs), and remains of ancient plank houses, as well as shell middens and other archaeological features. If oil or condensate, even in small amounts, were to enter this iconic eco-cultural place, it would be a significant cultural impacts at many levels. Were additional models available, especially given the above noted 'dogleg' portion of Douglas Channel near this site, a spill here could be culturally devastating.

Also noted on the maps below are shell middens (debris mounds containing shells, bones, botanica, lithics, tools etc.), mark sites of preexisting villages and houses and / or sites where harvested foods were processed. They are key resources for archaeological research into the history of human land use.


Oil Spill Impact on
Cultural and Archaeology Sites
Archaeological Site (within 200m of coast)
Rock Art (Petroglyph, Pictograph)
Human Remains
Shell Midden
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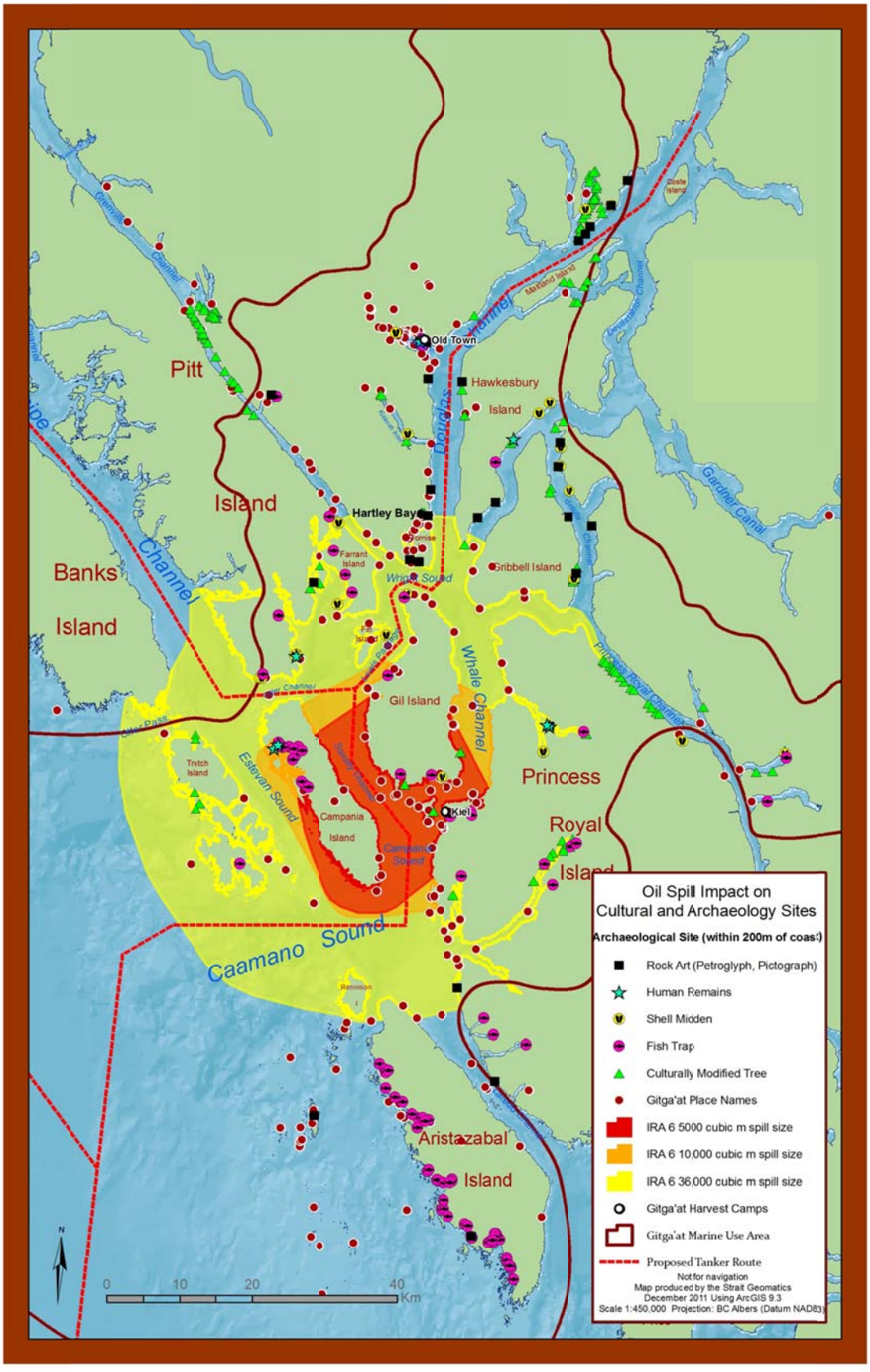
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0
10
20
40
Km

Using the maps as rough estimates of effects of a spill on important there are a number of notable cultural impacts:

There is no spill, even small, that would not impact one way of the other key clusters of culturally important sites or access to these. Medium to large spills under these scenarios would impede access to 30-54+% of site areas overall. In the case of specific categories of sites, the oil coverage in the event of a spill scenario is much higher. For example, in the case of human remains, with a spill at IRA 6 100% of the beaches nearest these would be heavily oiled and/impede access; 72% with a spill at IRA 6.

