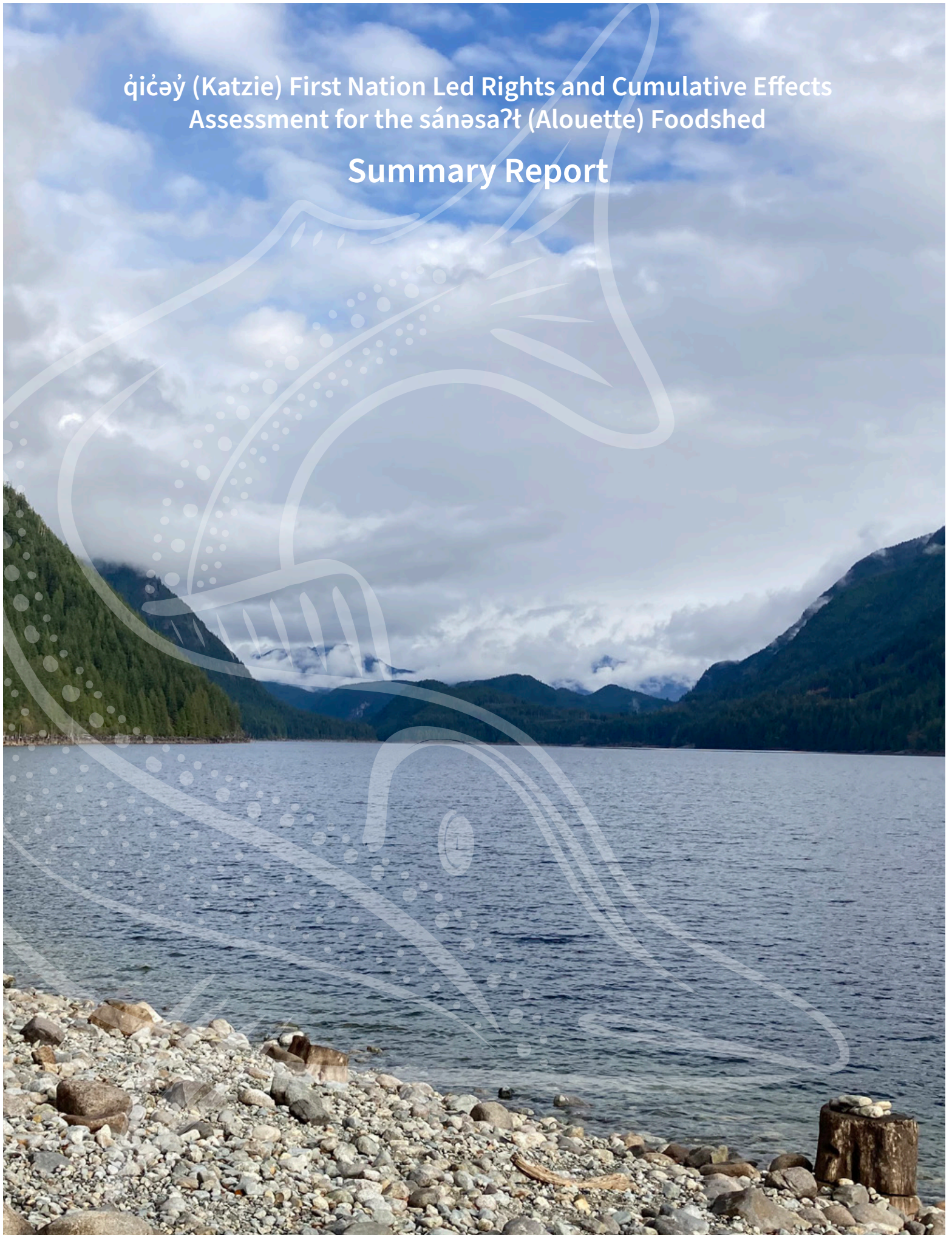


q̓ic̓əy̓ (Katzie) First Nation Led Rights and Cumulative Effects  
Assessment for the s̓an̓əsaʔt̓ (Alouette) Foodshed

Summary Report



# ǰíčǎy (Katzie) First Nation Led Rights and Cumulative Effects Assessment for the sánəsaʔł (Alouette) Foodshed Summary Report

July 2, 2024

This Summary Report is taken from a larger and much more extensive report undertaken between 2021 and 2024. The full report may be made available on request, at the discretion of the ǰíčǎy First Nation.

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## **On behalf of:**

ǰíčǎy First Nation

## **Submitted to:**

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## **Disclaimer:**

The information contained in this Summary Report is drawn from a full and much more extensive report. The Summary or Full Report is based on research conducted by Firelight Research Inc., as well as published works and archival research. It reflects the understandings of the lead authors and is not intended to be a complete depiction of the dynamic and living system of use and knowledge maintained by ǰíčǎy First Nation people. It may be updated, refined, or changed as new information becomes available. All mapped information is based on interviews with ǰíčǎy First Nation knowledge holders conducted within constraints of time, budget, and scope. Base map data originated by CanVec, GeoBase, Geogratis, and ESRI. The information contained herein should not be construed as to define, limit, or otherwise constrain the Treaty or Aboriginal rights of the ǰíčǎy First Nations or any other First Nations or Aboriginal peoples.

*Cover Image: The sánəsaʔł ǰácaʔ (Alouette Lake), BC, 2023 (R. Ford, The Firelight Group)*

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# Forward

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## 1 *q̄ic̄əȳ* law & the *sánəsaʔt* (Alouette)

*q̄ic̄əȳ* law is the first law, and includes many instructions received from *q̄ic̄əȳ*'s powerful Ancestors *cicət siʔém* (creator), *ǰé:l's* (khaals), and *swanəset*. Revitalization of *q̄ic̄əȳ* law is critical to the health of all who visit and inhabit *q̄ic̄əȳ* territory. *q̄ic̄əȳ* law is rooted in *q̄ic̄əȳ snəps* (values) which are ancient teachings passed through families and from which grows *q̄ic̄əȳ* principles, laws, and protocols.

At the same time as the *q̄ic̄əȳ* Led Rights And Cumulative Effects Assessment for the *sánəsaʔt* (Alouette) Foodshed (the Study) was being undertaken, *q̄ic̄əȳ* has also been undertaking a Customary Law Project to reintroduce *q̄ic̄əȳ* law on the land. Our Charter is now complete (**Figure 1**), and we continue to work on the development of *q̄ic̄əȳ* Host and Guest Laws, Next of Kin Laws, Harvesting Laws and other key laws and protocols to guide our work.

Where possible, we have integrated *q̄ic̄əȳ* law into the Study. While the Study, assesses impacts and ways to restore *q̄ic̄əȳ* 'rights,' in a colonial sense this may imply privilege, and *q̄ic̄əȳ* does not have a word for privilege within the *hənq̄əmínəḿ* language. The word 'right' as it is used in the Study is the hereditary obligation of *q̄ic̄əȳ* people to fulfill the responsibility as Guardians of life within the lands and waters of the territory.

Pursuant to *q̄ic̄əȳ* Law and the Customary Law Charter, *q̄ic̄əȳ* has developed a declaration enshrining *q̄ic̄əȳ*, and *q̄ic̄əȳ*'s responsibilities to the life giving waters of the *sanəsaʔt* (Alouette) as our living matriarch, and the obligations owed by guests who use, interact with, and impact these life giving waters. This declaration must guide our work in the *sánəsaʔt* (Alouette). Guests must respect and accommodate *q̄ic̄əȳ*'s rights to exercise its decision-making authority regarding the *sánəsaʔt* (Alouette) in accordance with *q̄ic̄əȳ*'s laws, which include *q̄ic̄əȳ*'s responsibility to maintain the wellbeing of the *sánəsaʔt* (Alouette).

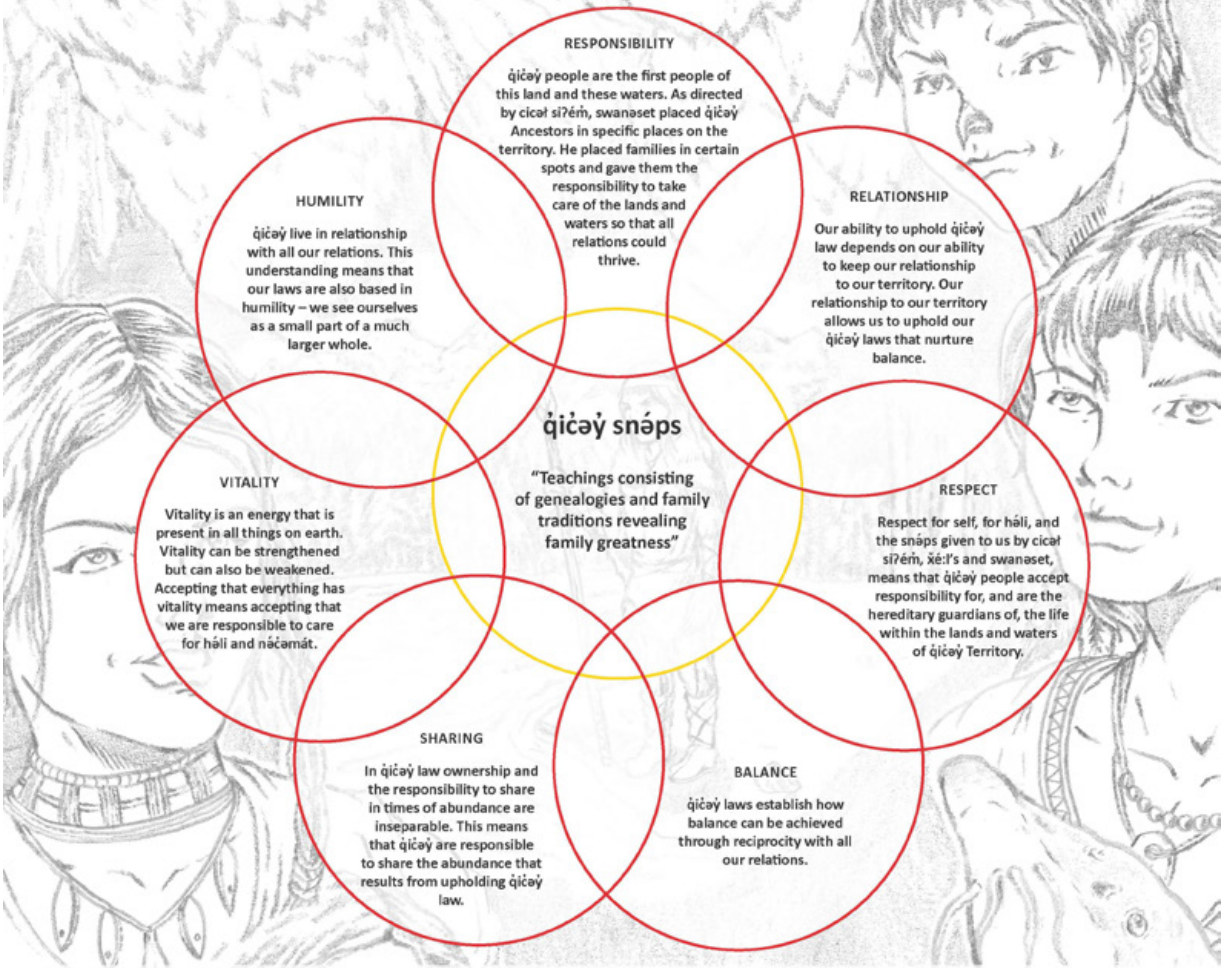
Findings and recommendations of the Study must recognize *q̄ic̄əȳ*'s Living Law, and we must update our protocols when caring for the wellbeing of the *sánəsaʔt* (Alouette), so that we are accountable to our Ancestors, and to our present and future relations.

The vitality of the *sánəsaʔt* (Alouette) was greatly weakened, when life giving waters were dammed and diverted to Stave Lake more than 100 year ago, and the consequences of this have been extensive. As rightful Guardians, in keeping with *q̄ic̄əȳ* law, and *q̄ic̄əȳ*'s *Declaration* on the life giving water of the *sanəsaʔt* (Alouette), vitality must be restored.

## ǰícǎy Ancestral Teachings and Customary Legal Order

ǰícǎy law is the first law. Our law includes the many instructions we received from our powerful Ancestors cǐcǎl sǐ7érǎn (creator), ǰé:l's (khaals), and swanǎset.

We hold that the revitalization of ǰícǎy law is critical to restoring the health of all who visit and inhabit ǰícǎy territory.



### WEALTH

ǰícǎy define wealth as our ability to share the gifts of abundance provided to us by cǐcǎl sǐ7érǎn (creator), ǰé:l's (khaals), and swanǎset. Sometimes wealth is shared in material form (e.g. food, blankets, money), and sometimes it is shared in other equally valuable forms (knowledge, songs, ceremony). Wealth is always meant to be shared. The act of true sharing requires a certain degree of sacrifice. Acts of true sharing strengthen relationships with all our relations.

### ACCOUNTABILITY

ǰícǎy law directs us to be accountable to the past, present, and future generations of all our relations. Accountability creates and nurtures balance in our relationship with the world around us.

### INTENTIONS HAVE CONSEQUENCES

ǰícǎy law does not punish but rather makes space for the consequences of good or bad intention to deliver its own reward or lesson. Intentions have consequences.

### TRUST

Relationships are built on trust. We trust that all who enter our territory will be accountable to ǰícǎy law and protocols.

### NATURAL LAW

ǰícǎy law developed over time as our Ancestors learned with and from our relatives; finned, furred, hooved, rooted, winged and everything else with hǎil (vitality), to find a way to take care of each other. Because our law emerged based on our interconnectedness with all these relations, ǰícǎy law is also 'natural law'.

### LIMITS

To sustain the health of our territory, our Ancestors imposed limits. ǰícǎy law allows ǰícǎy to sanction those who ignore these limits. In extreme circumstances where acts of reparation are not forthcoming from the accountable party, ǰícǎy law states the offending party can be banished and any further requests for permission to re-enter the territory can be denied.

### PROTOCOL

As our Ancestors worked with communities of human and more-than-human relatives to find and keep a balanced way of living that meant that everything had the opportunity to thrive. Our Ancestors also listened closely, and very wisely established rules of conduct called protocols that help us act with the appropriate intention.

### FAMILY

The family, including our community of families, is the most important unit. It is through the family that customary law is passed on to each generation through nǎcǎmǎt (one heart, one mind).

### PLURALITY

ǰícǎy law is not static or fixed. There is 'plurality' or accepted variation in how law is taught and practiced.

### LIVING LAW

ǰícǎy law is customary 'living law' and as such is 'law through practice'. Instructions on how to enact ǰícǎy law are called protocols. Both law and protocols were created with all our relations in mind—past, present, and future. In other words, ǰícǎy law states that intentions and actions must consider our responsibility to our Ancestors, to our present relations, and to our future generations.

Artwork by Tristan Florence  
"Xaals transforms the sturgeon sister and owl brother"



Figure 1: ǰícǎy Customary Law Charter

## **2 sanəsaʔt stáʔləw (Alouette River) Declaration on the life giving water of the sanəsaʔt**

### **Whereas:**

*The life giving waters of the sanəsaʔt (Alouette), which includes all that flows into and out of sanəsaʔt stáʔləw (Alouette River) and sánəsaʔt ʔácaʔ (Alouette Lake), is our matriarch who provides life for all our relations.*

*swanəset shaped the sanəsaʔt stáʔləw (Alouette River) to provide an abundance of gifts for ʔícəy̓.*

*ʔícəy̓ holds legal responsibilities to the life giving waters of the sanəsaʔt (Alouette) in accordance with our legal order.*

*ʔícəy̓ law is Living Law and Natural Law created with all our relations in mind and evolve over time.*

*Indigenous legal orders are recognized as part of Canadian law, including as a basis for Indigenous Peoples' inherent and constitutionally protected title and rights.*

*ʔícəy̓ holds inherent and constitutionally protected title and rights throughout our territory, including to the life giving waters of the sanəsaʔt (Alouette).*

*The Supreme Court of Canada recognizes that reconciliation requires braiding together distinct legal orders, including Indigenous law, Canadian law, and international law.*

*The Crown has made legal commitments to implement United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in Canadian law.*

*UNDRIP protects ʔícəy̓'s right to maintain and strengthen our distinct relationship with the life giving waters of the sanəsaʔt (Alouette) to uphold our responsibilities to future generations.*

*ʔícəy̓ has a hereditary responsibility to ensure that the life giving waters of the sanəsaʔt (Alouette) flow and feed vitality to all our relations including our finned, feathered, furred, hooved and rooted kin.*

*Good guests in ʔícəy̓ territory, including those who use the life giving waters of the sanəsaʔt (Alouette), are accountable to our laws.*

*Good guests have a responsibility to learn, practice and share ʔícəy̓ laws and protocols with respect to the use of the life giving waters of the sanəsaʔt (Alouette).*

*Good guests respect our authority to govern and impose limits on the use of life giving waters of the sanəsaʔt (Alouette) to achieve balance and sustain health and wellbeing for all our relations.*

*Good guests consider the potential impacts and consequences of their actions on ʔícəy̓, including our responsibility for the past, present and future wellbeing of the sanəsaʔt (Alouette).*

*Good guests ask permission to enter our territory and use the life giving waters of the sanāsaʔt (Alouette).*

*Good guests acknowledge when they have contravened q̄ic̄əȳ laws with respect to use of the life giving waters of the sanāsaʔt (Alouette) and seek to repair their mistakes.*

*Good guests recognize that resolving disputes regarding the life giving waters of the sanāsaʔt (Alouette) may require the exchange of wealth, and q̄ic̄əȳ's ability to share the gifts of our abundance in keeping with q̄ic̄əȳ law.*

*The life giving waters of the sanāsaʔt (Alouette), our matriarch, has been restricted and cannot flow and fulfill her purpose of providing life to the sanāsaʔt (Alouette).*

*Threatening the wellbeing of the sanāsaʔt (Alouette), by restricting the flow of the life giving waters, risks q̄ic̄əȳ cultural safety by restricting our ability to achieve balance and share the abundance of our territory.*

*UNDRIP protects q̄ic̄əȳ's right to practice and revitalize our culture and law.*

*The revitalization of q̄ic̄əȳ culture and law is critical to restoring the wellbeing of the sanāsaʔt (Alouette), and the wellbeing of all who visit and inhabit q̄ic̄əȳ territory.*

*q̄ic̄əȳ will take all measures necessary to fulfill our responsibilities to the life giving waters of the sanāsaʔt (Alouette), and all our kin in accordance with our legal order, including defining and reclaiming our hereditary obligations and rights to honor our matriarch.*

**Now therefore be it resolved:**

*The life giving waters of the sanāsaʔt (Alouette) has the right to flow and provide life for all life in q̄ic̄əȳ territory.*

*The life giving waters of the sanāsaʔt (Alouette) has the right to nourish and be in relation to all q̄ic̄əȳ kin.*

*The life giving waters of the sanāsaʔt (Alouette) has the right to be well.*

*The life giving waters of the sanāsaʔt (Alouette) has the right to naturally flow, regenerate and change over time.*

*The life giving waters of the sanāsaʔt (Alouette) has the right to be protected from unauthorized decision making affecting her vitality and rights.*

*The life giving waters of sanāsaʔt (Alouette) has the right to representation authorized by q̄ic̄əȳ to implement and enforce her rights.*



Davidson's Pool, 2023  
(R. Ford, The Firelight Group)

## Introduction

sánəsaʔt (Alouette), was where q̄icəy' Ancestors lived, and by extension is the name of the sánəsaʔt stáʔləw (Alouette River) and sánəsaʔt ʔ́acaʔ (Alouette Lake), though other sites within the sánəsaʔt (Alouette) bare q̄icəy' names.

We are water people. Water is our matriarch - one of our Eldest relatives. When the life that flowed out of sánəsaʔt ʔ́acaʔ (Alouette Lake) was dammed and diverted to Stave Lake, the sánəsaʔt (Alouette) became unwell. Water is above all and when water is unwell, all relationships and health becomes unwell. The purpose of water is to flow. Without this flow we cannot care for our furred, finned, hooved, rooted, and feathered relatives, who in turn cannot nurture and nourish us.

It is our responsibility as q̄icəy' people, to nurture our matriarch - to ensure that she is treated as a living entity that supports all other living things. She needs to flow, breathe, and live the way she was meant to. Her needs are above all.

Without water we do not have life.