Given the cultural significance of place, its named, experienced, and richly storied meaning to Gitka'a'ata – it is this perception of loss that resonates most loudly in words included in this report. Respected elder, Helen Clifton put it this way:

"**I think of my own family here. That would be like the tip of the iceberg. There's so much … we're all related. If you change our whole lifestyle then they'll have no choice but to move away.**

It would be just like a landslide.

We're totally interrelated, our dependency on the ocean and the land. That would just be the beginning of family units just … moving. The only ones that would be left would be the old people that don't have the energy and strength to move.

There's an old Gitga'at saying that when they moved to Old Town, as they migrated from the Skeena, that they would move no more. They finally settled up there. That was it. It was the land of plenty.

So the effects of tanker traffic and the Enbridge pipeline … to me, it's just the death of a people I guess. The end of a way of life. So when that happens, that would be just like a landslide … It's just like a domino effect …

What I really think is that there is no future for the youth, the young people, because all of the plans that we have developed has to do with the landscape, the seascape here, it's all interconnected. So they would have no choice, they would move.

You're asking me to give this up as part of my life. My great grandchildren, I want it for them, I really want it for them."

Few scenarios could be more catastrophic for a people and a culture than being forced to leave one's traditional village and territory because of circumstances imposed by others…. Matriarch

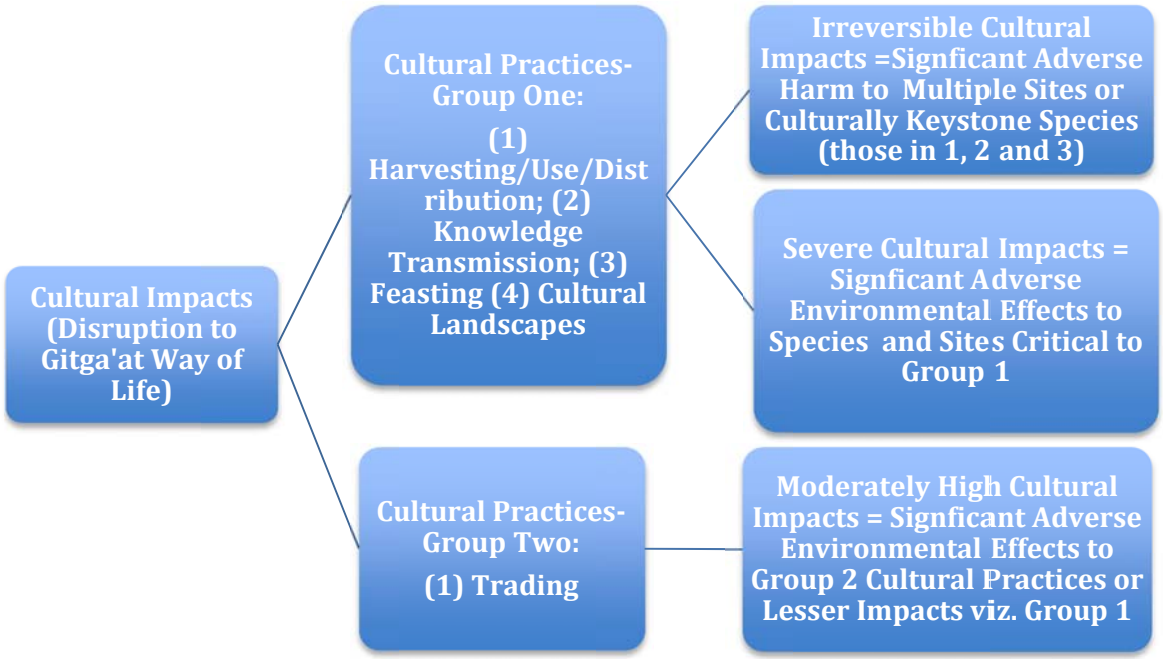
Helen Clifton's statement that this would probably be an outcome of serious ENG damage is compelling, a finding also supported by survey results in Gill & Ritchie (2011).

Summary: Cumulative Irreparable Cultural Impacts

In prior section of this report multiple aspects of culture or specific cultural practices are specified and described, focusing on those of great import to the Gitka'a'ata. Also addressed are cultural impacts introduced through different spill effects, and some based on local observation potential cultural impacts due to proposed routine tanker operation. Cultural impact is itself defined here as [varying levels of] disruption to Gitka'a'ata way of life. The primary or highest order way of life or cultural practices are those affecting: (1) food use, harvesting, and distribution -- the practices that binds Gitka'a'ata together; (2) knowledge transmission or the passing on of cultural, environmental and survival knowledge to future generations; (3) feasting, the central institution that provides for continuity of identity through commemoration, naming, and recitation of oral histories; and (4) access to or importance of the overall cultural landscape. These are primary or highest order cultural practices because this is what the Gitka'a'ata emphasized; because each one is directly linked to cultural continuity; and because each depends on peoples' ability to 'go out' (as the Gitka'a'ata say) on the land or water. They are also highest order because *they are the practices* that bring people together for harvesting, feasting and food distribution; for commemoration and the dissemination of oral history; and because they involve reaching out to and cementing ties with Gitka'a'ata residing in other places (e.g., Prince Rupert). Cultural landscapes are key even though one can still recall place names and stories (for a time at least) if the ability to 'go out to these' places were disrupted by a spill. [That said, stigmatizing potent cultural landscapes such as the petroglyphs with bitumen or pollution damage would be a profound harm in its own right.] The next highest-order cultural practices are those linked to cross-nation trade. In making this distinction, we (the report's lead and co-author) do not mean to suggest in any way that trade is not important. Rather, in theory at least, it might be handled by substitution (e.g., for trade, if money were no object, which is never the case, one could conceivably purchase trade goods such as eulachon grease or soapberries.

Defining throughout the report both what the key cultural practices are, and how they might be impacted by the ENGP, also provides for clear instruction on 'what' culturally speaking is at stake and on how these practices are potentially impacted by tanker traffic and potential spills. In the tables of cultural impact in the report's main body, there are listed a number of cultural impacts rated 'severe'. These are the result of several stages of analyses laid out in Figure 3 below. Defining cultural impact as disruption of Gitga'at ways of life, we took all of the species in Group One and Group Two cultural practices and looked at those that would suffer significant adverse environmental effects (SAEE) as recorded in the environment report Bocking et al. (2011). If that SAEE impacted a 'Cultural Practices Group 1' species, we deemed the cultural impact 'severe'. If it impacted a 'Cultural Practices Group 2' species, we deemed the cultural impact "moderately high".

CULTURAL PRACTICES AND CULTURAL IMPACTS



Cumulative Cultural Impacts:

What are less fully addressed throughout are cumulative cultural impacts, though some mention of these is made in appropriate sections. This is a critical point, as the upper right-hand box in above Figure 3 indicates. Many cultural impacts are a direct result of environmental harms, all the more so because even a small spill, at IRA 2 for example, would coat 50% or more of the harvesting areas for cockles and crab. And a small or larger spill near Kiel would coat it and the adjacent areas key to Spring harvest camp: southwards on Princess Royal Island and along Campania Island, for example, where halibut and seaweed, spring salmon, spring sockeye, chitons and other seafood are harvested, and where Steller sea lions and whales are routinely encountered. There are so many ways – both direct and indirect – in which impacts to these species and their habitats affect Gitga'at health and well-being, both short term and long term.

Beyond this general point, cumulative cultural impacts are assessed below as harms to multiple cultural keystone species. Following the work of Garibaldi and Turner (2004), a "cultural keystone species" is a species that is so culturally salient that it shapes the identity of a people. It is metaphorically parallel to an ecological keystone species. A cultural keystone species has a role in virtually every aspect of cultural life, given its intensity and multiplicity of uses, its use as an indicator of seasonal rounds, as an entity in cultural narratives, discourse, vocabulary, ceremonies or other symbolic phenomena, and as a central vehicle of knowledge transmission (p. 4-5).

Across the different cultural practices potentially impacted by the proposed ENGP and outlined in the above report sections, a handful of such cultural keystone species can be identified. To qualify for inclusion as 'cultural keystones', they must be critically important to first order cultural practices: (1) food use, harvest and distribution; (2) knowledge transmission; and (3) feasting. Species (n=8) that fit this criterion are: edible seaweed, halibut, cockles, salmon, crab, prawns, herring eggs, and harbour seal.

In Table 8 below, the number of keystone species projected to suffer highest order harms given even a small spill is particularly apparent.