# 1 PURPOSE

The *q̓ic̓áy* Led Rights and Cumulative Effects Assessment for the *sánəsaʔt* (Alouette) Foodshed (“the Study”) documents effects that have occurred since contact in the landscape supported by *sánəsaʔt stáʔləw* (Alouette River), Alouette Reservoir, their tributaries, from the highest mountains to where it joins the Pitt River and throughout the Pitt Lowlands. The Study describes how these effects have impacted the practice of *q̓ic̓áy* Rights and identifies actions to incrementally improve conditions and reduce those impacts.

The Study, partially funded by BC Hydro, will inform all discussions between *q̓ic̓áy* First Nation and BC Hydro on water use and restoration of the health of all living things relying on Alouette water. This includes dam safety projects, the Water Use Plan Order Review (“WUPOR”) for the Alouette Watershed, the Fisheries Act Authorization related to the WUPOR, License for Power Generation and the future of the Alouette Generating Station, fish and wildlife population and habitat restoration including fish passage around the dam for *q̓ic̓áy*’s sockeye family, and restoration of balanced flow to the river that was dammed and diverted to Stave Lake. The Study will also inform discussions with other Guests in *q̓ic̓áy* Territory.

By documenting cumulative impacts to *q̓ic̓áy* Rights, the Study places the impacts of BC Hydro infrastructure, including the Alouette Dam and Alouette Tunnel, on *q̓ic̓áy* Rights into the full context of *q̓ic̓áy* reality. The loss of water to *sánəsaʔt stáʔləw* (Alouette River) and the damming of *sánəsaʔt ʔacaʔ* (Alouette Lake), and its cascading effects, including the disconnection of the sockeye migration, have impacted and continue to impact an area that physically and spiritually sustained *q̓ic̓áy* for generations. The Study sets priorities and provides recommendations to restore the water and land in and around the *sánəsaʔt* (Alouette) so *q̓ic̓áy* people can continue to revitalize and practice *q̓ic̓áy* laws and Rights.

BC Hydro has been diverting water from the *sánəsaʔt* (Alouette) through a tunnel into Stave Lake since 1928. BC Hydro infrastructure affecting the *sánəsaʔt* (Alouette) includes the Alouette Dam and the Alouette Tunnel. In the Stave Watershed, BC Hydro infrastructure includes the Alouette Powerhouse, the Stave Falls Dam and Powerhouse, and the Ruskin Dam and Powerhouse. The Alouette Tunnel can move water at a rate of 53 cubic meters per second (cms) and the Alouette Generating Station, which has not been operating since 2010, can utilize up to 28 cms of those flows. The rest of the flows are sent through the adit gate, which allows water to bypass the Alouette Generating Station into Stave Lake for power generation at Stave Falls and Ruskin Powerhouses. BC Hydro lowers the Alouette Reservoir when there is a risk of flood and uses all water from the Alouette to generate power at the Stave and Ruskin Powerhouses.

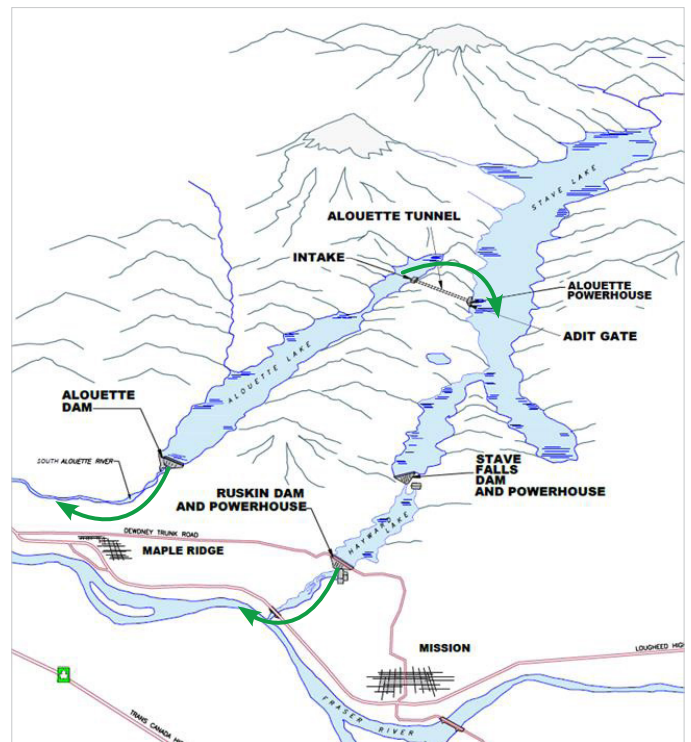


Figure 2: Alouette - Stave - Ruskin Hydro Facilities, green arrows indicate direction of water flow (Source BC Hydro)

## 2 THE FOODSHED CONCEPT

The spatial scope for the Study is the sánəsaʔt (Alouette) foodshed. The foodshed is an emerging concept that allows people to utilize both spatial and temporal aspects of Indigenous food resources for engagement in planning and management exercises (Sarna-Wojcicki, Sowerwine, and Hillman 2019). The foodshed, as opposed to the watershed, recognizes Indigenous relationships with an entire landscape.

ǰícəy utilized all parts of ǰícəy territory in a particular annual pattern called the ǰícəy Seasonal Round. This was described by Simon Pierre, a ǰícəy Knowledge Holder, to anthropologist Wayne Suttles in 1955. The sánəsaʔt (Alouette) and surrounding areas were an important part of the ǰícəy Seasonal Round.

**Figure 6** illustrates what Simon Pierre shared.

*“Water is a very important, water source for us, you know not only for fishes and plant life, but spiritually we use that water... for cleansing ourselves and getting back to nature is the important thing.” (K08)*

Oral and written history tells of ǰícəy people’s way of life in the sánəsaʔt (Alouette). ǰícəy Ancestors lived along the shores of the Fraser River, Pitt Lake, sánəsaʔt stáʔləw (Alouette River) and it’s connected network of sloughs throughout the lowlands for thousands of years.

The slow-moving waterways of the sloughs provided ǰícəy Ancestors with reliable transportation and trade routes, providing access to caretaken for the territory and its abundance. The sánəsaʔt (Alouette) has always been part of ǰícəy identity and culture. wapato, pictured below, was a key gift that supported ǰícəy Ancestors. It grew throughout the lowlands and was cultivated and traded by ǰícəy Ancestors.



Figure 3: Wapato tuber, 2022 (R. Leon, ǰícəy First Nation)



Figure 4: Wapato. Photo: ǰícəy First Nation (2017)

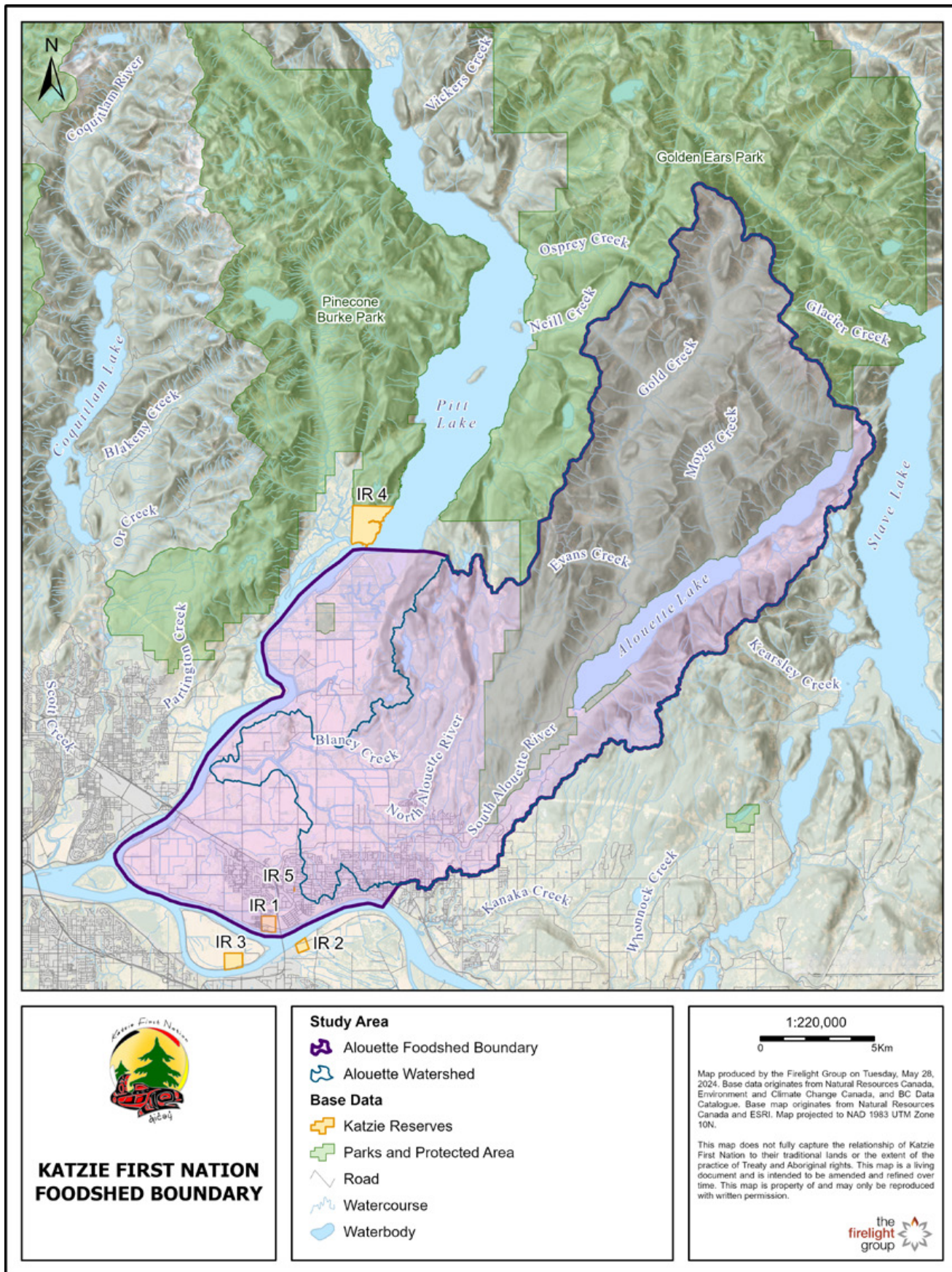


Figure 5: The sánəsaʔt (Alouette) Foodshed Boundary.

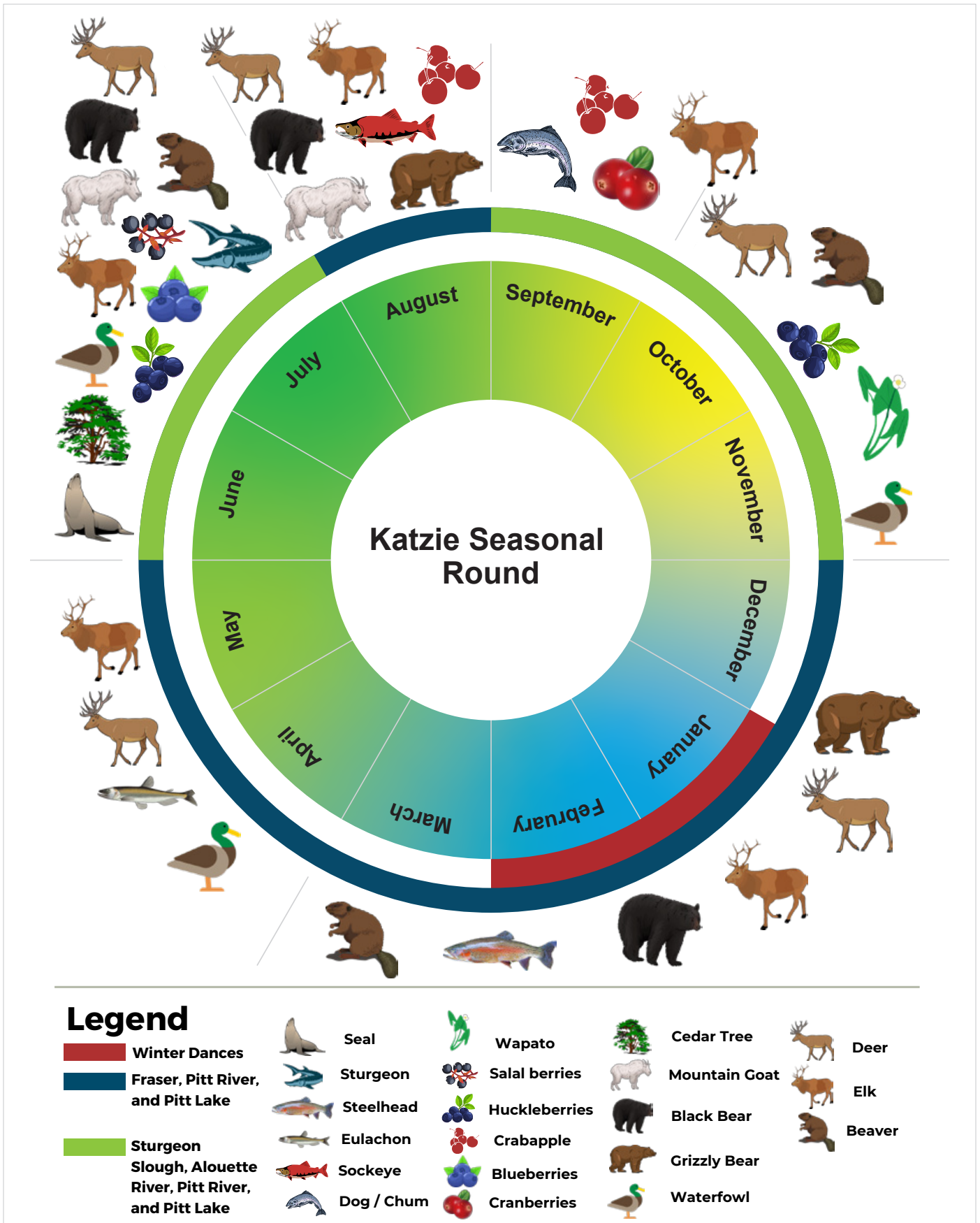


Figure 6: The Katzie Seasonal Round. Developed by The Firelight Group using Jenness (1955) and Hoffmann (2017).

### 3 HOW the sánəsaʔt CAME TO BE

Old Pierre, a ǰícəy̓ elder, spoke with an anthropologist in 1936. This anthropologist, Diamond Jenness, wrote down what Old Pierre said, including an account of the origins of ǰícəy̓. Old Pierre said He Who Dwells Above created ǰícəy̓ Ancestors at Pitt Lake. Afterwards, He Who Dwells Above created the supernatural benefactor swanəset at Sheridan Hill. It was swanəset who was responsible for making the Alouette River and slough system.

According to Old Pierre (Jenness 1955):

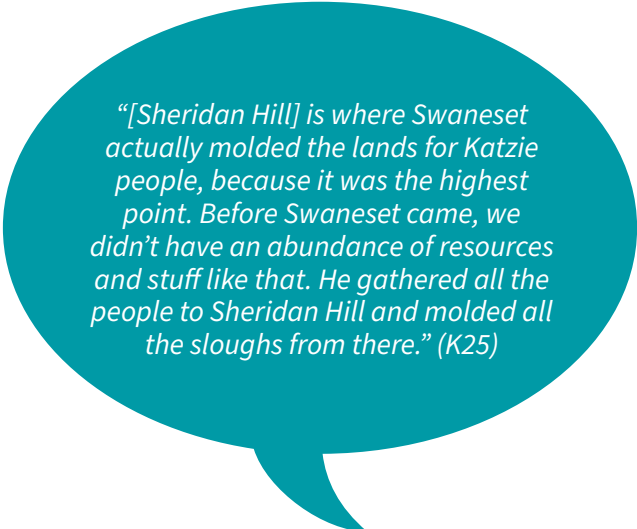
*As swanəset stood on Sheridan Hill, his gaze wandered over what is now called Pitt Meadow, and he thought of all the berries and roots that might grow there if only the land were drained. He remembered what He Who Dwells Above had said to him: 'I did not finish my work here. You finish it and make sloughs.' Straightaway, therefore, he dressed himself in his regalia and drew the course of different sloughs on his face with red ochre. Then he raised his eyes in prayer to the Lord Above and lifted his hand. First arose Sturgeon Slough, the 'short cut' that runs from Pitt Lake to Pitt Meadow, exactly as he had drawn it on his face. From Sturgeon Slough he made a number of branching sloughs, to each of which he gave a name.*

*Next swanəset created Alouette River and named it sánəsaʔt (the place where people go to fish), and from this river to Sturgeon Slough he created two other sloughs, sxwta'qwsət (the short cut) and sqa'ʔqəʔlə (the place where people shall work in the mud like muskrats as they drag their canoes across).*

*Finally swanəset made sǰáyǰəyaʔt státləw (ǰícəy̓ Slough) from sánəsaʔt stáʔləw (Alouette River) to ǰícəy̓, but left the last 300 yards unfinished lest it should drain into the Fraser River. Satisfied with his work, he returned to his people on Sheridan Hill and announced that he had reshaped the land so that it would provide them with an abundance of Indian potatoes, cranberries, and other foods.*

### 4 THE sánəsaʔt AND THE SETTLERS

European records describing the Fraser River Valley begin in the late 18th century (Kew 2004). By the time Fort Langley was established by the Hudson's Bay Company in 1827, ǰícəy̓ had already suffered serious losses from being exposed to European diseases like smallpox. As the European presence became more established, so too did European ideas of property rights and conceptions of Indigenous peoples increasingly drive major change in the sánəsaʔt Alouette) (KLUOIAST 2004).



*"[Sheridan Hill] is where Swanaset actually molded the lands for Katzie people, because it was the highest point. Before Swanaset came, we didn't have an abundance of resources and stuff like that. He gathered all the people to Sheridan Hill and molded all the sloughs from there." (K25)*

q̄ic̄əȳ people were removed from their traditional lands and put onto reserves created during the colonial administration of Governor James Douglas in 1861 and 1863. At the time, reserves were to include lands for farming and fishing, which q̄ic̄əȳ did extensively throughout the territory however, in 1864 when Joseph Trutch took over for James Douglas the size of q̄ic̄əȳ' s reserves were greatly reduced and key harvesting areas that q̄ic̄əȳ attended to for generations, was taken and given to European settlers. q̄ic̄əȳ never ceded their territory through the agreement of a treaty with the colonial government. This means that q̄ic̄əȳ never gave the colonial government title to their lands (q̄ic̄əȳ First Nation 2020).

Because the lowlands were frequently inundated by the tides and by seasonal floods, the settlers began diking and draining the lands for agriculture (Collins 1975). This flood management infrastructure disrupted the ancient system of sloughs and wetlands in the region, disrupting traditional fishing and harvesting activities as well as q̄ic̄əȳ' s tradition of canoe-based travel (Lyons et al. 2021).

The railway came to the s̄an̄əsaʔt̄ (Alouette) in 1884 and made the area even more lucrative for agricultural developers (Collins 1975). The railway fueled exploitation of other resources in the s̄an̄əsaʔt̄ (Alouette) such as forests for lumber and logs, which were transported by rail to ports (Boyle 1997).

In 1928, the Alouette Dam was completed, and water began to be diverted out of the s̄an̄əsaʔt̄ (Alouette) via the Alouette Tunnel and into Stave Lake for electricity generation at the Alouette, Stave, Ruskin Generating Stations. Electricity generation fueled expansion and densification of urban areas throughout the s̄an̄əsaʔt̄ (Alouette). Continued development and settler use of the s̄an̄əsaʔt̄ (Alouette) from Golden Ears Provincial Park to the lowlands continues to alienate q̄ic̄əȳ people from their Ancestral lands.

*View of Alouette Reservoir looking at the dam present day, 2023 (R. Ford, The Firelight Group)*



*View of the s̄an̄əsaʔt̄ st̄áʔl̄əw (Alouette River) looking into the lake prior to dam construction, 1924 (source Maple Ridge Museum)*



# Methodology

## 1 STUDY TEAM

This report was completed by a multidisciplinary team (“Study Team”) with ǰícǎy First Nation and The Firelight Group at its core. The Firelight Group worked with ǰícǎy First Nation Territorial Guardianship & Referrals Department Staff to develop the data collection methods, the assessment framework and its application, and communication materials.

The Study Benefitted from a review of technical information from three companies. Instream Fisheries Research provided review of fisheries information. Boreal Resources provided a review of hydrology data. Ursus Heritage Consulting provided a review of archaeology data.

Staff from Katzie Development Limited Partnership supported the Firelight Indigenous Knowledge Research team with the community engagement for the Study.