Table 8: Cultural impact of spill scenarios on cultural keystone species

	Edible seaweed	Halibut	Cockles	Salmon	Crab	Prawns	Herring eggs	Harbour seal
Small spill	50% of harvest area (IRA 6)	Unknown (population)	>50% of harvest area (IRA 2)		>50% of harvest area (IRA 2)	Unknown (population)		
Medium spill	>50% of harvest area (IRA 6)	Unknown (population)	>50% of harvest area (IRA 2)	Significant, adverse stock-level effect	>50% of harvest area (IRA 2)	Unknown (population)	Significant, adverse stock-level effect	>50% of harvest area (IRA 2)
Large spill	>50% of harvest area (IRA 2 or IRA 6)	>50% of harvest area (IRA 2 or IRA 6)	>50% of harvest area (IRA 2 or 6)	>50% of harvest area (IRA 2 or IRA 6, population)	>50% of harvest area (IRA 2 or IRA 6)	>50% of harvest area (IRA 6)	Significant,adverse stock-level effect	>50% of harvest area (IRA 2 or IRA 6)
Key sites[19]	Kiel	Kiel	Kish Kosh, 7-Mile, Big Bay, Malsey Bay	All rivers, ocean	Malsey Bay Big Bay Kish Kosh Old Town	Douglas Channel Kish Kosh	Cornwall Inlet	Kiel Kish Kosh Hartley Bay

Table 8: *Cultural keystone species are those species that are so salient in all key aspects of cultural life that they profoundly shape the cultural identity, reflected in the fundamental role such species play in all primary cultural practices and uses (Garibaldi & Turner 2004, p.5). In the case of the Gitka'a'ata, 8 species are keystone to the extent that they are fundamentally embedded in all Group One cultural practices (1), (2), and (3) above. SAEE harms to keystone species are noted as either a >50% of harvesting areas impacted by spill, or significant stock level effect, which are modeled to occur as the result a spill greater than 5000m3 (small) spill (Table 14 of Bocking et al. 2011). Unknown impacts are identified via the same table.*

[19] This is by no means an exhaustive list of key sites, but only some examples.

There are fully 3 of these – seaweed, cockles, and crab – at this level of spill. At the medium spill level, salmon, herring eggs, and seal are added to the list. At the large spill level, all would suffer impacts. Cultural impacts resulting from damage to these cultural keystone species would be felt on many fronts simultaneously – thus the people would suffer cumulative impacts. Harvesting practices, fundamental as they are to food use, distribution and the coming together of Gitka'a'ata for this purpose, would be lost. The nutritional loss from damage to these important cultural foods represents another level of impact. The inability to teach the cultural knowledge and protocols about these species (their harvesting, processing and knowledge of their habitats and environments, associated social responsibilities, associated stories, ceremonies and language) is another type of [cumulative] impact. Added to these would be the vacuum created if these foods could not be served at feasts. The ability to fulfill social obligations by providing these foods to elders and others in need would be curtailed. Cultural relationships with these species – as having societies akin to those of humans – would also be broken. Opportunities for using these foods and species like sea lions and whales in future economic ventures such as cultural tourism would also be lost, as would opportunities to use the foods in trading with neighbouring peoples. Even the loss of one, two, or three of these species would be potentially irreparable for the Gitga'at. Multiplying these compounding impacts across all the species of high cultural importance in any part of Gitga'at territory begins to demonstrate the inescapable tsunami of cumulative impacts.

Even a conservative judgment about what would constitute a cumulative irreparable impacts on Gitka'a'ata culture can be thought of thus: If something in the order of half of the cultural keystone species were lost or harvest of these were suspended for five years or more, let alone a generation, the cultural harm to ways of life and cultural practices as they are known today would be irreversible.

These research-based assessments of harm also do not consider myriad other possible spills, only those for which modeling data was available. Local observations add significantly to the overall status of potential cultural impacts. The regular presence of tankers, their pollution and wake, is of gravest concern to the Gitka'a'ata. Observations about wake and pollution impacts on harvesting, especially as the ability to harvest and pass knowledge to future generations depends profoundly on elders, indicate significant cultural impact across: practices related to food; oral history passed on at sites; knowledge transmission during harvest; and feasting/ceremonial practices.

In sum, the Gitga'at will be subject to overwhelming cultural risks as a result of the ENGP. Such significant adverse harms are likely even at small spill levels. Significant disruption of cultural practices is also virtually certain in the case of routine tanker traffic.

Appendix A: ENGP Report's definition of "culture"

Enbridge operationalises "culture" using two metrics: language retention, and participation in hunting/fishing/gathering. Two further metrics---retention of ATK and consumption of country foods---are identified, but explicitly excluded from the assessment due to a lack of measurable parameters and of comprehensive data, respectively. The potential impacts of the project on the first two parameters are considered solely in relation to construction and routine operations of the pipeline, and the mechanisms of impact considered are limited to exposure to non-native-speaking co-workers while participating in wage economy activities related to the pipeline, and to a trade-off between time spent in the wage economy versus in participation in hunting/fishing/gathering activities, respectively.

The possibility that environmental impacts of the pipeline project, of routine marine transport activities, or of a potential oil spill during either might have additional impacts especially on participation in traditional food-gathering activities is not considered as an impact. The possibility that perceived impacts on the health of the environment and country foods gathered from it is not even raised, yet available information based on follow-up studies of the Exxon Valdez Oil Spill suggest these are highly probable impacts on the culture of resource-dependent communities (Miraglia 2002).

Other sections of the application do make some reference to broader definitions of aboriginal culture or concerns; for instance, that "Cultural heritage often determines how one perceives the environment and the resources contained within it. While each Aboriginal group is unique, many share certain fundamental environmental values. This type of cultural knowledge and experience often leads to very different interpretations of risk and environmental sustainability than that of mainstream society" is acknowledged, but there is a conspicuous lack of any attempt to understand these cultural interpretations of risk or incorporate them into the risk assessment in any way. Under the heading of "Follow-up and monitoring", it is suggested that "In the event of a spill, it would be appropriate for Elders to conduct ceremonies, and to monitor effects on the environment." It is hard to imagine why a traditional ceremony would even exist for the possibility of accidental yet foreseeable catastrophic destruction of the environmental resource base, nor how conducting such a ceremony would usefully mitigate the cultural impacts of such a catastrophe.

Enbridge definition of "socio-economic well-being"

The application acknowledges the possibility for a spill to affect social and individual well-being. However, the baseline section focuses more narrowly on the percentage of income (i.e. wage economy) derived from maritime activities, and thus potential impact on non-monetized dimensions of "well-being" is not taken up. In addition, the

mitigation options are limited to prompt reimbursement of claims for quantifiable losses; non-quantifiable impacts are not discussed nor are any mitigation options for such impacts presented. Likewise, the introduction to this section references a study of the Exxon Valdez Oil Spill on social well being:

> "A second potential socio-economic effect relates to adverse effects on the social well being of residents of nearby communities. Studies on the effects of EVOS led Picou and Gill (1996, Internet site) to conclude that "renewable resource communities," consisting of individuals "whose primary cultural, social and economic existences are based on the harvest and use of renewable natural resources," are particularly vulnerable to the effects of an oil spill. The study states that a spill might sever the traditional relationships between these communities and seasonal harvest activities. From the residents' perspective, a spill can alter their perception of personal safety and security within their immediate biophysical environment and this can result in social disruption, psychological stress and loss of institutional trust." [Vol 8C, Section 9.5]

However, as above, this acknowledgement is not usefully incorporated into the impact assessment, which focuses narrowly on financial income related to marine-dependent activities, excluding both social and cultural benefits derived from marine resource use, as well as the entire non-market subsistence economy.

The conclusion of this section states that "The full economic and social costs of a spill would only be known after the cleanup has been completed, compensation has been paid, and environmental and social conditions return to near normal". However, there is no detail on how social conditions (e.g. a severance of traditional relationships, as quoted from research on previous oil spills) might be mitigated or assisted in returning to normal, suggesting an implicit assumption that they would do so without intervention. No justification for this assumption is provided, however.

Enbridge assessment of spill impacts

Relevant spill impacts assessed include impacts on heritage resources, on traditional marine use, and on socio-economic conditions, as well as on human health.

Mitigation for impacts on heritage resources is primarily based on containment of spilled oil through booming. Citing the report: Biologically sensitive areas would be priority areas for the deployment of booms and other mitigation. Therefore, environmental effects on intertidal sediment quality are not likely to be significant for more than five years for the majority of sites." **(Note, however: areas important to human communities are over-represented in the "minority" of sites where recovery may take longer than 5 years.)**

Discussion of traditional marine use includes a reference to fisheries uses for food, social and ceremonial purposes, and potential effects of hydrocarbons on these resources being discussed in “section 7.7”, which does not exist in the volume treating spill impacts, and to socio-economic characteristics at main population centres, including Hartley Bay, being discussed in “section 8.5”---section 8.5 in the volume treating oil spills concerns impacts of oil on marine vegetation, nor is there a section 8.5 in any of the three volumes treating socio-economic assessments that contains such a discussion. It is thus not clear where, if anywhere, such a discussion about the effects of hydrocarbons on the social and ceremonial uses of marine resources might exist.

Enbridge’s assessment of spill impacts on socio-economic considerations are discussed above; and is narrowly focused on wage-economic considerations rather than social or cultural ones.