## 2 SPATIAL AND TEMPORAL SCOPE

The spatial scope of the Study is the sánəsaʔt (Alouette) foodshed (the foodshed) (**Figure 5**). The Study Team looked at the impacts of activities and development within sánəsaʔt ǰacaʔ (Alouette Lake) and its tributaries, sánəsaʔt stáʔləw (Alouette River) and its tributaries including the North and South sánəsaʔt (Alouette), and the network of ancient slough that flowed throughout the Pitt Lowlands. The temporal scope for the Study includes three time periods:

The temporal scope for the Study includes three time periods:

- the Historical Period (Pre-European contact – 1850),
- the Historical Post-Settler Period (1850 – 1928), and
- the Late Historical to Present (1928 – Present)

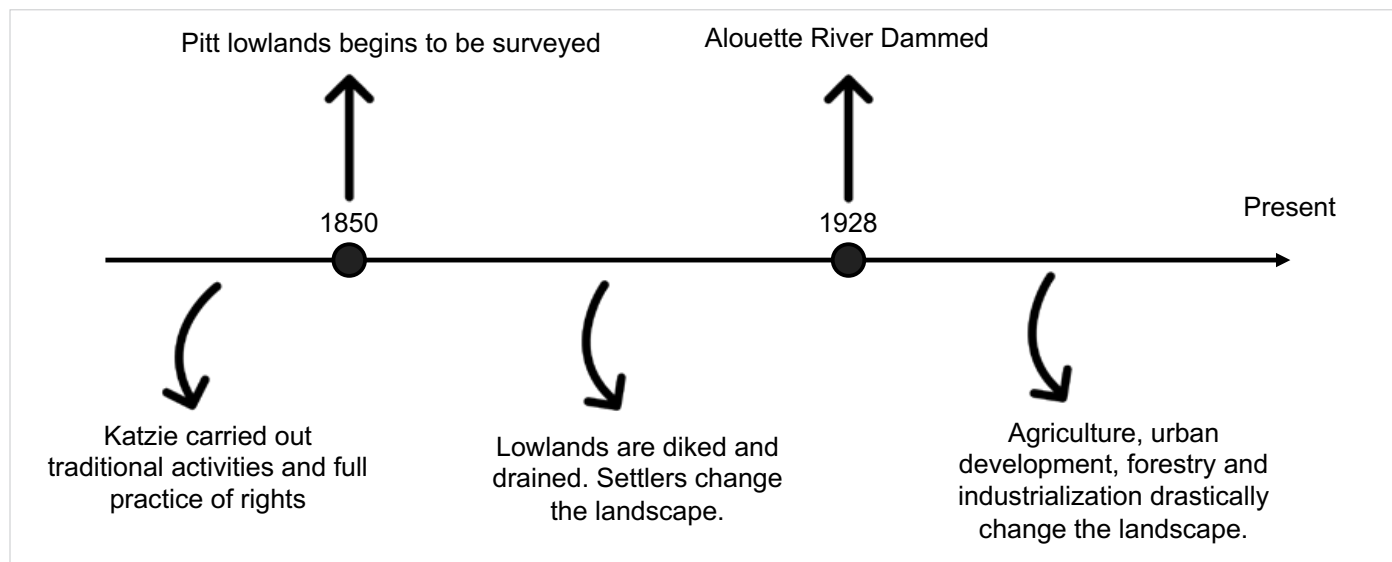


Figure 7: Temporal Scope for the Study.

The Study Team identified major events and activities that contributed to the cumulative effects within these different time periods.

To describe cumulative impacts on  Rights that have occurred in the s (Alouette) since Contact, the Study Team identified core elements that define  's way of life that may have been impacted or may be impacted in the foreseeable future. These elements are represented throughout the Study as nine Valued Components (VCs) which are shown in the figure below.

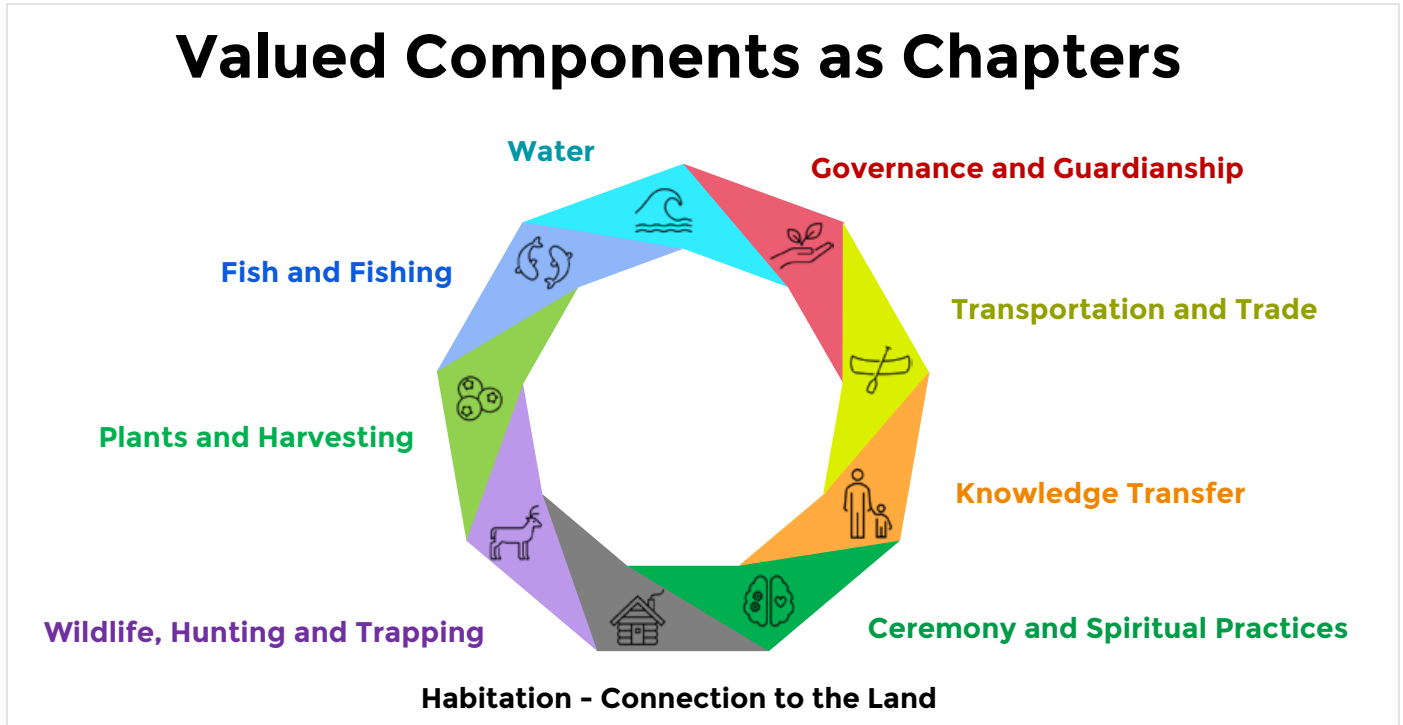


Figure 8. Study Valued Components.

Each VC is tied to specific  Right. These rights were categorized to facilitate the assessment of impacts, and the categories were validated by . To evaluate how VCs and  Rights have been impacted, each VC is associated with a set of indicators that allow the Study Team to evaluate the health of the VC.

Table 1.  Valued Components, Indicators for Health, and Corresponding  Right.

Valued Component	Indicators	 Right
Water	Quantity	 Right to clean, healthy water throughout the s (Alouette).
	Quality	
Fish and Fishing	Habitat Health	 Rights to access preferred fishing areas, to access healthy fish, and to harvest as many fish as needed for consumption and sharing.
	Fish Population Health	
	Fishing Health	



Valued Component	Indicators	q̄ic̄aȳ Right
Plants and Harvesting	Abundance of Plants	q̄ic̄aȳ Right to access healthy plants and harvesting sites, as well as their ability to harvest plants in sufficient quantities for consumption and sharing.
	Access for Harvest	
Wildlife, Hunting, Trapping	Abundance of wildlife	q̄ic̄aȳ Right to access preferred harvesting areas; access to healthy wildlife; and ability to harvest as much wildlife as needed for consumption and sharing.
	Wildlife Habitat Health	
	Ability to hunt and trap	
Governance and Guardianship	q̄ic̄aȳ capacity to monitor the s̄an̄asaʔt (Alouette)	q̄ic̄aȳ Right to apply customary laws and protocols to land, water, fish, and wildlife management.
	q̄ic̄aȳ ability to regulate activities	
Connection to Land	Peaceful areas for temporary time on land	q̄ic̄aȳ Right to access preferred, undisturbed area to connect with the territory
	Access to and ability to be in preferred areas	
Transportation and Trade	Ability to use pre-Contact transportation networks	q̄ic̄aȳ Right to travel throughout the territory as desired and to access preferred trade goods.
	Access to canoes and skills for canoeing	
	Abundance of resources to share	
Knowledge Transfer	Access to areas where knowledge can be shared	q̄ic̄aȳ Right to access resources necessary for transferring knowledge.
	Availability of waterflow, fish, wildlife, and plant populations	
	Availability of q̄ic̄aȳ Knowledge	
Ceremony and Spiritual Practices	Availability of suitable areas for practice	q̄ic̄aȳ Right to access undisturbed, ecologically intact, private spaces for ceremony, meditation, and spiritual practice.
	Access to maintenance of important sites	
	Access to and availability of resources and knowledge necessary for practice	

### 3 INFORMATION COLLECTION

The Study takes a two-eyed seeing approach, learning to see from one eye with the strengths of Indigenous knowledge and ways of knowing, and from the other eye with the strengths of western knowledge and ways of knowing for the benefit of all. The Study utilized the following to assess the cumulative impact on ǰícǎy rights and culture:

- A review of existing written information on ǰícǎy rights, culture, lands, and waters.
- Foodshed mapping interviews with 32 ǰícǎy people.
- Five Family Meetings.
- On-the-land knowledge sharing between ǰícǎy Knowledge Holders and researchers.
- Qualitative data analysis.
- Technical expert data analysis.
- Map development and analysis; and
- A final verification process.

The Study uses information provided by ǰícǎy people through community engagement to describe the importance of each VC and the changes that have occurred within the sánəsaʔt (Alouette) to each VC over time. All ǰícǎy people were invited to participate in interviews and Family Meetings. Western knowledge and technical expert analysis provided additional information on the extent and magnitude of these changes. Each VC Chapter ends in a section called “ǰícǎy’s Future Vision.” This is a summary of what ǰícǎy people said about what they would like to see in the future for each VC. While other sections in each VC chapter use a mix of ǰícǎy community and western knowledge, the Future Vision section is informed only by the information shared during community engagement for the Study.

### 4 ASSESSMENT FRAMEWORK

This goal of the Study is to determine the severity of impacts to ǰícǎy Rights due to an accumulation of effects from multiple sources over time. To complete this task, the Study Team built a framework for using the qualitative and quantitative information available to describe effects to VCs based on two effects characterization criteria: magnitude and geographic extent. The magnitude and geographic extent of the effects on the VC were used to derive a score of severity on the impacts to associated ǰícǎy rights.

The benefits of building a structured process for sorting and interpreting information is that it shows all readers, including the ǰícǎy community and BC Hydro exactly how the severity of effects to ǰícǎy Rights have been determined through the Study. The most important point is that the results reflect community perspective and experience. The western information informs the larger discussion about the VC but does not override the community perspective.

The Assessment Framework is summarized in the figure on the next page.

## METHODS

This is how the assessment was carried out.

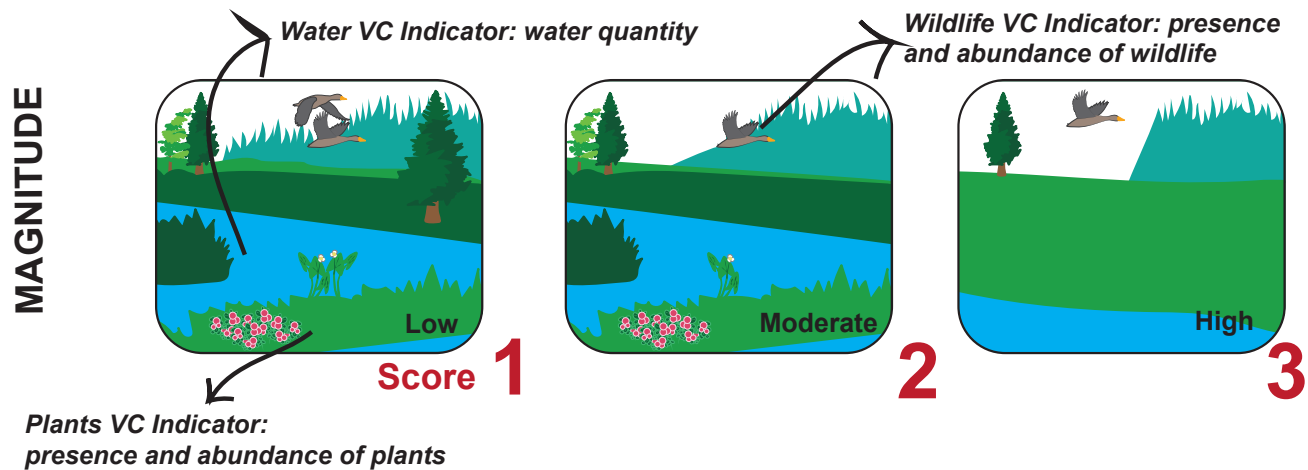
### Pre-Contact Conditions



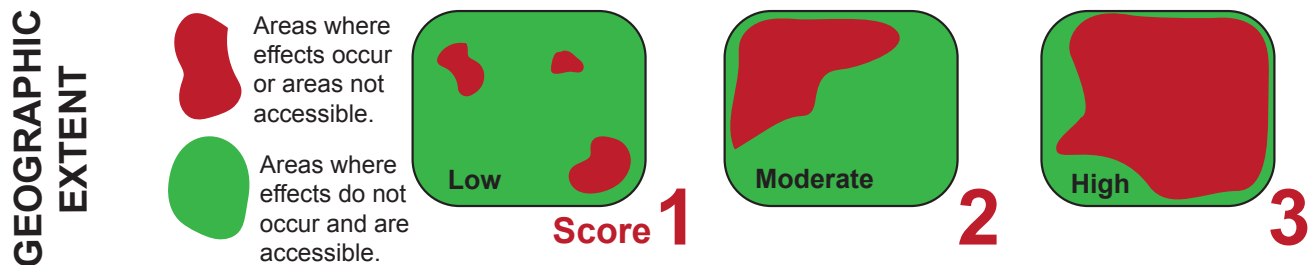
The study first describes what the Alouette Foodshed looked like before settlers came to the area and how Katzie ancestors were able to live, move, harvest, practice ceremony, and share knowledge across the land and water. The report describes these conditions through Valued Components (VCs).

### What are conditions like today?

The study describes the current conditions of VCs in the Alouette Foodshed using indicators that help us measure changes to VC health. The study summarizes how much the indicators have changed with a magnitude rating. Below are a few of the indicators used in the study to describe changes that have occurred.



The study describes how much of the Alouette Foodshed has been changed through a geographic extent rating.



### How severe are the impacts to Katzie Rights?

For each VC, the study combines all scores across all indicators to identify the severity of impacts on Katzie Rights through a severity score. **The severity score is an average of all magnitude and geographic extent scores for each indicator.**

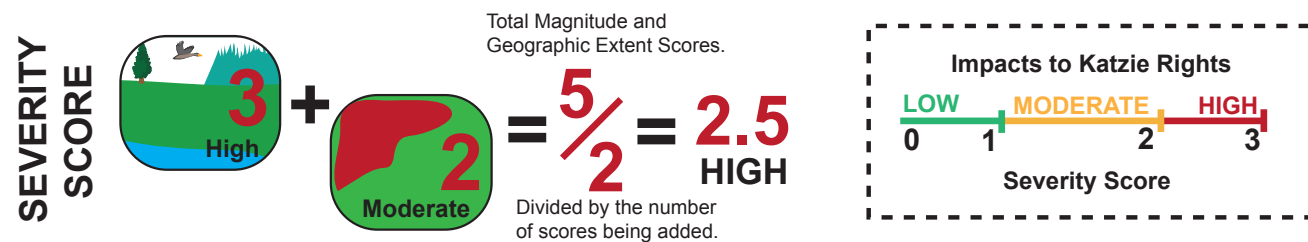


Figure 9: Assessment Framework for the Study.

Lower sánəsaʔt stáʔləw (Alouette River) Side Channel, 2020 (R. Leon, qičəy First Nation)

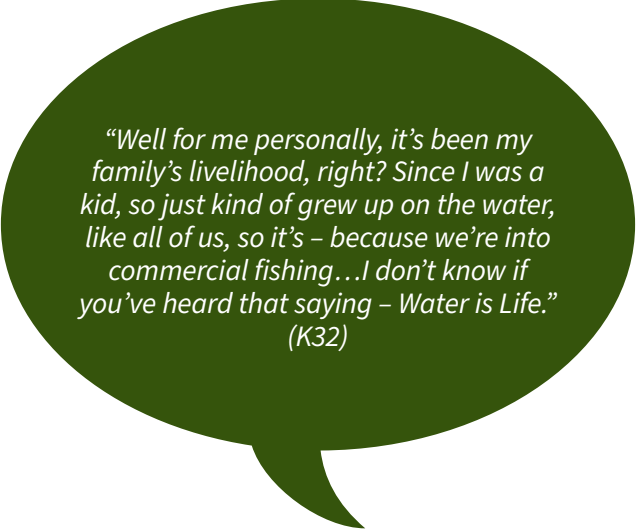


# Results

## 1 WATER

### 1.1 Importance to ǰícǰy

To ǰícǰy people, water is a sacred living being – a relative ǰícǰy cannot live without. Water is the matriarch that provides life for all life. Water is a living force whose purpose is to flow. This flow nourishes the ǰícǰy way of life and all furred, finned, hooved, rooted, and feathered relatives.



*“Well for me personally, it’s been my family’s livelihood, right? Since I was a kid, so just kind of grew up on the water, like all of us, so it’s – because we’re into commercial fishing...I don’t know if you’ve heard that saying – Water is Life.”*  
(K32)

### 1.2 Pre-Contact Conditions

In the pre-Contact period, water flowed from the mountains into sánəsaʔt ǰacaʔ (Alouette Lake), two lakes – an upper and lower lake that were separated by a flowing channel where ǰícǰy once fished. Water then flowed from these lakes down the sánəsaʔt stáʔləw (Alouette River), joined by several much smaller tributaries and out into the Pitt River. The lower reaches of sánəsaʔt stáʔləw (Alouette River) are, like the Fraser and Pitt Rivers, tidally influenced. It was the flush of the tide and flow of Pitt and sánəsaʔt stáʔləw (Alouette River) that brought vitality to the foodshed.

### 1.3 Change Over Time

Starting in the 1850s, the lowlands began to be diked and drained. In 1928 the Alouette Dam was finished, and the life giving waters of the sánəsaʔt (Alouette) were dammed and diverted to Stave Lake. Immediately following the building of the dam, the only consistent sources of water to sánəsaʔt stáʔləw (Alouette River) were small tributaries downstream. The average annual flow of sánəsaʔt stáʔləw (Alouette River) went from 22m<sup>3</sup>/s to no flow at all. In 1995, BC Hydro began a release of 2-3m<sup>3</sup>/s from the reservoir to sánəsaʔt stáʔləw (Alouette River), and more recently have released 3-4.5m<sup>3</sup>/s in the spring to support the outmigration of sockeye smolts.

The consistent flows to the sánəsaʔt stáʔləw (Alouette River) helped fish return, but does not follow the natural cycle of flows, where winter flows were high and summer flows, low. Today, about 86% of flows that should go into the sánəsaʔt (Alouette) are being diverted into Stave Lake. The agricultural and urban development across the foodshed has disconnected the lowland from natural tidal flushing, and the sloughs are stagnant.

Several ǰícǰy people identified that they are concerned about low water flows resulting in water temperatures that are too warm. In addition, the development within the lowlands has affected groundwater recharge, infilled and channelized ǰícǰy’s sacred slough network, and increased surface water runoff, that carries pollutants to what remains of the slough network. Storm and sewage overflow, and waste from houseboats has also impacted parts of the lowland waterways.