In terms of human health, the risk assessment is explicitly based on a framework of contaminants, receptors and exposure pathways, where no risk is considered possible if any one of those three factors is absent. The actual risk assessment assumes that fish are an insignificant source of persistent contaminants. Further, the assessment uses Health Canada estimates of “seafood” consumption without considering whether Canada-wide averages are accurate for coastal communities, then assumes that half the seafood consumption is shellfish, and that half of shellfish consumption is molluscs and the other half crustaceans. The justifications for these assumptions are unclear. Further, the assessment assumes that immediate short-term bans on seafood harvesting would be implemented to reduce risk by eliminating (in the short term) the exposure pathways. There is no consideration here or elsewhere in the report that such a ban would cause cultural and social impacts in its own right. Again, Miraglia (2002) studying the impacts of the Exxon Valdez Oil Spill found that the cultural and social impacts of the oil spill were particularly mediated by the fear and dread of poor food health, which is heightened when harvesting bans are necessary.

Appendix B: Ratings of culturally important species[20] and ratings x cultural practices.

SPECIES	SM'ALGYAX & LATIN	TRADE USE	TRADE USE EXCLUSIVITY	FOOD USE PREFERENCE[21]	FEASTING USE	FEASTING EXCLUSIVITY	KNOWLEDGE USE	KNOWLEDGE EXCLUSIVITY	KEY LOCATIONS	KEY SEASON
Shellfish, marine invertebrates, seafood: amgyeeka										
Abalone				6	3 (Not available)	3	3	3	Kiel	spring, fall, winter
Chitons**	*'yaans; Katharina tunicata*			6	1	1	3	3	Kiel	May/spring (fall)
Chiton, gumshoe, "China slipper"**	*ts'ak; Cryptochiton stelleri*			6	2	2	3	2	Kiel	May/spring (fall)

[20] Note: species marked with *** have a proportional dietary breakdown of >4.0%, based on Fediuk and Thom Preferred Diet Model (Table 16); those marked with ** have a proportional dietary breakdown between 1.0% and 4.0%; those marked with * have a proportional dietary breakdown <1%. *All species listed have been noted by the Gitga'at to be particularly important culturally*.

[21] As many highly valued foods (e.g. Abalone, Eulachon) have currently depressed food use ratings due to poor availability or conservation concerns, only the food preference ratings were used to reflect cultural importance of food species.

Clam, butter**	*sa'mx; Saxidomus giganteus*	3	3	6	2	2	3	3	Clamstown, Turtle Point, Kish kosh	fall/winter
Clams**	*ts'a'ax; Saxidomus spp.*	3	3	6	2	2	3	3	Clamstown (fin island, Kish kosh?	fall/winter
Clam, Pacific geoduck	*Panopea abrupta*			2	0	1	1	1	?	?
Cockles**	*gaboox; Clinocardium nuttallii*	3	3	6	3	3	3	3	Kish Kosh, 7-mile, big bay, malsey bay	fall/winter
Crab, Dungen-esss***	*k'almoos; cancer magister and other spp*			6	3	3	3	3	Malsey bay, Big bay, kish kosh, old town	
Crab, red rock and others***	*k'almoos; Cancer spp.*			6	1	1	2	1	Old town	
Mussels, California blue***	*hagwn; Mytilus californicus*			6	2	2	3	3	Kiel	winter, spring
Mussels, edible blue	*gyels; Mytilus edulis*			2	1	1	2	1	Kiel	winter, spring
Octopus**	*hats'al; Benthoctopus*			6	1	1	3	3	Kiel	spring, fall, winter

	spp.									
Prawns* **	*gą̲sgos; Pandalus borealis and other spp.*		6	3	2	3	3	Douglas Channel, Gisgos?	winter, spring
Scallops, rock**	*k̲'ą̲l'on; Crassadoma gigantea*		6	1	1	2	2	?	
Scallops, swimming*	*k̲'ą̲l'on; Chlamys hastata and other spp.*		4	1	1	2	2	?	
Sea cucum-ber**	*gyenti many spp.*		6	1	1	2	2	Old town	fall
Shrimp species***	*gą̲sgos; many species*		6	2	1	3	3	?	winter
Urchins,* red and purple	*aswit, ts'akwe'ats; Strongylocentrotus franciscanus and sp.*		4	2	1	3	2	Kiel	fall
Urchin, green*	*aswit; Strongylocentrotus droebachiensis*		4	1	1	2	2	Kiel	fall

Fish										
Cod - Grey **	*k̲'a̲'wts; Gadus macrocephalus*			6	1	1	2	2	near Hartley Bay	
Cod, "kelp" [?]	*ha'noo; ?Microgadus proximus [bait for groundfish]*			2	1	1	2	2	near Hartley Bay	
Eulachon **	*ha'limootk; Thaleichthys pacificus*			6	2	1	3	3	traded, Kitimaat, Nass	winter, spring
Eulachon Grease***				6	3	3	3	3	traded, Kitimaat, Nass	winter, spring
Flounder/sole*	*da̲xs; Platichtys stellatus*			4	1	1	2	1	?	
Hake, or bastard halibut	*balaas; Merluccius productus [bait for groundfish]*			2	0	0	1	1	?	
halibut**	*txaw; Hippoglossus stenolepsis*	3	3	6	3	3	3	3	Kiel	spring, summer, fall, winter
Herring	*tska̲h; Clupea pallasi*			2	1	1	2	3	?	winter