“You can even see pictures, old pictures of what they call the North and South Alouette Rivers, you know before the diking ever came in. You know, they used to be just free flowing rivers deeper than they are now. But you know, the influences of settlers wanting to start up farms and everything else, they just drained everything and killed off everything in there.” (K08)

Present day lower sánəsaʔt stáʔləw (Alouette River), 2022 (K. Armour, qícəy First Nation)



## 1.4 Characterizing Cumulative Effects on Water

The flow of sánəsaʔt stáʔləw (Alouette River) and the sloughs has been severely disrupted. The healing properties of the water as well as the strength it gives to everything in the sánəsaʔt (Alouette) has been affected, which has had major consequences for qícəy relations and qícəy people.

### 1.4.1 Indicator - Water Quantity

Given that sánəsaʔt stáʔləw (Alouette River) flow between the pre-Contact period and today has gone from an estimated average annual of 22 CMS, to one of about 2-3 CMS, and given that the hydrology throughout the sánəsaʔt (Alouette) has been completely altered, the magnitude of cumulative effects on this Valued Component is **High**. The geographic extent of the effect is **High**.

### 1.4.2 Indicator - Water Quality

Because water quality in the lowlands has been adversely affected by multiple sources since the pre-Contact time, the effects to water quality throughout the sánəsaʔt (Alouette) is **High**. The waterways of the Pitt Lowlands are considered to have poor water quality because of agricultural and urban runoff. Because this high magnitude effect occurs in the Pitt Lowlands, but not in Alouette Reservoir, the geographic extent of the effect is **Moderate**.

### 1.4.3 Severity of Impacts on qícəy Rights

The following figure and table summarize the effects to the Water VC and severity of impacts to related qícəy Rights.

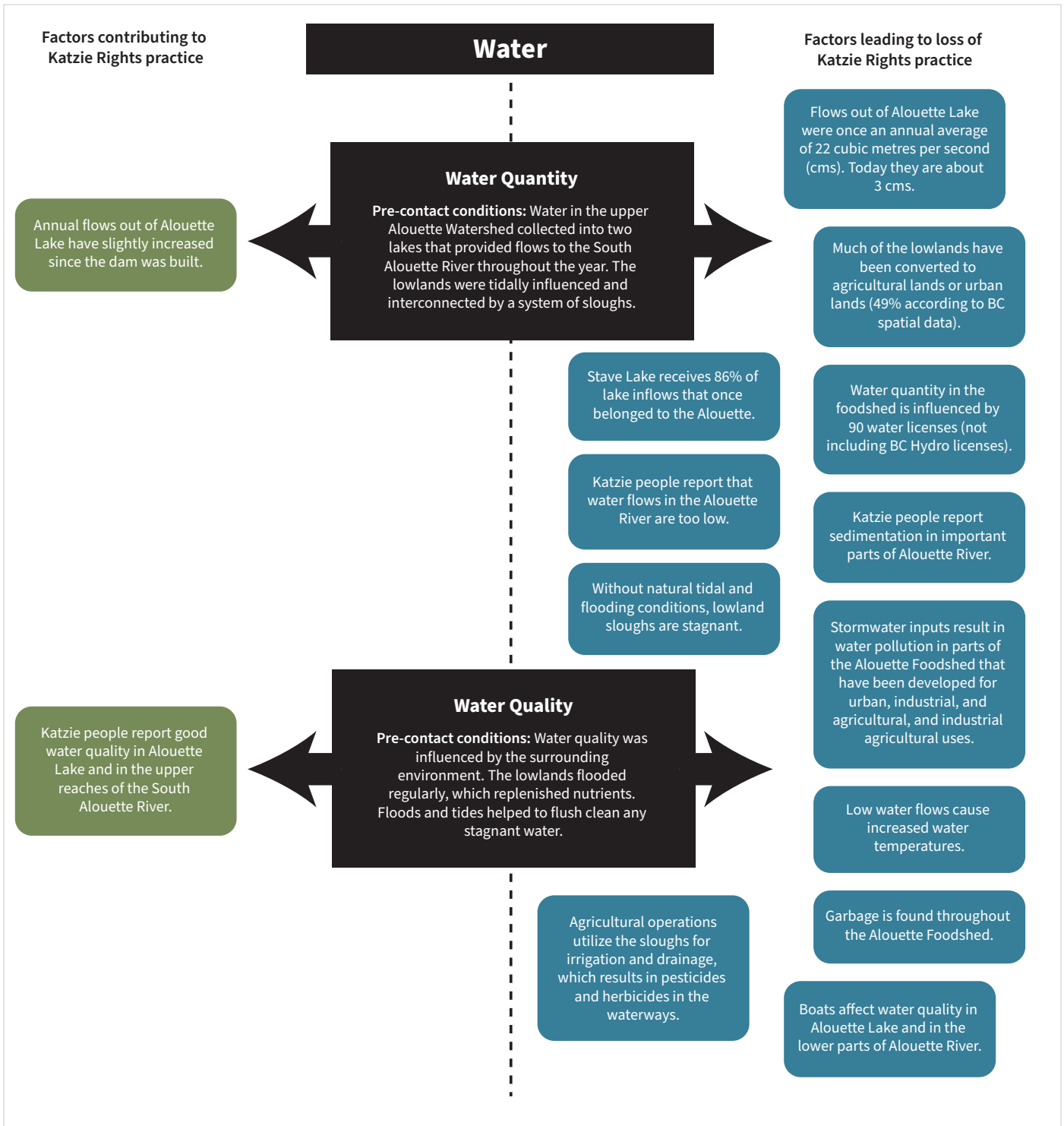


Figure 10: Summary of effects to Water VC indicators since contact.

Table 2. Severity of Impacts on *q̓ic̓əy̓* Rights related to Water.

WATER: <i>q̓ic̓əy̓</i> right to clean, healthy water throughout the <i>sánəsaʔt</i> (Alouette)		Effect Score
<b>1. Water Quantity</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>2. Water Quality</b>		
Magnitude of effects	High	3
Geographic extent of effects	Moderate	2
<b>Severity Score</b>		<b>2.75 (High)</b>

### 1.5 *q̓ic̓əy̓*'s Future Vision

*q̓ic̓əy̓* people identified that it is important to prioritize the health of the waterways within the territory. One way to improve the health of *sánəsaʔt* (Alouette) is to let more water out of the dam and into the river and reintroduce seasonal flows to the river. Another way to improve the health of all the waterways is to limit impervious surfaces so that groundwater can recharge, stop further infill and channelizing of sloughs and open drainage areas, and rewater and reconnect the slough network so that it may flush and flow once again. We must also keep in mind the effects of climate change and create resiliency so that future generations may thrive.

*Pitt Polder Slough Network, 2021*  
(C. Spence, *q̓ic̓əy̓* First Nation)



*Golden Pond within the *sánəsaʔt* (Alouette), 2020*  
(C. Spence, *q̓ic̓əy̓* First Nation)





## 2 FISH AND FISHING

### 2.1 Importance to ǰícǎyǎ

Fish and fishing are central to ǰícǎyǎ way of life and to the exercise of their rights. ǰícǎyǎ sockeye salmon relatives once took human form. Their home was far from the sánəsaʔt (Alouette) but each year they transformed into fish and travelled to the rivers and sloughs in the sánəsaʔt (Alouette). Sockeye are ǰícǎyǎ's soul family.

Fishing was and remains a communal activity for ǰícǎyǎ. Many community members described how important fishing is for connecting to their families and sharing knowledge between generations. For ǰícǎyǎ, being responsible Guardians of the fish family means maintaining a healthy and sustainable food source for the communities and supporting the larger connections and relationships needed for our fish family to thrive.

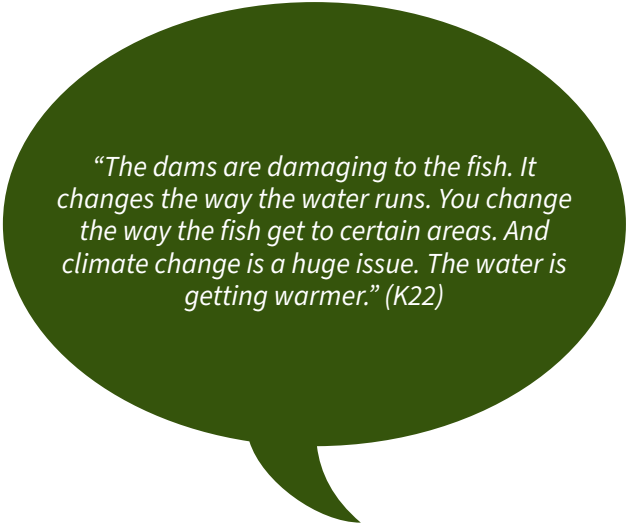
### 2.2 Pre-Contact Conditions

In the pre-Contact period, fish habitat in the sánəsaʔt (Alouette) is considered to have been of highest quality. Diverse types of habitats provided the complexity necessary to support healthy populations of all five species of Pacific salmon plus trout, sturgeon, eulachon, and other native fishes. Diversity of native species within the fish community and genetic diversity within the same species was high, allowing fish populations to adapt to changes in the sánəsaʔt (Alouette), both drastic and subtle. ǰícǎyǎ was able to catch as many fish as were needed to sustain the community and share with guests throughout the year. ǰícǎyǎ had no restrictions on where and when to fish, beyond the customary laws and protocols developed, taught, and adhered to by ǰícǎyǎ people.

### 2.3 Change Over Time

Fish habitat quality and quantity in the sánəsaʔt (Alouette) experienced the most significant impacts in the period immediately following the construction of the Alouette Dam when flows to sánəsaʔt stáʔləw (Alouette River) were diverted and the sockeye Family was trapped behind the dam. Young sockeye relatives were trapped behind the dam, unable to make their migration to the far off land where they lived throughout the year or make their return, severing sacred ǰícǎyǎ family ties. The slough system, once a thriving ecosystem, was disconnected from sánəsaʔt stáʔləw (Alouette River) and is now plagued by water control systems, warm temperatures, a lack of complexity, poor water quality, and stagnant conditions.

More recently some of ǰícǎyǎ sockeye family have been able to return to the ocean through assistance from humans. Each year in the spring, some smolts trapped by the dam are released from the dam spillway and the few who return to the foot of the dam are trapped and trucked around the dam and back to the lake. Chinook, coho, pink, and chum (dog) salmon have all returned to sánəsaʔt stáʔləw (Alouette River), with the help of hatchery and stocking efforts. However, none of these populations are found



*“The dams are damaging to the fish. It changes the way the water runs. You change the way the fish get to certain areas. And climate change is a huge issue. The water is getting warmer.” (K22)*

in the abundance they were in the pre-Contact period. ǰicǎy's relationship to the salmon relatives has been totally disrupted. Salmon protocols have not been followed in the sánəsaʔt (Alouette). ǰicǎy can no longer harvest our fish family from the sánəsaʔt (Alouette) and the future health of ǰicǎy salmon family is very uncertain.

## 2.4 Characterizing Cumulative Effects on Fish and Fishing

### 2.4.1 Fish Habitat Health

The habitat conditions of the sánəsaʔt (Alouette) today are far from the conditions that existed in the pre-Contact period. The magnitude of effects on Fish Habitat Health in the sánəsaʔt (Alouette) is considered **High**. Fish habitat health has been affected throughout the sánəsaʔt (Alouette) since the pre-contact period therefore the geographic extent of the effects is considered **High**.

### 2.4.2 Fish Population Health

While the current state of the sánəsaʔt (Alouette) appears diverse, productive, and with some abundant fish species, especially when compared to the decades immediately following dam construction, it is far more impacted than it was during pre-contact times. The magnitude of effects to fish populations in the sánəsaʔt (Alouette) is therefore **High**. The effects to fish population health occur throughout the sánəsaʔt (Alouette), and there is no area where populations of fish are less than highly impacted when compared to pre-contact times. Therefore, the geographic extent of the effects is assessed as **High**.

### 2.4.3 Severity of Impacts on ǰicǎy Rights

The following figure and tables show effects to the Fish and Fishing VC and the severity of impacts to related ǰicǎy Rights.

*"They better put in the ladder soon. It's only fair to the salmon that they get to where they are instinctively going as a species of the water." (K04)*

Sockeye salmon spawning





Figure 11: Summary of effects to Fish and Fishing VC indicators since contact.

Table 3: Severity of Impacts on ǰǰǰǰ Rights related to Fish and Fishing.

Fish and Fishing		Effect Score
<b>1. Fish Habitat Health</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>2. Fish Population Health</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>3. Fishing Health</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score</b>		<b>3 (High)</b>

## 2.5 ǰǰǰǰ's Future Vision

In discussing the future of fish and fishing, ǰǰǰǰ people frequently focused on the need for a fish ladder or passage for ǰǰǰǰ sockeye family to get in and out of the reservoir under their own power. Priority also needs to be given to habitat preservation, enhancement, and restoration throughout the sánəsaʔt (Alouette), including the rewatering and reconnection of flow into river and slough network. There are many ǰǰǰǰ fishers who need greater access to fish and fishing to feed their families.

Traditional Feast at sánəsaʔt ǰacaʔ (Alouette Lake) of Eulachon harvested from Fraser River, 2017 (R.Leon, ǰǰǰǰ First Nation)




Councilor Rick Bailey, Salmon Restoration site, 2023 (J. Ostroff, WWF)



## 3 PLANTS AND HARVESTING

### 3.1 Importance to ǰícǎy

Plants are a critical part of ǰícǎy well-being. Plants provide food, medicine, technology, and a spiritual connection to ǰícǎy Ancestors. The plants of the sánəsaʔt (Alouette) continue to tie today's generation of ǰícǎy to their Ancestors through culture, healing, and teaching. Culture and traditional teachings are embedded in the practice of plant harvesting, and the opportunity to learn and participate unhindered is vital to the survival of the ǰícǎy way of life.



*“They found the wapato potato garden, which I believe essentially changed history for First Nations people... First Nations people could no longer be looked at as hunter gatherers only. This discovery established that we were actually...farmers.” (K24)*

### 3.2 Pre-Contact Conditions

ǰícǎy plant relatives are a gift from cicəł siʔém (creator), ǰé:l's (khaals), and swanəset. These gifts were nurtured by ǰícǎy Ancestors so that ǰícǎy could care for and share them. ǰícǎy Ancestors engineered materials and waterways in the lowlands to favour the growth of preferred wetland species including wapato and bog cranberry, while the upland forests were abundant with materials used for permanent and temporary dwellings, canoes, tools, clothing, regalia, medicine and more.

Before the settlers came to the sánəsaʔt (Alouette), ǰícǎy managed the diverse ecosystems across the foodshed an intimate understanding of the needs of its plant communities. The guardianship of the sánəsaʔt (Alouette) by ǰícǎy

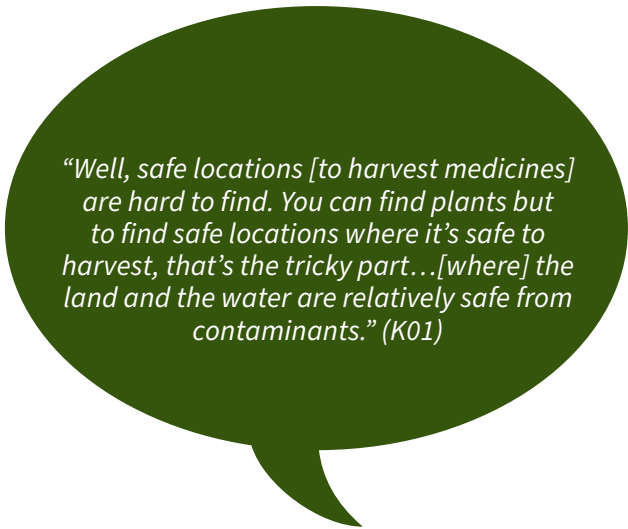
was of utmost importance because the ecosystem reflected an interconnection between the people and the environment.

### 3.3 Change Over Time

Since colonial Contact there has been a significant change in the presence and abundance of native plant communities throughout the sánəsaʔt (Alouette), especially in the lowlands. Notably, the cumulative impacts from diking and flood control infrastructure and the reduction of water throughout the lowlands led to changes in land cover type from wetlands to farmlands resulted in a near total disappearance of plant species, including wapato and bog cranberry.

Today, these critical traditional food resources remain scarce and access to land is limited due to private property establishment. Exclusive ǰícǎy harvesting areas have shrunk throughout the foodshed, and public access areas have grown.

Non-ǰícǎy people have come to the sánəsaʔt (Alouette) and have taken more than what they need. ǰícǎy has Good Host and Good Guest Laws, and while ǰícǎy is committed to being a Good Host, others have not been Good Guests. The sánəsaʔt (Alouette) has lost balance and it's needs have not been prioritized over the needs of individuals.



*“Well, safe locations [to harvest medicines] are hard to find. You can find plants but to find safe locations where it's safe to harvest, that's the tricky part...[where] the land and the water are relatively safe from contaminants.” (K01)*

### 3.4 Characterizing Cumulative Effects on Plant and Harvesting

#### 3.4.1 Presence and abundance of native plant communities

The effects experienced in the lowlands is evidently high, given the extensive land-use and land-cover changes that resulted in the near complete disappearance of both the wapato and the bog cranberry. Meanwhile, the effects experienced in the uplands is moderate, as evidenced by the continued harvesting of native species such as devil’s club and cedar. Therefore, the magnitude of cumulative effects on the presence and abundance of native plant species in the sánəsaʔt (Alouette) is considered **High**, and the geographic extent of effects is **Moderate**.

#### 3.4.2 Access and willingness to harvest plants in preferred areas

Both the lowlands and the uplands of the sánəsaʔt (Alouette) have experienced significant changes to the peaceful, abundant, and safe access to plant harvesting areas. These harvesting areas and increasingly used for recreation, the presence of non-Indigenous individuals and families is interfering with the relationship between q̄icəȳ and the land. The magnitude of the cumulative effects on the access to peaceful, abundant plant harvesting areas in the sánəsaʔt (Alouette) is rated **High**. The effects to access and willingness to harvest plants in preferred areas are extensive and covers the foodshed. Therefore, the geographic extent of the effects of restricted access to Plants and Harvesting is rated **High**.

#### 3.4.3 Severity of Impacts on q̄icəȳ Rights

The following figure and table show effects to the Plants and Harvesting VC and the severity of impacts to related q̄icəȳ Rights.

*Bog Cranberry, 2022 (R. Leon, Katzie First Nation)*



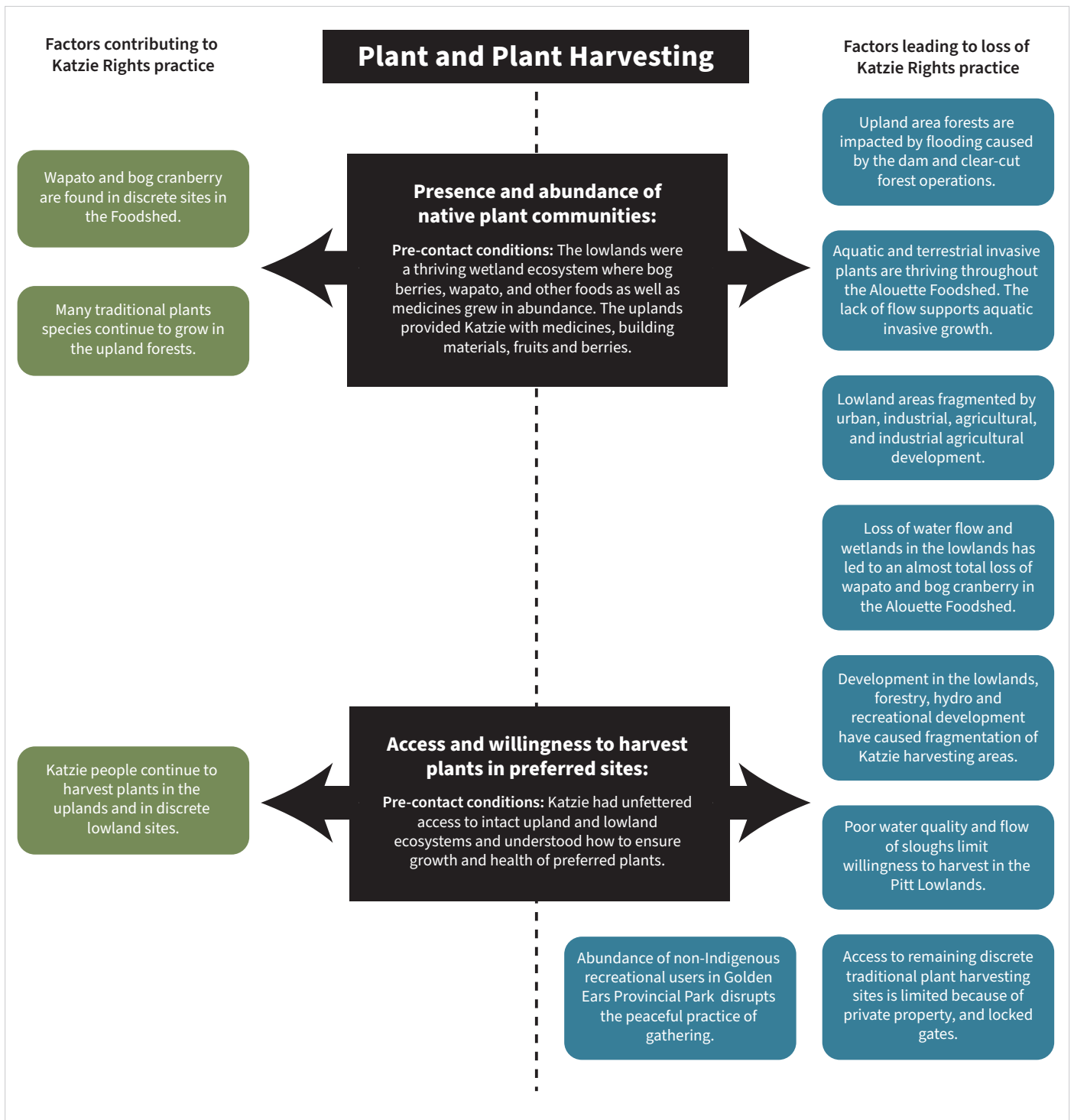


Figure 12: Summary of changes to Plants and Harvesting VC indicators since contact.

Table 4: Severity of Impacts on ᑄᑖᑕᑦᑦ Rights related to Plants and Harvesting

Plant and Harvesting:		Effect Score
<b>1. Presence and abundance of native plant communities</b>		
Magnitude of effects	High	3
Geographic extent of effects	Moderate	2
<b>2. Access and willingness to harvest plants in preferred areas</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score</b>		<b>2.75 (High)</b>

### 3.5 ᑄᑖᑕᑦᑦ’s Future Vision

The needs of ᑄᑖᑕᑦᑦ plant relatives must be elevated above the needs of development and hydro power. ᑄᑖᑕᑦᑦ envision a re-invigoration of their relationship with the plants, of returning to harvesting spaces free of worry and judgement from Guests in the territory, and of building an understanding between ᑄᑖᑕᑦᑦ and colonial organizations that ᑄᑖᑕᑦᑦ and Hosts can be, exist, and harvest in peace, without seeking permission of Guests.

*Tule in lowlands, n.d. (R.Leon, ᑄᑖᑕᑦᑦ First Nation)*



*Devil's Club in uplands, 2022 (R. Leon, Katzie First Nation)*



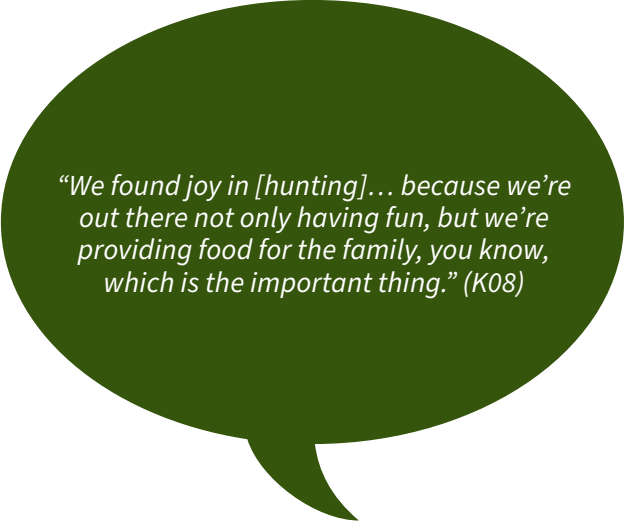


## 4 WILDLIFE, HUNTING, AND TRAPPING

### 4.1 Importance to ǰícǎy

ǰícǎy's furred, hooved, and feathered relatives once freely moved throughout the sánəsaʔt (Alouette). They found unique wetland and upland habitats where they could live in balance with ǰícǎy. Everything in the sánəsaʔt (Alouette) has vitality, or energy, that can be strengthened or weakened. ǰícǎy maintain the respect for wildlife.

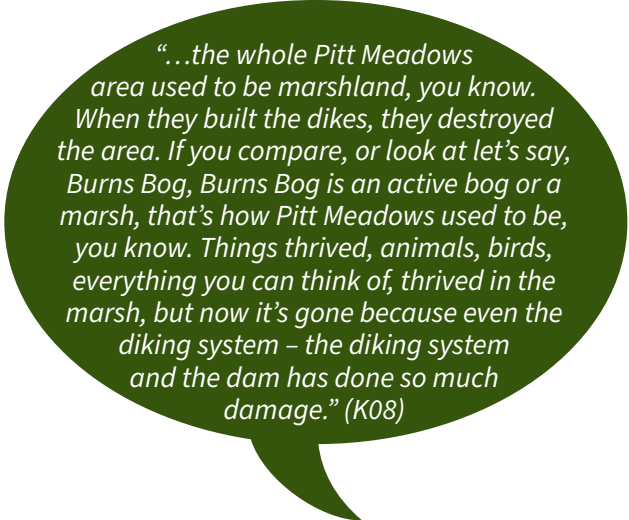
Hunting is an integral part of some ǰícǎy peoples' lives. Hunting served as a crucial means of sustenance and survival for the ǰícǎy Ancestors. The sánəsaʔt (Alouette) was a focal point for hunting various terrestrial animals. Hunting is an important source of individual well-being.



*"We found joy in [hunting]... because we're out there not only having fun, but we're providing food for the family, you know, which is the important thing." (K08)*

### 4.2 Pre-Contact Conditions

ǰícǎy life in pre-contact times revolved around the movement of abundant wildlife populations. ǰícǎy Ancestors were careful to keep the balance of all the fish and animals they lived with. The abundance of wildlife populations and the conditions of wildlife habitats in ǰícǎy territory supported not only ǰícǎy harvesting for sustenance and economy, but also their culture and guardianship structures.



*"...the whole Pitt Meadows area used to be marshland, you know. When they built the dikes, they destroyed the area. If you compare, or look at let's say, Burns Bog, Burns Bog is an active bog or a marsh, that's how Pitt Meadows used to be, you know. Things thrived, animals, birds, everything you can think of, thrived in the marsh, but now it's gone because even the diking system – the diking system and the dam has done so much damage." (K08)*

### 4.3 Change Over Time

Harvesting from the land continues to be a means of collective survival and a way for ǰícǎy people to feed their families without reliance on outside sources. ǰícǎy is responsible to care for the well-being of all relatives within the sánəsaʔt (Alouette). This responsibility has been taken from ǰícǎy and decisions about wildlife habitat has been taken without humility or respect.

Over time, the vitality of many relatives in the sánəsaʔt (Alouette) has been weakened. As settlement progressed, urban development and human population growth in ǰícǎy territory, fueled by hydroelectric power facilities in the foodshed, have resulted in a significant reduction of animal populations in the foodshed.

Elk, deer, waterfowl, and mountain goat populations have been impacted by habitat fragmentation. Agricultural pollution and runoff were identified as causes of the reduction of several animal populations because of impacts to their habitat, including beaver, muskrat, and several bird species. Wildlife populations, and access to hunting have also been reduced in many areas due to excessive recreational use. All these impacts have resulted in a relative scarcity of wildlife in the sánəsaʔt (Alouette) when compared to the pre-Contact era.

## 4.4 Characterizing Cumulative Effects on Wildlife, Hunting, and Trapping

### 4.4.1 Presence and abundance of wildlife species

Elk populations are currently recovering due to conservation measures involving their reintroduction. However, these measures fail to alleviate or compensate for the decades of cumulative loss that ǫǫǫǫ people have experienced and the ongoing pressures on wildlife populations in the foodshed due to increasing urban, agricultural, and industrial development and recreational land use. The magnitude of these impacts is **High**. Even though some animal populations may remain in certain parts of the territory, no part of the territory has been unaffected by population loss. As such, the geographical extent of impacts to animal populations is **High**.

### 4.4.2 Availability of Quality Wildlife Habitat

Insufficient measures have been taken to protect these habitat areas and the combined effects of development and recreational use have resulted in a severe reduction in animal habitats in the sánəsaʔt (Alouette). ǫǫǫǫ people point to the removal and alteration of habitats in the lowlands, as well as deforestation and excessive recreational use in other areas, as having significantly impacted their ability to exercise their hunting and trapping rights. As such, the magnitude of these effects is **High**. Given the complexity and wide-ranging nature of all combined impacts to animal habitats in the foodshed, the geographical extent of these impacts is **High**.

### 4.4.3 ǫǫǫǫ's ability to hunt and trap in preferred areas at preferred times

The combined effects of various colonial policies—small reserve size, the taking up of land for settlement and development, residential schooling, and others—resulted in extensive changes in ǫǫǫǫ peoples' ability to access preferred hunting and trapping areas at preferred times compared to pre-Contact times. When all barriers to ǫǫǫǫ's ability to hunt in preferred areas at preferred times are considered together, the magnitude of these impacts can only be considered **High**. Even in places that are environmentally protected by provincial law, such as the provincial parks, physical barriers and unclear hunting regulations have resulted in significant reductions in access throughout ǫǫǫǫ territory. Considered together, the geographical extent of barriers to ǫǫǫǫ's ability to hunt in preferred areas at preferred times is **High**.

### 4.4.4 Severity of Impacts on ǫǫǫǫ Rights

The following figure and table summarize effects to the Wildlife, Hunting, and Trapping VC and severity of impacts to related ǫǫǫǫ Rights.



Figure 13: Summary of changes to Wildlife, Hunting, and Trapping VC indicators since contact.

Table 5: Severity of Impacts on ǰǰǰǰ Rights related to Wildlife, Hunting, and Trapping.

WILDLIFE, HUNTING, AND TRAPPING: ǰǰǰǰ Rights to access preferred harvesting areas, healthy wildlife, and ability to harvest as much wildlife as needed for consumption and sharing		Effect Score
<b>4. Presence and abundance of wildlife species</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>5. Availability of quality wildlife habitat</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>6. ǰǰǰǰ ability to hunt in preferred areas at preferred times</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score (combined Effect Score averaged over each effects characterization criterion - all weighted the same)</b>		<b>3</b>

## 4.5 ǰǰǰǰ's Future Vision

ǰǰǰǰ's wildlife relatives need to be respected again, and ǰǰǰǰ must have the opportunity to take care of the land and water to allow all relations to thrive again. ǰǰǰǰ has many hunters, and more that want to learn. People describe the need to revitalize hunting practices and the knowledge systems that maintain those practices, but speak of these as visions for the future. These visions seek to overcome barriers that are diverse and extensive, including reduced physical access, altered landscapes and transportation routes, colonial policies, urbanization, agricultural and industrial development, unclear hunting regulations, and harassment.

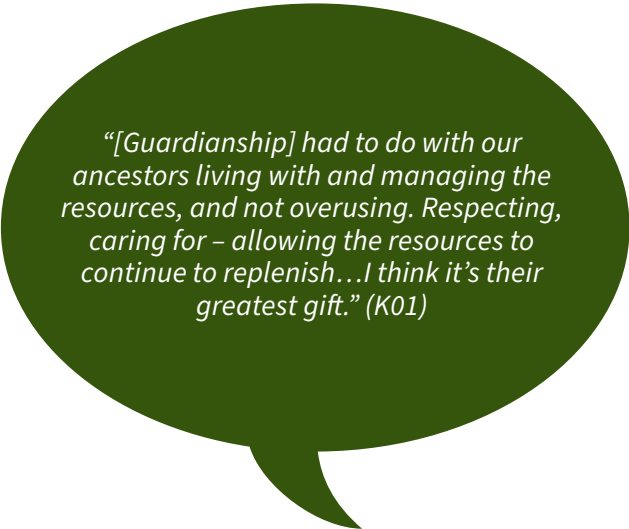
*Elk in ǰǰǰǰ Territory (Raincoast Conservation Foundation)*



## 5 GOVERNANCE AND GUARDIANSHIP

### 5.1 Importance to q̄ic̄əȳ

q̄ic̄əȳ law is the first law and includes instructions received from q̄ic̄əȳ Ancestors cicəł siʔém̄ (creator), ʔé:l's (khaals), and swanəset. q̄ic̄əȳ law helps q̄ic̄əȳ to maintain connection with all relatives. As directed by cicəł siʔém̄, swanəset gave q̄ic̄əȳ responsibility to care for the lands and waters so all relations could thrive. q̄ic̄əȳ remains the hereditary Guardians of the sánəsaʔt (Alouette), accepting responsibility for its vitality and balance.



*"[Guardianship] had to do with our ancestors living with and managing the resources, and not overusing. Respecting, caring for – allowing the resources to continue to replenish...I think it's their greatest gift." (K01)*

### 5.2 Pre-Contact Conditions

In the pre-Contact period, q̄ic̄əȳ lived in alignment with our sacred teachings and laws, and in honoring our reciprocal relationship with our relations, balance was achieved. q̄ic̄əȳ people are taught humility – seeing ourselves as a small part of a much larger whole, that we must attend and be accountable to as hereditary Guardians, and next of Kin caretakers. Over many generations protocols were developed to act with the appropriate intention and respect the limits and vitality of the land and water within the territory, and abundance was shared to respect and strengthen relationship with all q̄ic̄əȳ relations.

### 5.3 Change Over Time

As settlers came into the area, they made resource management decisions based on their limited understanding of the area – seeing it as a place of abundant resources that could be taken without consideration of consequence, or q̄ic̄əȳ's hereditary responsibility as Guardians. Colonization, residential schools that broke generational ties, lack of recognition or understanding of q̄ic̄əȳ law and protocol, resource exploitation, settlement of unceded lands are some of the factors that have taken away q̄ic̄əȳ's ability to fulfill obligations as hereditary Guardians, caretakers and next of Kin within the territory. In 2023 q̄ic̄əȳ started to reclaim this role and is building q̄ic̄əȳ's Guardian team to uphold q̄ic̄əȳ's law, and the responsibilities and relationships key to maintaining balance.

## 5.4 Characterizing Cumulative Effects on Governance and Guardianship

### 5.4.1  capacity for guardianship and monitoring

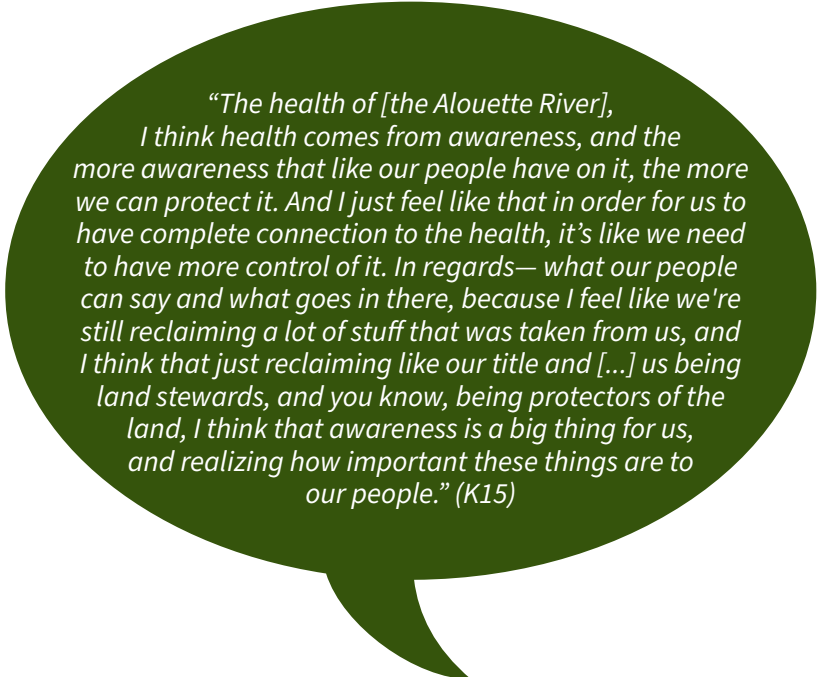
Throughout the entirety of the snsa? (Alouette),  law has been undermined but  people continue to watch over their lands and waters. Because the  community has knowledge to engage in monitoring of the snsa? (Alouette), but they have expressed a need for more training and opportunities that will get more  people involved in the care of the land, water, fish, wildlife and plant life, the magnitude of cumulative effects on the skills and knowledge needed to monitor the snsa? (Alouette) is **Moderate**. The loss of  ability to exercise authority and knowledge occurred across the snsa? (Alouette). The geographic extent of the effect is therefore considered **High**.

### 5.4.2  ability to regulate activities within the snsa? (Alouette)

In a short 200 years, between the establishment of the first fur trade fort in 1827 to the present day,  went from being able to exercise their law throughout  territory to having no control over resource management decisions in their territory. While they are being consulted more as part of regulatory processes, the influence they have over non- government decision-making is highly limited. For this reason, the magnitude of effect for this indicator is **High**. The effects on Governance and Guardianship related to the erosion of  decision-making authority, occur throughout most of the traditional territory so the geographic extent of the effects is **High**.

### 5.4.3 Severity of Impacts on  Rights

The following figure and table summarize effects to the Governance and Guardianship VC and severity of impacts to related  Rights.



*“The health of [the Alouette River], I think health comes from awareness, and the more awareness that like our people have on it, the more we can protect it. And I just feel like that in order for us to have complete connection to the health, it’s like we need to have more control of it. In regards— what our people can say and what goes in there, because I feel like we’re still reclaiming a lot of stuff that was taken from us, and I think that just reclaiming like our title and [...] us being land stewards, and you know, being protectors of the land, I think that awareness is a big thing for us, and realizing how important these things are to our people.” (K15)*

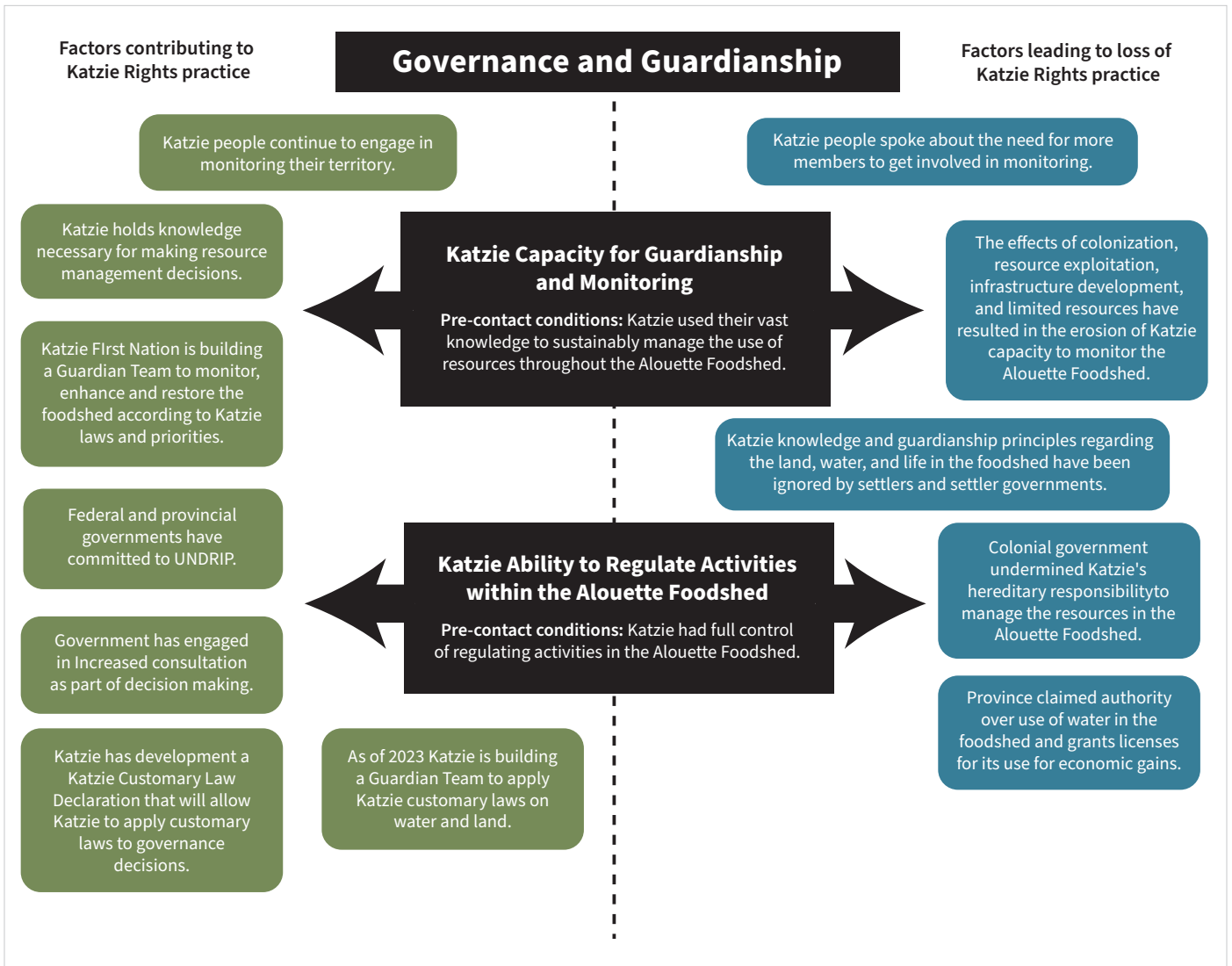


Figure 14: Summary of changes to Governance and Guardianship VC indicators since contact.