Herring eggs* **	*xs'waanx; Clupea pallasi*			6	3	3	3	3	Cornwall Inlet	winter, early spring
Ling Cod*	*Ophiodon elongatus*	3	3	4	1	1	2	2	?	winter
Rockfish**	*many types; see "snapper"; Sebastes spp.*			6	1	1	2	2	?	
Salmon, combined * **	*hoon 'fish, gen.'; Oncorhynchus spp.*	3	1	6	3	3	3	3	all rivers, ocean	spring, summer, fall
Salmon, chum, or dog* **	*gayniis; Oncorhynchus keta*			6	3	2	3	3	Old town, Hartley Bay	summer, fall
Salmon, coho or silver* **	*üüx; Oncorhynchus kisutch*			6	3	2	3	3	Old town, Hartley Bay	summer, fall
Salmon, humpbackor pink* **	*sti'moon; Oncorhynchus gorbuscha*			6	3	2	3	3	Old town, Hartley Bay	summer, fall
Salmon, sockeye, or blue-back* **	*miso; Oncorhynchus nerka*			6	3	2	3	3	Union Pass, Lowe inlet	spring, summer, fall

Salmon, spring or Chinook* **	*yee; Oncorhynchus tshawytscha*			6	3	2	3	3	near Kiel, near Hartley Bay	spring, summer
Salmon eggs**	*Oncorhynchus spp.*			6	3	3	3	3	Old town	summer, fall
Sablefish, Black cod**	*hadanii; Anoplopoma fimbria*	3	3	6	1	1	2	2	?	winter, spring
Snapper, grey**	*k̲'ayadzen; Sebastes sp.*			6	1	1	2	2	?	winter, spring
Snapper, red, or Yelloweye rockfish**	*ts'mhoon; Sebastes ruberrimus*	3	3	6	1	1	2	2	Kiel	winter, spring
Steelhead,* or rainbow trout	*meliit; Oncorhynchus mykiss*			4	1	1	2	2	?	summer
Trout, cutthroat	*laaẅ; Oncorhynchus clarkii*			2	1	1	2	2	?	
Birds										
Ducks, black – see under Scoter										

Duck, golden eye, sea duck*	*ts'aas; Bucephala spp.*		4		1	2	2	Old town, Quaal R.	fall, winter
Duck, harlequin	*k̲'a̲gaa; Histrionicus histrionicus*		2	1	1	1	2	Old town	fall, winter
Duck, mallard*	*nanaat, nana, an'ana; Anas platyrhynchos*		4	1	1	2	2	Kish Kosh, Old Town	fall, winter
Eagle, bald	*xsgyiik; Haliaeetus leuco cephalus*		2	0	0	3	3	everywhere	
Goose, Canada	*ha̲'a̲x; Branta canadensi s*		2	2	2	2	2	Old town, Kish kosh	fall
Goose, snow	*łii'wn; Chen caerulesce ns*		2	1	1	1	1	Old town	
Gull, seagull*	*ga̲guum; Chroicocephalus philadelphia, Larus spp. eggs*		4	1	1	1	2	Kiel, Campania	spring
Oyster-catcher, black	*gyedmxł; Haematopus bachmani eggs*		2	1	1	1	2	near Kiel	spring

Raven	*gaax, ganhada; Corvus corax*		2	0	0	3	3	everywhere	
Scoter, common* or "black duck"	*ahoo; Melanitta spp. eaten*		4	2	1	2	2	Old town, Kish kosh	fall, winter
Scoter, white-winged,* surf scoter, "black duck"	*amgyiik; Melanitta spp.*		4	2	1	2	2	Old town, Kish kosh	fall, winter
Mammals									
Bear, black	*ol, t'u'utsgm ol; Ursus americanus*		2	1	1	3	3	Kiel, Old town, near Hartley bay	winter
Bear, spirit or Kermode	*mooksgm'ol; Ursus americanus kermodei*		0	0	0	3	3	Princess Royal, Gil Island, Fin Island	
Blackfish	*see whale, killer, also called orca*								
Deer**	*wąn; Odocoileus hemionus*		6	3	2	3	3	Old town, Kiel	summer, fall
Dolphin	*dziiẅ; Phocoenoides dalli*		0	0	0	1	2	?	