Table 6: Severity of Impacts on *q̄ic̄əȳ* Rights related to Governance and Guardianship.

Governance and Guardianship		Effect Score
<b>1. <i>q̄ic̄əȳ</i> capacity for guardianship and monitoring</b>		
Magnitude of effects	Moderate	2
Geographic extent of effects	High	3
<b>2. <i>q̄ic̄əȳ</i> ability to regulate activities within the <i>sánəsaʔt</i> (Alouette)</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score</b>		<b>2.75 (High)</b>

## 5.5 *q̄ic̄əȳ*'s Future Vision

*q̄ic̄əȳ* people described a future where *q̄ic̄əȳ* can exert greater influence and control over their traditional lands and waters and where Indigenous guardianship values guide land use. Importantly, *q̄ic̄əȳ* people envisioned a renewed role for *q̄ic̄əȳ* in the management of their traditional territories, a role that colonization, dispossession, and dislocation have deprived *q̄ic̄əȳ* communities of over the past 150 years.

Sherry Miller in *q̄ic̄əȳ* Territory, 2023  
(Raincoast Conservation Foundation)



Elder Ed Pierre at *q̄ic̄əȳ* channel restoration site, 2023  
(source J. Kidder/O. Cholewa, WWF Canada)





## 6 CONNECTION TO LAND

### 6.1 Importance to ǰícǎyǎ

ǰícǎyǎ law includes Good Host and Good Guest Laws that define the responsibilities for both ǰícǎyǎ as Host and for non-ǰícǎyǎ as Guests. As Good Hosts, ǰícǎyǎ takes care of all relations throughout ǰícǎyǎ territory. When spending time on the land and water they observe the health of the gifts they have been given. Good Guests must ask permission before taking resources and must observe ǰícǎyǎ protocols, so everything remains within balance.

*“I think just knowing that my – our people have been here for, you know, thousands of years and have been able to – to take the same things that we’re taking out of the water today. I think that – that does a lot for me. And... I think to fish the same waters that my ancestors did and see some of the same landmarks that my ancestors had, you know – there’s two generations ago or ten generations ago, some of those same landmarks are still there and I think that shows me like a – connect in this land to them more.” (K19)*

### 6.2 Pre-Contact Conditions

Pre-Contact, ǰícǎyǎ retained full access to all areas of the sánəsaʔt (Alouette) and their movements were unrestricted within its bounds. They maintained permanent settlements throughout the foodshed, notably on the shores of sánəsaʔt and the Fraser River, and established seasonal camps according throughout the foodshed to the rhythms of the seasonal round.

### 6.3 Change Over Time

The guests in the sánəsaʔt (Alouette) have not known, respected, or considered ǰícǎyǎ laws and protocols and have taken without consideration of consequence. ǰícǎyǎ access to private space on the land and water is limited, as many of the areas we once attended to have been overrun. The introduction of property ownership which excludes non-landowners from access and shut ǰícǎyǎ out of substantial portions of the foodshed. Agricultural development, beginning in the mid- 19th century and continuing to the present day, and forestry practices drastically altered the landscape of the sánəsaʔt (Alouette) and established new rules regarding land use and access.

*“Changes to Alouette Lake – I would say is one of the most distressing is just how chaotic and busy it can be. I don’t remember that in my earliest years of my memory of the place, you know. Nowadays it’s disheartening when you want to go up there to a place that is your home and it’s like, okay, the gates are closed because it’s full, the park is at capacity.” (K26)*

### 6.4 Characterizing Cumulative Effects on Connection to Land

#### 6.4.1 Access to, and availability of, peaceful and private areas

The availability of peaceful and private areas in the sánəsaʔt (Alouette), and ǰícǎyǎ peoples’ access to such areas for spending time on the land for temporary periods of time has been drastically reduced in both their availability and accessibility between pre-Contact times and the present day, the magnitude of cumulative effects on this Valued Component is **High**. Throughout the majority of the foodshed the impacts have been extensive; therefore, the geographic extent of effects is **High**.

### 6.4.2 Ability to access land and water in preferred areas in  territory

The ability of  people to access land and water in preferred areas of the s (Alouette) has been drastically impacted by colonization, agricultural and industrial development, and the continued expansion of urban areas. The magnitude of cumulative effects on this Valued Component is **High**. This effect occurs throughout the foodshed; therefore the geographic extent of the effect is **High**.

### 6.4.3 Severity of Impacts on  Rights

The following figure and table summarize effects to the Connection to Land VC and severity of impacts to related  Rights.



*Western Red Cedar, the tree of life in Katzie culture, 2022 (R. Leon, Katzie First Nation)*

*Original  canoe at Parsons Channel 'the slough', early 2000s (R. Leon,  First Nation)*



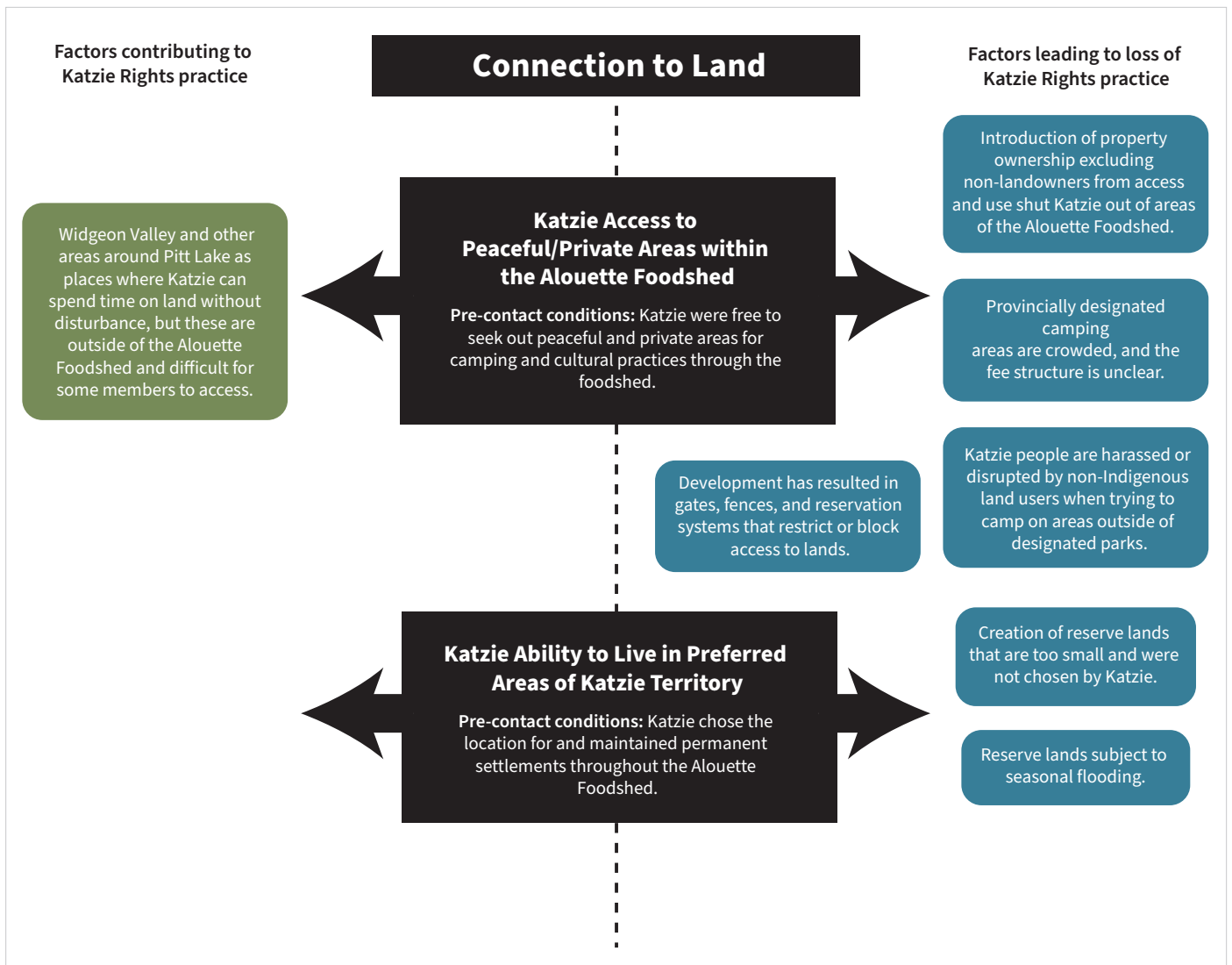


Figure 15: Summary of changes to Connection to Land VC indicators since contact.

Table 7: Severity of Impacts on *q̄ic̄əȳ* Rights related to Connection to Land.

Connection to Land		Effect Score
<b>1. Access to, and availability of, peaceful and private areas</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>2. Ability access preferred areas in <i>q̄ic̄əȳ</i> territory</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score</b>		<b>3 (High)</b>

## 6.5 *q̄ic̄əȳ*'s Future Vision

When considering the future of *q̄ic̄əȳ* on their traditional territory, *q̄ic̄əȳ* people envision better access to their lands and a greater *q̄ic̄əȳ* presence on those lands.

*Sacred species Sandhill Cranes in *q̄ic̄əȳ* Territory, Guardian Spirits in *q̄ic̄əȳ*, 2017 (R.Leon, *q̄ic̄əȳ* First Nation)*



## 7 TRANSPORTATION AND TRADE

### 7.1 Importance to ǰícǎyǎ

ǰícǎyǎ's ability to move effectively and efficiently throughout the sánǎsaʔt (Alouette) is a primary reason for their wealth and power in the coastal area. Access was dependent on sánǎsaʔt stáʔlǎw (Alouette River) and the interconnected network of sloughs that covered the lowlands and provided ǰícǎyǎ with a transportation corridor between the Fraser River and Pitt Lake and Pitt River, and sánǎsaʔt ǰacaʔ (Alouette Lake). ǰícǎyǎ's historic dependence on water-based travel has resulted in a cultural relationship with canoeing, and the relationship with the land and waters while canoeing, that is passed between generations.

### 7.2 Pre-Contact Conditions

ǰícǎyǎ once freely travelled throughout the sánǎsaʔt (Alouette) by water and by foot. This travel allowed ǰícǎyǎ to access the abundance of the foodshed and share with guests. These routes included waterways and trails that connected ǰícǎyǎ to the rich wetland resources of the lowlands, the forest resources of the uplands, and the wildlife resources in the alpine regions. These waterways and trails also connected trading partners to ǰícǎyǎ, who traded with Indigenous groups who had access to ocean resources, and people who came down from inland mountain areas.

*All the developments taking place with the warehousing back here, you know they're filling in ditches and they think it's a ditch, but it's not a dirt ditch. It used to be part of our transportation route for our people, going in canoes, and you know, getting from here to Pitt Lake up the Alouette's and you know, you know, it was like our highway, they would call it." (K08)*

### 7.3 Change Over Time

Today, the route through the sloughs has been destroyed and ǰícǎyǎ are only able to travel by water in disconnected areas of the slough systems and Alouette Reservoir. The 'slough route' was a defining aspect of ǰícǎyǎ life, wealth, and well-being. Its loss is a physical and cultural loss.

*"Every year we had our skipper who started the Pulling Together Canoe Journey for our community. It is very powerful medicine. So we trained at Rocky Point. We trained from April to July to get ready for the canoe journey. So [Personal Name] brought us to Pitt Lake, brought us to Alouette Lake and sometimes at the Rocky Point to practice twice a week. Then we paddled the whole Alouette Lake. That was a great experience for myself and the youth." (K22)*

## 7.4 Characterizing Cumulative Effects on Transportation and Trade

### 7.4.1 Ability to use pre-Contact transportation networks

Because of the loss of the ‘slough route’, which was a most critical travel route for ǰǰǰǰǰ, and the damage that has been done to the remnant sloughs, the ability of ǰǰǰǰǰ people to utilize pre-Contact transportation networks has declined drastically, and the magnitude of effect is **High**. ǰǰǰǰǰ people continue to travel by trail in the areas around Alouette Reservoir and travel by water on Alouette Reservoir is still possible and ǰǰǰǰǰ people regularly do so. For this reason, the geographic extent of effects is **Moderate**.

### 7.4.2 Access to canoes and skills for canoeing

The knowledge and experiences shared through interviews indicate that many people take pride in canoeing and spend time and energy learning and sharing these skills with others. However, many ǰǰǰǰǰ people do not have these skills or access to a canoe. The magnitude of effects on access to canoes and skills for canoeing in the sánəsaʔt (Alouette) is therefore considered to be **Moderate**.

Those who have the skills and knowledge and access to equipment needed for canoeing spend time doing so in many areas throughout the ǰǰǰǰǰ Territory and do so in the Alouette Reservoir. However, for those who do not have access to skills, knowledge, or equipment, they are unable to canoe anywhere in the sánəsaʔt (Alouette). The effect, then, occurs throughout the entire foodshed. Thus, the geographic extent of the effects on access to canoes and skills for canoeing is **High**.

### 7.4.3 An abundance of resources to share or trade

The scarcity of resources in the foodshed indicate that trading and sharing is not well-supported. The effects to abundance of resources to share or trade is **High**. In no part of the foodshed are these important trade goods found in an abundance that would facilitate trade. The geographic extent of effects are **High**.

### 7.4.4 Severity of impacts on ǰǰǰǰǰ rights

The following figure and table show the qualitative and quantitative severity of effects to Transportation and Trade.

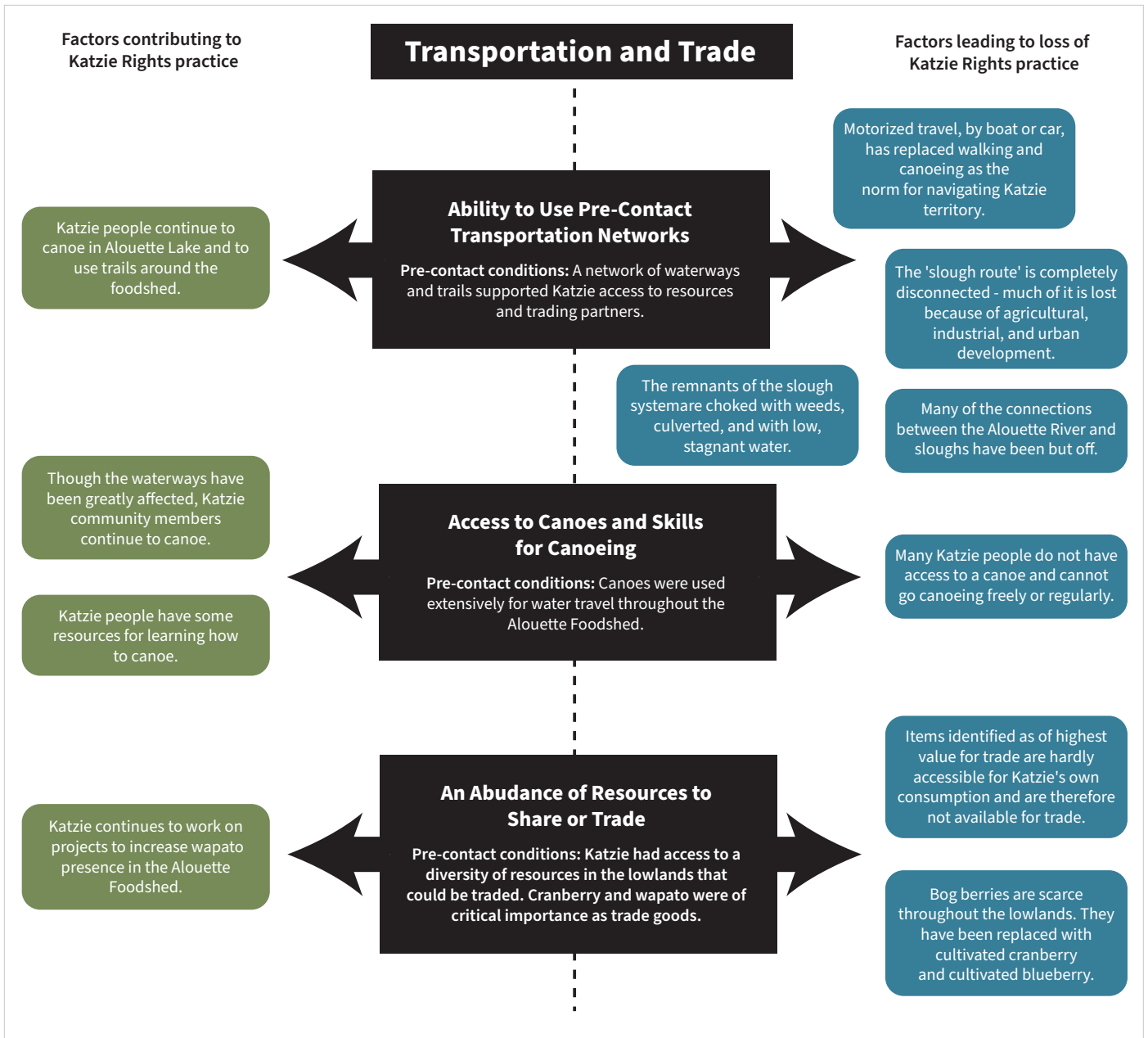


Figure 16: Summary of changes to Transportation and Trade VC indicators since contact.

Table 8: Severity of Impacts on  Rights related to Transportation and Trade.

TRANSPORTATION AND TRADE:  Right to travel throughout the s (Alouette) as desired and to access preferred trade goods.		Effect Score
<b>1. Ability to use pre-Contact transportation networks</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>2. Access to canoes and skills for canoeing</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>3. An abundance of resources to share or trade</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score (combined Effect Score averaged over each effects characterization criterion - all weighted the same)</b>		<b>2.83 (High)</b>

## 7.5 's Future Vision

 people did not share a specific vision about the future for transportation and trade in the s (Alouette), however, through the stories shared, canoeing is an important skill for  people to maintain. It is particularly important that  people have outdoor spaces for on-the-land learning and that  youth have opportunities to engage in  knowledge, which includes knowledge about canoeing.

*Spirit of Katzie II on the s  (Alouette Lake), n.d. ( First Nation)*





## 8 KNOWLEDGE TRANSFER

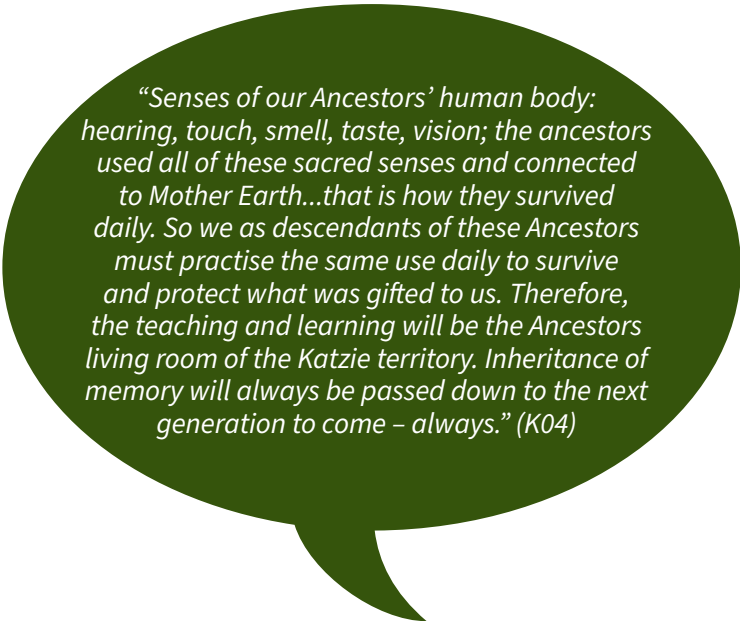
### 8.1 Importance to ǰícǎy

ǰícǎy has an obligation to teach and share about sánəsaʔt (Alouette). The colonial world sees the sánəsaʔt (Alouette) only as resources for taking, and it is ǰícǎy's responsibility to share a deeper understanding of reciprocal relationship with the sánəsaʔt (Alouette). This includes passing knowledge from one ǰícǎy generation to another and includes ǰícǎy sharing knowledge with guests.

Engaging in traditional activities such as harvesting plants, wildlife, and fish is a way to not only learn important skills, but also to learn about what it means to be ǰícǎy. Skills are acquired and knowledge accumulated over years of traditional practice. This type of land-based skill and knowledge, from cultural practices to survival skills, is shared among ǰícǎy people and across generations.

### 8.2 Pre-Contact Conditions

In the pre-Contact time, knowledge - spiritual, ceremonial, and practical - was shared without externally imposed restrictions. ǰícǎy alone determined what knowledge could be shared with ǰícǎy people or with guests, and Knowledge Holders held and guarded the community's collective knowledge. Family-based knowledge transfer was seen in traditional activities like harvesting; for instance, wapato was owned and sustainably managed within families. The sánəsaʔt (Alouette) offered a rich habitat that supported a diverse range of fish, plants, and animals, supporting the transfer of ǰícǎy knowledge concerning harvesting, cultural, and spiritual activities that depended on this diversity and free access to it.



*“Senses of our Ancestors’ human body: hearing, touch, smell, taste, vision; the ancestors used all of these sacred senses and connected to Mother Earth...that is how they survived daily. So we as descendants of these Ancestors must practise the same use daily to survive and protect what was gifted to us. Therefore, the teaching and learning will be the Ancestors living room of the Katzie territory. Inheritance of memory will always be passed down to the next generation to come – always.” (K04)*

### 8.3 Change Over Time

Racist laws disrupted ǰícǎy culture and well-being. This has affected both the body of knowledge and the ability to pass this body of knowledge along. ǰícǎy movement was increasingly restricted post-Contact by the spread of private property and the creation of reserves in the late 1800s. In the 20th century, urbanization, industrialization, and the establishment of parks further diminished the quantity and availability of spaces for ǰícǎy to teach and learn about ǰícǎy way of life, including harvesting practices and cultural tradition. As both development and the activities of competing land users have expanded through the region, remaining spaces for learning and teaching have become increasingly restricted to more remote parts of the Alouette, decreasing their accessibility.

## 8.4 Characterizing Cumulative Effects on Knowledge Transfer

### 8.4.1 Access to safe and respected areas where knowledge can be shared

Given the necessity of safe, respected spaces for knowledge transfer practices, and the drastic and ongoing loss of such spaces in the centuries since the arrival of Europeans in the sánəsaʔt (Alouette), the magnitude of cumulative effects on this VC is **High**. As the effects on this VC can be observed through the greater part of the foodshed, the geographic extent of effects on q̄icəȳ access to safe and respected sites in q̄icəȳ traditional territory is **High**.

### 8.4.2 Availability of water flow, fish, wildlife, and plant populations


The availability of physical resources central to the transfer and maintenance of q̄icəȳ knowledge – plants, animals, fish, and water – has certainly declined since the pre-Contact period. This decline is most pronounced in the availability of fish, wetland plants like bog cranberry and wapato, and the availability and opportunity to hunt and trap have drastically declined since the pre-Contact period. Therefore, the magnitude of cumulative effects on this VC is **High**. q̄icəȳ people have reported being able to harvest plants and some wildlife within certain parts of the foodshed and are able to use Alouette Reservoir to pass on knowledge about canoeing. Because the foodshed can support these knowledge transfer activities in some areas, the geographic extent of effects to the availability of water flow and to fish, animal, and plant populations is **Moderate**.

### 8.4.3 Availability of q̄icəȳ knowledge

Many q̄icəȳ today are working hard to revive and maintain q̄icəȳ knowledge through youth programming, language classes, and sharing the knowledge they hold with all q̄icəȳ people and, where appropriate, with interested guest. However, the disruption of knowledge transfer practices because of racist government policies and the consequent loss of knowledge cannot be overstated nor the enduring impacts minimized. Given the drastic decrease in the availability of q̄icəȳ knowledge related to pre-Contact conditions, the magnitude of cumulative effects on this VC is **High**. Changes to the availability of q̄icəȳ knowledge impacts all q̄icəȳ people throughout the sánəsaʔt (Alouette), therefore the geographic extent of effects on this VC are **High**.

### 8.4.4 Severity of Impacts on q̄icəȳ Rights

The following figure and table summarize effects to the Knowledge Transfer VC and the severity of impacts related q̄icəȳ Rights.



*“I feel like a lot of members want to teach. But they don’t have the opportunity either. Because this is, like – it’s just the access, right. It’s the access to everything... we’re so urbanized here that it – it makes it tough to get to the places I think that we need to get to in order to do that.” (K32)*

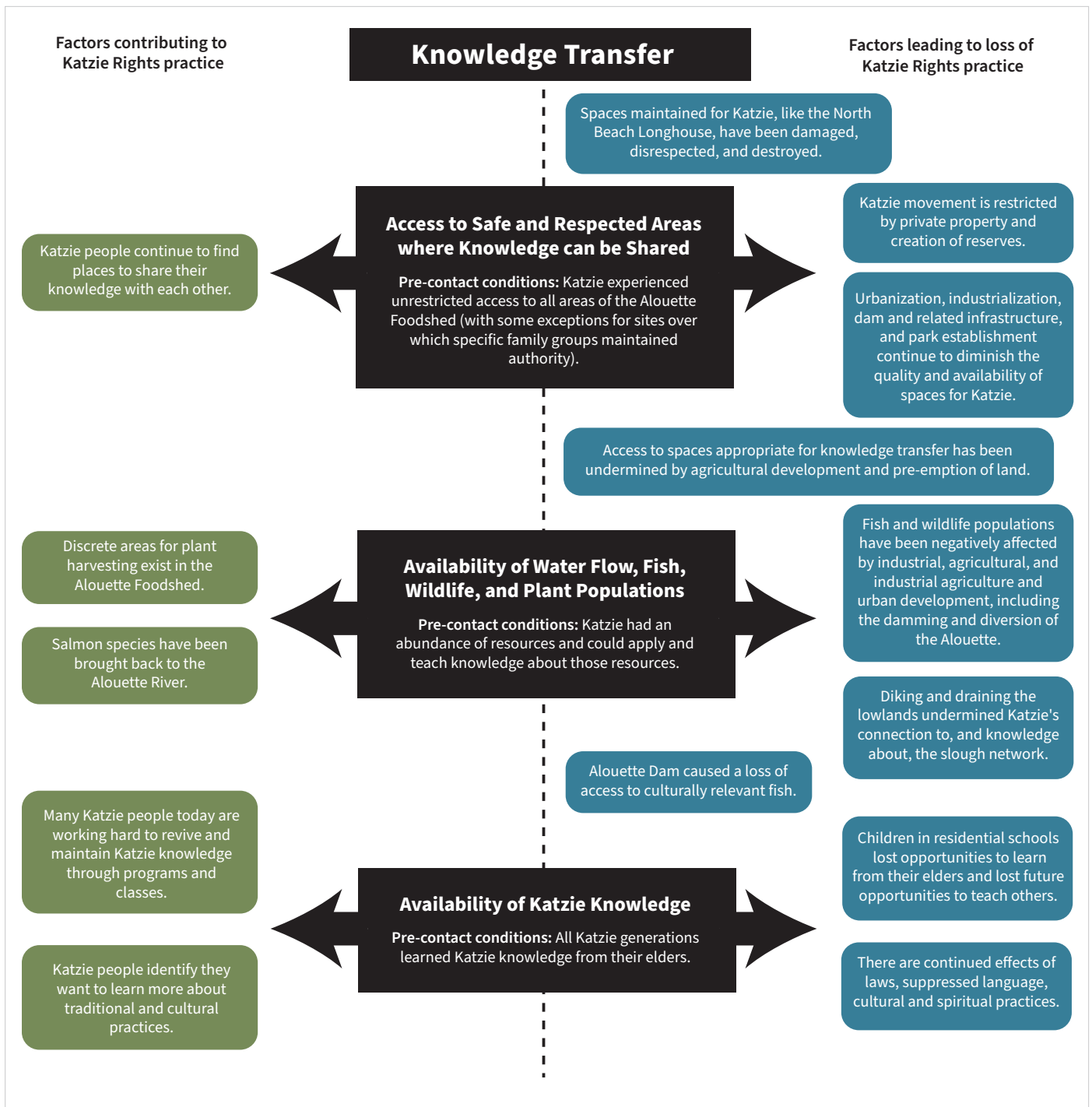


Figure 17: Summary of changes to Knowledge Transfer VC indicators since contact.

Table 9: Severity of Impacts on *q̇iċaẏ* Rights related to Knowledge Transfer.

KNOWLEDGE TRANSFER: <i>q̇iċaẏ</i> Right to access resources necessary for transferring knowledge throughout the <i>ṡaṅasaʔṫ</i> (Alouette)		Effect Score
<b>1. Access to safe and respected areas where knowledge can be shared</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>2. Availability of water flow, fish, wildlife, and plant population</b>		
Magnitude of effects	Moderate	3
Geographic extent of effects	High	2
<b>3. Availability of <i>q̇iċaẏ</i> knowledge</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score</b>		<b>2.83 (High)</b>

## 8.5 *q̇iċaẏ*'s Future Vision

*q̇iċaẏ* people emphasized the need for access to safe, undeveloped spaces to be able to teach and learn, and opportunities to get together and learn from Knowledge Holders. These areas need to be exclusive to *q̇iċaẏ* Knowledge Holders and land users to allow knowledge transfer without any intrusions or interruptions by guests in *q̇iċaẏ* territory.

Roma Leon with grandson RaeLen, harvesting Cranberry, 2018 (M. Leon, *q̇iċaẏ* First Nation)



*“It would be cool to have, like... a land-based school there for our own people. For all ages, not just youth. It’s my age group that needs to learn things too, because we weren’t taught anything in our youth about the history.” (K25)*

## 9 CEREMONY AND SPIRITUAL PRACTICES

### 9.1 Importance to ǰícǎy

Ceremony and Spiritual Practices are critical for ǰícǎy to maintain well-being and connection to the community and ǰícǎy Ancestors. Access to appropriate places for ceremonial bathing is a great need for ǰícǎy . Private areas in the sánəsaʔt (Alouette) that have healthy, flowing water are almost impossible to access. This heightens the disconnect of ǰícǎy community with the gifts provided by ǰícǎy Ancestors cicəʔ siʔém (creator), ǰé:l's (khaals), and swanəset.

*"I always say Alouette Lake is like my church, it's my temple, it's my safe space, it's the place I go to meditate and offer my prayers and it's a place where I go to connect with our ancestors." (K26)*

### 9.2 Pre-Contact Conditions

ǰícǎy gathered in winter for ceremonial and gathering activities. During harvesting season, ceremonies took place to show reciprocity and respect our furred, finned, feathered, hooved and rooted kin, in keeping with our protocols and teachings.

*"Recently, I got a call for some help from one of our dancers that needed a place to go for spiritual cleansing. At one time, you really could just drive to a spot, 100 feet down the trail you can go and have your private spiritual cleansing. But now...with so many people out there, that it's hard to do your sacred stuff." (K31)*

### 9.3 Change Over Time

The pre-emption and development of the land and the consequent exclusion of ǰícǎy from lands; the disruption, destruction, and removal of ancestral sites and belongings; the loss of ǰícǎy people to introduced diseases and the residential school system; the suppression of ǰícǎy language, culture, and spirituality by agents of the Church and Crown; and the ongoing industrial, residential, infrastructure, and institutional development occurring on ǰícǎy lands have all contributed to the loss of ǰícǎy ceremonial and spiritual knowledge.

### 9.4 Characterizing Cumulative Effects on Ceremony and Spiritual Practices

#### 9.4.1 Availability of quiet and private space for spiritual practices and ceremony

The development across the sánəsaʔt (Alouette) has resulted in a significant loss of space for ǰícǎy people to practice ceremony and engage in spiritual practices. ǰícǎy people highlighted the loss of private spaces for spiritual bathing, which is necessary for winter dances as well as for the health and well-being of individuals. The

magnitude of effects is **High**. These effects are felt across the majority of the foodshed, as many people report they have few, if any, private spaces, left for them. The geographic extent of effects is **High**.

#### 9.4.2 Access to and maintenance of sites of ancestral and cultural importance

Key sites of ancestral importance have been pillaged and many ancestral belongings have been taken. Places where longhouses once stood are no longer accessible. The emergence of compliance archaeology has allowed for more consistent documentation and protection of belongings, but many places, such as Sheridan Hill, remain unprotected. Too, archeology and related colonial law for the protection of our cultural belongings fails to recognize q̄ic̄əȳ law and responsibility as next of Kin, and caretakers of q̄ic̄əȳ cultural heritage. The magnitude of effects is **High**. The extent to which sites of ancestral importance varies across the foodshed. The geographic extent is of the effects is **Moderate**.

#### 9.4.3 Access to and availability of resources and knowledge necessary for the practice of ceremony and spirituality

Many members of the q̄ic̄əȳ community are working diligently to restore and share the resources and knowledge necessary for the continued practice of ceremony and spirituality. While many aspects of access and availability are improving, the extent of the change in access to and the availability of the resources and knowledge necessary for the practice of q̄ic̄əȳ ceremony and spirituality has been so extensive and severe that the magnitude of cumulative effects on this Valued Component is considered to be **High**. The lack of appropriate spaces to teach and practice ceremonial and spiritual knowledge occurs throughout most of the s̄an̄əsaʔt̄ (Alouette). This being the case, the geographic extent of impacts to this Valued Component are **High**.

#### 9.4.4 Characterizing Cumulative Effects on Ceremony and Spiritual Practices

The following figure and table summarize effects to the Ceremony and Spiritual Practices VC and severity of impacts to related q̄ic̄əȳ Rights.

*Juvenile White Sturgeon, 2021 (Instream Fisheries Research)*



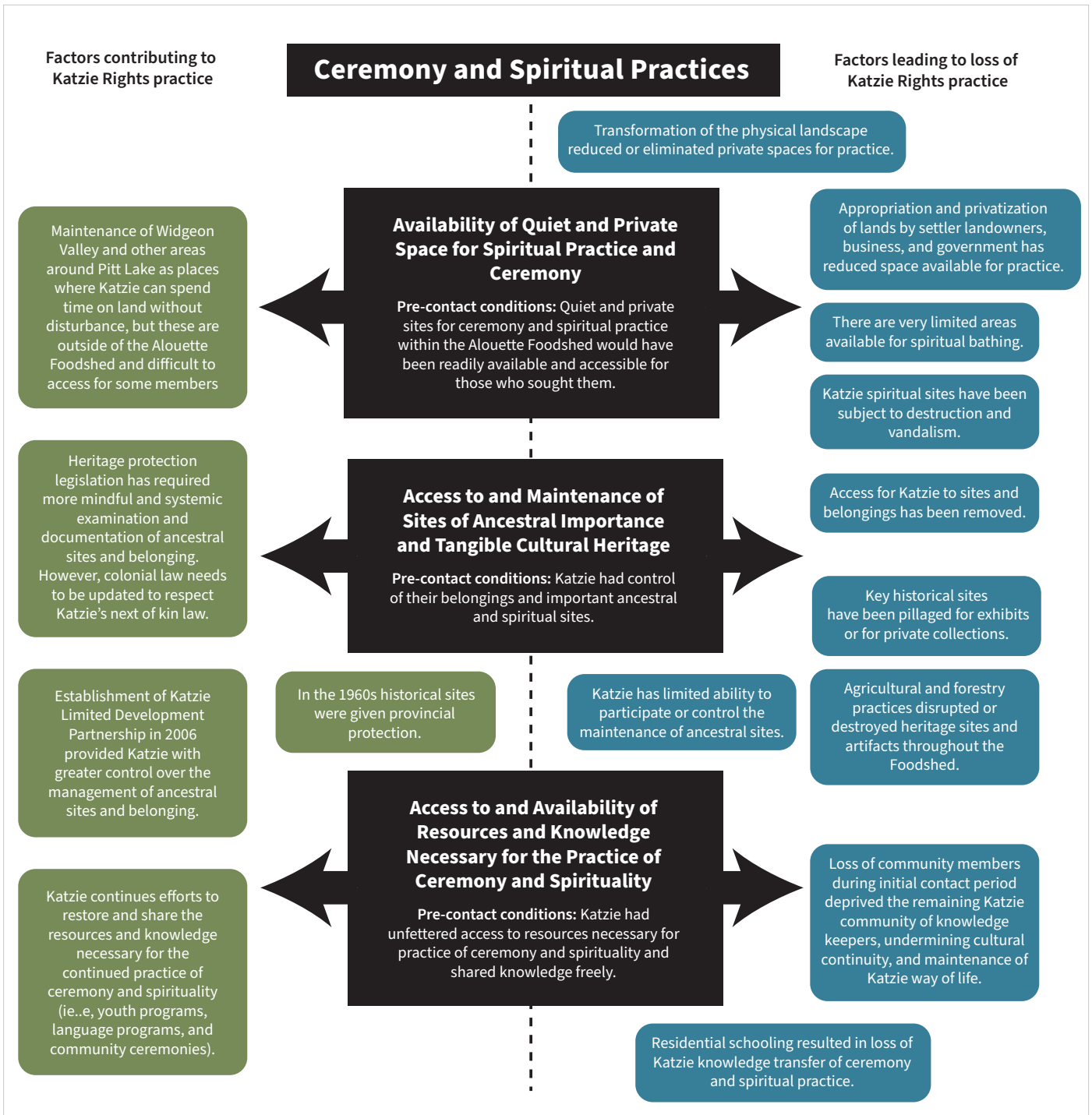


Figure 18: Summary of changes to Ceremony and Spiritual Practice VC indicators since contact.

Table 10: Severity of Impacts on *q̄ic̄əȳ* Rights related to Ceremony and Spiritual Practices.

Ceremony and Spiritual Practice		Effect Score
<b>1. Access to and availability of quiet and private spaces for ceremony and spiritual practice</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>2. Access to, availability of, and maintenance of sites of ancestral importance and tangible cultural heritage</b>		
Magnitude of effects	High	3
Geographic extent of effects	Moderate	2
<b>3. Access to availability of resources and knowledge necessary for ceremony and spiritual practice</b>		
Magnitude of effects	High	3
Geographic extent of effects	High	3
<b>Severity Score (combined Effect Score averaged over each effects characterization criterion - all weighted the same)</b>		<b>2.8 (High)</b>

## 9.5 *q̄ic̄əȳ*'s Future Vision

*q̄ic̄əȳ* people require accessibility and privacy to be able to practice certain elements of their spirituality on their land. Culturally important places like Sheridan Hill need to be protected and preserved for teaching and ceremonies. More gatherings in general would affirm *q̄ic̄əȳ*'s sense of place as well as their sense of interconnectedness with the lands they have been inhabiting for thousands of years.

*q̄ic̄əȳ* longhouse at *sánəsaʔt̄ x̄ acaʔ* (Alouette Lake) prior to it being vandalized and burned, 2001 (R.Leon, *q̄ic̄əȳ* First Nation)





# Conclusion

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## 1 SUMMARY OF SEVERITY SCORES

The Study identifies impacts that have occurred to ǰícǎy ability to exercise rights since the time that settlers started changing the foodshed. A significant factor in these impacts is the BC Hydro infrastructure within the sánəsaʔt (Alouette). The most obvious and direct effects are the loss of life giving water to the sánəsaʔt (Alouette), the subsequent effects to fish and fish habitat from both the loss of water, and the barrier to fish passage into sánəsaʔt ǰacaʔ (Alouette Lake). When the life giving water of the sánəsaʔt (Alouette) was dam and diverted to Stave Lake, and used to create electricity, the entire foodshed changed. Reliable electricity brought development, which brought people. The lowlands went from a tidal, complex ecosystem that supported a diversity of plants, waterfowl, animals, and fish, to extensive agricultural fields. The agricultural development further affected the flow in the foodshed by manipulating the water quantity within the sloughs that had not been erased from the landscape.