Moose**	*wüdzii; Alces alces*		6	1	2	1	2	Old town (not common)	fall
Mountain goat	*mati; Oreamnos americanus*		2	1	1	1	2	mountains near Kiel, old town	fall
Otter, river, or land	*'wạtsa; Lontra canadensis*		0	0	0	2	2	everywhere	
Porpoise, harbour	*dziiẅ; Phocoena phocoena & other spp. P. phocoena species at risk*		0	0	0	2	3		
Seal, harbour**	*üüla; Phoca vitulina*		6	3	2	3	3	Kiel, Kish kosh, near Hartley Bay, many places	spring, fall
Sea lion, Steller	*t'iibn; Eumetopias jubatus species at risk*		2	1	1	3	3	near Kiel	summer
Sea otter	*płoon; Enhydra lutris species at risk*		0	0	0	1	3	? Not found	

Whale, grey	*łbuun; Eschrichtius robustus species at risk*		0	0	0	2	2	Whale channel, Fin island, Campania
Whale, fin	*łbuun; Balaenoptera physalus species at risk*		0	0	0	2	3	Whale channel, Fin island, Campania
Whale, humpback	*łbuun; Megaptera novaeangliae species at risk*		0	0	0	3	3	Whale channel, Fin island, Campania
Whale, killer, Blackfish, or orca	*'naaxł; Orcinus orca species at risk*		0	0	0	3	3	Whale channel, Fin island, Campania
Wolf	*gyibaaw; Canis lupus*		0	0	0	3	3	Kiel, Old town, hartley bay
Marine Algae and Plants								
Kelp, bull	*mo'ox; Nereocystis luetkeana*		6	0	0	2	2	many sites
Kelp, giant	*gyoós; Macrocystis integrifolia*		2	3	2	2	2	many sites

Kelp, short	*daytsh; Alaria sp. and other spp.*			2	1	1	2	2	many sites; Kiel	
Laver, red* edible seaweed**	*la'ask; Porphyra abbottiae and related spp.*	3	3	6	3	3	3	3	Kiel, Campania	
Rockweed or sea wrack	*p'aatsah; Fucus spp.*			2	1	1	2	2	many sites	
Iridescent seaweed	*la'askm üüla "seal seaweed"; Iridaea sp.*			0	0	0	1	2	Kiel, Campania	
Eelgrass gadza k'aw	*herring eggs on eelgrass; Zostera marina*			6	1	1	1	2	many sites	
Terrestrial Plants growing along the coast and vulnerable to spills										
Cedar, western red-	*smgán "real wood"; Thuja plicata [grows along shorelines]*			0	0	0	3	3	Kiel, Kish kosh, Hartley Bay	year round; late spring for bark
Hemlock, western	*gyiik; edible cambium: ksiiw; Tsuga heterophylla [grows along shorelines]*			0	1	3	2	2	Kiel, Turtle Pt, Hartley Bay	late spring for cambium

CrabapplePacific*	*moolks; Malus fusca [grows along shorelines and river estuaries]*		4	2	3	3	3	Kish kosh, Hartley Bay, malsey bay, old town, Quaal R	late summer, fall for fruiting
Blueberry, Alaska* **	*smmaay "real berries"; Vaccinium alaskense [grows along shorelines]*		6	3	2	2	2	hartley bay, old town, quaal r	summer, fall for fruiting
Blueberry, oval-Leaved* **	*xwooksil; Vaccinium ovalifolium [grows along shorelines]*		6	3	2	2	2	hartley bay, old town, quaal r	summer, fall for fruiting
Devil's-club	*wo'oms; Oplopanax horridum [grows along shorelines]*		0	0	0	2	3	Hartley bay, Old town	spring, fall
Highbush Cranberry			0	2	2	2	2	Hartley bay, Kish kosh, Gribble Island	late summer, fall for fruiting

Riceroot, northern, or "chocolate lily"	*miyuubmgyet; Fritillaria camschatensis [grows along shorelines, estuaries and tidal marshes]*		2	1	2	2	2	Kish kosh, Campania Island, Kiel	spring, fall
Salal berries**	*dzawes; Gaultheria shallon [grows along shorelines]*		6	2	2	2	2	Hartley Bay, malsey bay, kiel	summer, fall
Salmonberries***	*mak'ooxs; Rubus spectabilis [grows along river estuaries]*		6	3	2	2	2	Hartley bay, many places	spring, summer
Silverweed, Pacific	*siyeen; Potentilla pacifica [grows along shorelines and tidal marshes]*		2	1	2	1	1	Hartley Bay, Malsey Bay, Kish kosh, Old town	spring, fall
Spruce, Sitka	*sa'mn; Picea sitchensis [grows along river estuaries]*		0	0	0	2	2	Hartley Bay, Kiel, Quaal River	year round

Yew, Pacific	*sahakwdak "bow"; Taxus brevifolia [grows along shorelines]*		0	0	0	2	3	Hartley Bay, near Kiel	year round	

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