The claiming of water rights for electricity broke ǰícǎy laws and protocols and continues to undermine the ǰícǎy Right to make decisions on the wellbeing of ǰícǎy Ancestral lands and hereditary obligations at the rightful Guardians. Furthermore, there is an extreme scarcity of places within the sánəsaʔt (Alouette) that are private, that allow ǰícǎy people to harvest in peace, or conduct ceremony, or just be on the land. Quiet places are quiet because they are gated and therefore difficult for ǰícǎy people to access. Other undeveloped places are frequented by guests in ǰícǎy territory who disrupt, disturb, and sometimes threaten ǰícǎy people. While ǰícǎy people continue to practice their Rights in the sánəsaʔt (Alouette), all ǰícǎy Rights have been impacted severely by BC Hydro operations and the development of its facilitates. The figure below provides all Severity Scores for ǰícǎy Rights related to each VC.

These Severity Scores show the severity of impacts on q̄ic̄aȳ Rights at the time the Study was undertaken. The Outcomes and Actions that follow will help improve conditions of VCs throughout the foodshed and therefore, help to reduce the severity of impacts on q̄ic̄aȳ Rights over time.

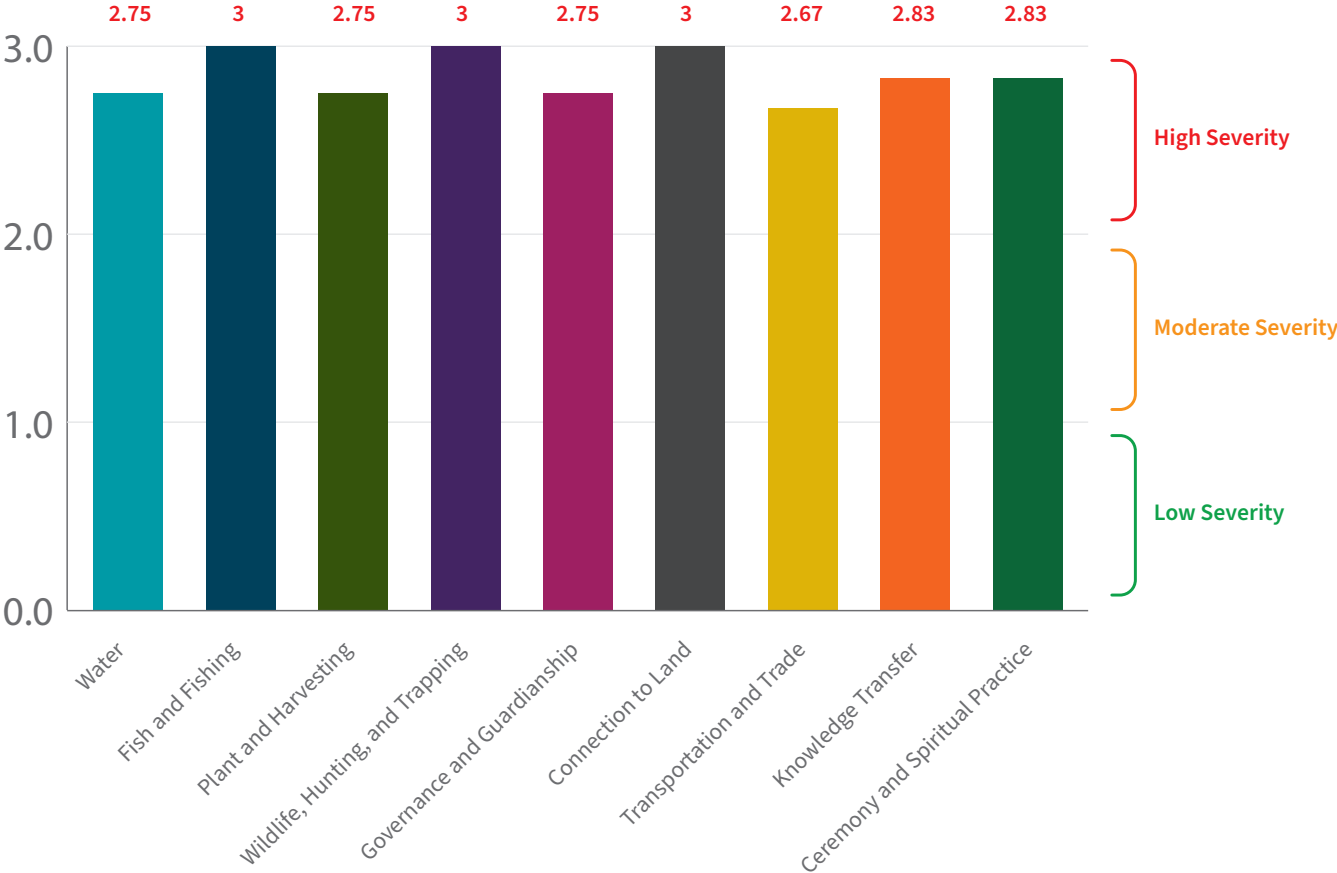


Figure 19: Severity of Impacts to Rights Related to each VC.

## 2 OUTCOMES & ACTIONS

This section summarizes outcomes and actions to improve conditions for ǰícǎy practice of rights within the foodshed. Activities within the foodshed must be considered holistically by ǰícǎy, and collaboratively with others, respective of ǰícǎy law, and the ǰícǎy's Declaration on the life giving water of the sánǎsaʔt (Alouette).

Some of the outcomes and actions outlined below refers to the sánǎsaʔt (Alouette) Working Group (the Working Group), that ǰícǎy intends to host starting in Fall 2024 to advance outcomes and actions collaboratively where necessary or appropriate. Other outcomes and actions will be advanced directly between ǰícǎy and guest in the sánǎsaʔt (Alouette), including BC Hydro. Guests invited to participate in the Working Group include Fisheries and Oceans Canada, Province of British Columbia, BC Hydro, City of Maple Ridge, City of Pitt Meadows, and the Alouette River Management Society (ARMS). ǰícǎy intends to convene the Working Group table in Fall 2024.

### 1. Water Balance Model

To ǰícǎy, water is a sacred living being – a relative we cannot live without. Water is the matriarch that provides life for all life. Water is a living force whose purpose is to flow. This flow nourishes the ǰícǎy way of life and all our furred, finned, hooved, rooted, and feathered relatives in the sánǎsaʔt (Alouette).

The flow of the sánǎsaʔt (Alouette) has been severely disrupted, and the healing properties of the water, and the vitality it gives to everything has been affected, which has had major consequences for ǰícǎy relations and ǰícǎy people.

We must work together to rewater and restore the sánǎsaʔt stáʔlǎw (Alouette River) and the ancient sloughs and channels it once fed before it was dammed and diverted to Stave Lake. We must work together and bring water balance back to the sánǎsaʔt (Alouette). We must be guided in ǰícǎy protocols to attend to the needs of our land and water overtime respective of ǰícǎy's Living Law and Natural Law, so that future generations may thrive.

ǰícǎy invites members of the Working Group to bring together available information and modeling to consider all water sources, flows, and extractions within the sánǎsaʔt (Alouette). This includes but is not limited to water inflow and outflow by source in and out of Alouette Reservoir and BC Hydro operational and flood modeling information, local and provincial surface and ground water data and flood modeling information, inventory of all licensed and known unlicensed water diversions or extractions within the foodshed.

As ǰícǎy has limited capacity currently, the Province of British Columbia is encouraged to lead this work, in collaboration with Working Group members, and in accordance with ǰícǎy law, as guided by ǰícǎy. This is to build on the information gathered through the Study and is intended to guide decision making on safe and adequate seasonal flows that are needed to restore vitality to the sánǎsaʔt (Alouette) now, and into the future.

The assessment will also guide decisions to maintain adequate reservoir levels to support fish passage of ǰícǎy's sockeye family both in and out of in sánǎsaʔt ǰǎcaʔ (Alouette Lake), and to identify variable seasonal flows from sánǎsaʔt ǰǎcaʔ (Alouette Lake) to sánǎsaʔt stáʔlǎw (Alouette River), as set out below.

The assessment is intended to be updated regularly, to respond to the changing conditions and needs of the sánəsaʔt (Alouette) and ǰícəy's kin overtime, and to ensure that ǰícəy may uphold obligations to maintain balance, in keeping with ǰícəy law.

## 2. Rewatering sánəsaʔt stáʔləw (Alouette River) with seasonal flows

The purpose of the life giving waters of the sánəsaʔt (Alouette) is to flow, and this purpose must be reinstated. The flow to sánəsaʔt stáʔləw (Alouette River) flushed with the seasons, until flows were dammed and diverted to Stave Lake, without ǰícəy consent. Some of the flows to Stave Lake are for power generation, some are for flood relief, all have taken vitality from the sánəsaʔt (Alouette), and balance must be restored.

As identified above, ǰícəy recommends that the water balance assessment is used to collaboratively identify the seasonal flow needs of the sánəsaʔt stáʔləw (Alouette River) and its tributaries, and should include future flow contributions that fish passage will add, once in place.


As it is BC Hydro's intention to replace the conservation flow pipe that connects sánəsaʔt ǰacaʔ (Alouette Lake) with sánəsaʔt stáʔləw (Alouette River), this sacred connection must be built in a way that accommodates, and does not foreclose, variable, seasonal flows to the sánəsaʔt stáʔləw (Alouette River) and its tributaries, now and into the future, and as may be identified by the water balance assessment.

BC Hydro and ǰícəy must work together to ensure each of BC Hydro's projects and decisions move towards a future where adequate flow levels nourish and support the sánəsaʔt stáʔləw (Alouette River).

Accommodating a wider variation of flows through the conservation flow pipe replacement project will also provide additional capacity to draw down the reservoir when needed to mitigate flood risks and create resiliency as the impacts of climate change become more frequent and severe. This must also be considered.

## 3. Fish Passage to and from sánəsaʔt ǰacaʔ (Alouette Lake)

The sockeye are ǰícəy's blood relatives, from far away and who transform into fish once a year, when we welcomed them home. This stopped 100 years ago, when the Alouette dam blocked their return. Many of ǰícəy's finned relatives across the foodshed have suffered. While all ǰícəy's fish family would benefit if access to the Upper foodshed was restored, ǰícəy's sockeye family requires this, and for them and any co-migrators, in and out migration to and from sánəsaʔt ǰacaʔ (Alouette Lake), as creator intended. As it is BC Hydro's intention to restore fish passage, this must be prioritized for sockeye, and further consideration on the feasibility of a fish ladder or fish passage that allows sockeye to get in and out of sánəsaʔt ǰacaʔ (Alouette Lake) in keeping with their seasonal life cycle needs and under their own power is needed. Fish passage should be considered to the east or west of the Alouette dam, may require changes to operations, and a better understanding of the footprint of the dam, outside of which fish passage can be safely built.



*"They better put in the ladder soon it's only fair to the salmon that they get to where they are instinctively going as a species of the water." (K04)*

*“I would like to see future generations have the opportunity to use Alouette Lake and Alouette River the same way every single Katzie generation that has ever existed have used those waterways.” (K26)*

#### 4. sánəsaʔt stáʔləw (Alouette River) Foodshed Guardianship & Caretaking

In establishing the ǰícəyʔ Guardian Program in 2023, ǰícəyʔ is re-claiming hereditary obligations as Guardian of the land and waters of ǰícəyʔ territory, for the benefit of all ǰícəyʔ’s relations including finned, furred, feathered, rooted and hooved kin, and future generations.

Building on the findings of the Study, following a two-eyed seeing approach, Working Group members are asked to consider how efforts to monitor, enhance, and restore the sánəsaʔt (Alouette), and any related decision making, can be informed and led by ǰícəyʔ Guardian’s, and consider the following:

- Avoiding and offsetting for the impacts to fish and fish habitat from BC Hydro Facilities, operations and activities, and the impacts of other Guests ǰícəyʔ territory.
- Continued mapping of the pre-contact slough network that was started with the Study, to guide future restoration and enhancement work.
- Build on the Study findings to map remaining sloughs, streams, ground water sources, wetlands, bogs, and open drainage areas within the sánəsaʔt (Alouette).

- Bring together existing information on water quality and quality in the sánəsaʔt (Alouette), and expand monitoring capacity with ǰícəyʔ Guardians and equipment including new water monitoring stations where needed.
- Protection, restoration, and rewatering of the waterways (ditches, streams, channels, sloughs etc.), wetlands, and bogs for the benefit of all ǰícəyʔ relations.
- Invasive species monitoring and management throughout the sánəsaʔt (Alouette) and the return of flush and flow to the lowlands to bring vitality back to this network and limit the stagnate conditions under which invasive species thrive.
- Fish passage between sánəsaʔt ǰacaʔ (Alouette Lake) and sánəsaʔt stáʔləw (Alouette River) for ǰícəyʔ sockeye Family and any co-migrators, and opportunities to improve habitat quality and access in the lowlands for all ǰícəyʔ fish family.
- The short and long term impacts of hatchery fish on the well-being of ǰícəyʔ’s fish family and if it is appropriate to maintain or expand these practices within the sánəsaʔt (Alouette).
- Ways to improve diversity and conditions for ǰícəyʔ fish family within the reservoir, and those who utilize the habitat in the tributaries above the reservoir.
- Ongoing and regular monitoring of ǰícəyʔ’s fish family that may be entrained to Stave Lake so long as sánəsaʔt (Alouette) water may continue to flow in this direction. In keeping with ǰícəyʔ’s Next of Kin Laws, ǰícəyʔ led caretaking practices and protocols if ǰícəyʔ’s Ancestors, their belongings, or the sacred land where they rest are at risk of being disturbed.

BC Hydro and other guests will contribute to the development and implementation of this work, that will respect ǰícəyʔ’s Law of Limits. The Law of

Limits is to sustain the health of the territory, put in place by ǰícǎy Ancestors. ǰícǎy law allows ǰícǎy those who ignore these limits, and in extreme circumstances when acts of repatriation is not forthcoming from the accountable, the offending party can be banished from the territory, and any further requests to enter can be denied.

Parties will decide if existing plans, including Fish and Wildlife Compensation Program Planning, and BC Hydro led fish restoration plans need to be updated to reflect these and other ǰícǎy priorities, or if a ǰícǎy led plan needs to be developed to replace other plans, or both.

## 5. Access and Space for Land and Waters

Guests within the foodshed must respect ǰícǎy's right to harvest, hunt, fish, and undertake private spiritual and ceremonial practices within the Territory, and guests must also work with ǰícǎy to protect spaces within the sánəsaʔt (Alouette) for ǰícǎy to exercise these rights. Guests will respect that not all protocols are to be shared outside of ǰícǎy and will respect ǰícǎy's privacy, where necessary, as to why areas may be protected. Guests are accountable to ǰícǎy law and accept that choosing to ignore protocols has consequences in ǰícǎy law.

Guests will also work with ǰícǎy to find time within the seasonal round for the land and waters of the sánəsaʔt (Alouette) to rest, and nourish our finned, furred, feathered, rooted, and hooved relatives away without interruption. Guests are encouraged to learn about ǰícǎy Host and Guest Law and Protocols, and respect that this need for space comes before the needs of guests choosing to recreate.

Guests, including BC Hydro, will work with ǰícǎy to remove barriers including gates and recreation use that infringe on ǰícǎy rights, and provide access to places within the sánəsaʔt (Alouette) for ǰícǎy to hunt, fish, harvest, and undertake private spiritual and ceremonial practices.

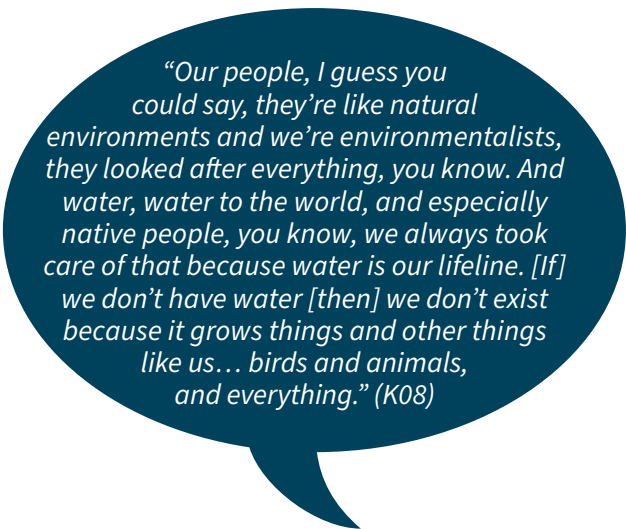
ǰícǎy needs space for families to share teachings within the sánəsaʔt (Alouette), this is how ǰícǎy culture grows and thrives across generations.

Support for land based learning programs, medicine workshops, harvesting meat and hide processing, fishing, trapping, language workshops, Long house teachings and Protocols, canoeing and ceremony within the sánəsaʔt (Alouette) is needed.

## 6. Wealth

ǰícǎy define wealth as our ability to share the gifts of abundance provided to us by cicəʔ siʔém (creator), ǰé:l's (khaals), and swanəset. Sometimes wealth is shared in material form, and sometimes it is shared through other means, including water balance and fish passage. Wealth is always meant to be shared. The True act of sharing requires a certain degree of sacrifice, and acts of true sharing strengthen relationships with all our relations – this is ǰícǎy Law of Wealth.

The gifts of abundance that the life giving waters of the sanəsaʔt (Alouette) brings to ǰícǎy and all our relations, has been taken and impacted without consent. In accordance with ǰícǎy law and protocols, BC Hydro and ǰícǎy need to work together to identify how the gifts of abundance in the sanəsaʔt (Alouette) may be shared. This includes means of restoring levels of abundance for ǰícǎy's finned, furred, feathered, rooted and hooved kin and the life giving waters of our matriarch that feeds them, and ensuring this abundance can be shared with future generations.



*“Our people, I guess you could say, they're like natural environments and we're environmentalists, they looked after everything, you know. And water, water to the world, and especially native people, you know, we always took care of that because water is our lifeline. [If] we don't have water [then] we don't exist because it grows things and other things like us... birds and animals, and everything.” (K08)*

## CITATIONS

- Boyle, C. A. 1997. "Changes in Land Cover and Subsequent Effects on Lower Fraser Basin Ecosystems from 1827 to 1990." *Environmental Management* 21 (2): 185–96. <https://doi.org/10.1007/s002679900017>.
- Collins, John Eric. 1975a. "The Reclamation of Pitt Meadows." Master's thesis, Vancouver, B.C.: Simon Fraser University.
- Jenness, Diamond. 1955a. "The Faith of a Coast Salish Indian." In , edited by Wilson Duff, 92. *Anthropology in British Columbia, Memoir No. 3*. Victoria, B.C.: British Columbia Provincial Museum.
- ḡičəy̓ First Nation. 2017. "Eco-Cultural Restoration in ḡičəy̓ Traditional Territory." ḡičəy̓ Territory, BC, Canada.
- ḡičəy̓ First Nation. 2020. "ḡičəy̓ First Nation Environmental Management Plan. Part 1: Management Framework." Version 1. B.C. <https://ḡičəy̓.ca/wp-content/uploads/2022/02/ḡičəy̓-EMP-Part-1-Environmental-Management-Framework-FINAL-compiled.pdf>.
- ḡičəy̓ First Nation. 2022b. "Θέθqəł (Widgeon Creek) A ḡičəy̓ Cultural Keystone Place: An Eco-Cultural Study of Metro Vancouver's Area of Interest."
- ḡičəy̓ Land Use, Occupancy, and Impact Assessment Study Team [KLUOIAST]. 2004. "ḡičəy̓ Land Use Occupancy and Impact Assessment - Abernathy Connector." Traditional Land Use. Submitted to Greater Vancouver Transportation Authority.
- Kew, M. 2004. "First Towns of the Fraser Estuary: A Brief History of Fraser River Halkomelem Society." In *Fraser River Delta, British Columbia: Issues of an Urban Estuary*, 49–56. Bulletin 567. Ottawa, ON: Geological Survey of Canada.
- Lyons, Natasha, Tanja Hoffmann, Debbie Miller, Andrew Martindale, Kenneth M. Ames, and Michael Blake. 2021. "Were the Ancient Coast Salish Farmers? A Story of Origins." *American Antiquity* 86 (3): 504–25. <https://doi.org/10.1017/aaq.2020.115>.
- Sarna-Wojcicki, Daniel, Jennifer Sowerwine, and Lisa Hillman. 2019. "Decentering Watersheds and Decolonizing Watershed Governance: Towards an Ecocultural Politics of Scale in the Klamath Basin." *Water Alternatives, An ecocultural politics of scale in the Klamath Basin*, 12 (1): 241–66.