

INTEGRATED CULTURAL ASSESSMENT FOR ROBERTS BANK TERMINAL 2

July 21 2020

PREPARED BY:
STÓ:LŌ RESEARCH
AND RESOURCE
MANAGEMENT
CENTRE

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This integrated cultural assessment (ICA) represents the position of fifteen Stó:lō First Nations including: Aitchelitz, Chawathil, Cheam, Kwaw Kwaw Apilt, Scowlitz, Shxwà:y Village, Skawahlook, Skowkale, Skwah, Soowahlie, Squiala, Sumas, Tzeachten, Yakweakwoose, and Yale.

The work conducted for this project is not exhaustive and the information presented in this report cannot be considered comprehensive given the large scope of this project, limiting factors including the necessary consideration of Stó:lō customary intellectual property protocols treating cultural knowledge that is private and exempt from the public realm and Freedom of Information Act.

The ICA and its content do not constitute consultation with any Stó:lō First Nation. This ICA serves only to provide technical information in support of decision-making by the communities endorsing this work, the Vancouver Port Authority, and the Impact Assessment Agency of Canada. The ICA, including any element of its development, does not fulfill the consultation requirements of any federal or provincial agency or entity with delegated consultative and/or decision-making authority.

Nothing in this report is intended to affect the exercise or scope of or justify any infringement of Stó:lō Aboriginal rights, nor shall anything in this report be interpreted as affecting the legal relationship between parties. This report, and information shared as a result of it, are without prejudice to any legal positions that have been taken or may be taken by either of the parties in any court proceedings, process or otherwise or any treaty or other negotiations, and shall not be construed as an admission of fact or liability in any such proceedings, process or negotiations.

1 INTRODUCTION

Intended to ensure that Canada has the ability to deliver on trade commitments and ambitions, a new marine container terminal on Canada's west coast, Roberts Bank Terminal 2, has been proposed. Since 2013 the project, led by the Vancouver Fraser Port Authority, has been undergoing a federal environmental review. Under the *Canadian Environmental Assessment Act, 2012*, the Minister of Environment and Climate Change appointed an independent review panel in 2016 to lead the assessment.

A consultation program which includes 46 Indigenous groups has been undertaken by the port authority. This program will be in place for the duration of the federal review and permitting of the project and will continue throughout construction and operation should the project proceed. Environmental effects of the project, marine shipping associated with the project, proposed mitigation, follow-up programs, and a legacy benefit fund for projects of importance to Indigenous groups are all topics that will be included. In addition, mutually beneficial agreements with Indigenous groups are being negotiated by the port authority. Consultation with Indigenous groups relative to the project is also being carried out by the federal government.

In August 2019, following the close of a six-week public hearing, the environmental assessment review phase concluded. The independent review panel completed their final Federal Review Panel Report, submitted to the Minister of Climate Change on March 27, 2020, which included information gathered from the environmental assessment process, and evaluated what they heard.

The recommendations of this report are now being reviewed by the minister and a decision about the project's approval is expected to be issued in late 2020.

The STSA did not become participants to the environmental assessment until late 2018 – 2019, at which time they were able to review reports and submit a minor report on the potential impacts on STSA member First Nations and *S'ólh Témexw*. It was determined by the Vancouver Port Authority, the Impact Assessment Agency of Canada, and the STSA that an Integrated Cultural Assessment would be beneficial in understanding the impacts of the project on STSA member First Nations Rights and Title.

2 APPROACH

In this section the theoretical and conceptual frameworks used in this study are explained. The key aspect of these approaches is the use of the Stó:lō cultural lens to identify concerns, impacts and recommendations. With the adoption of the United Nations Declaration on the Rights of Indigenous Peoples, the Calls to Action of the Truth and Reconciliation Commission, and several case rulings, there has been significant rights recognition and rights-based changes in mandates, directives, and legislation that must be considered instructive and informative in presenting this assessment through the lens of Stó:lō Culture.

Culture affects the way in which people understand themselves, their land and resources, their community, and their relationships within and between themselves and others, including the known, unknown, tangible and intangible worlds. Within Stó:lō culture, contemporary relationships include the ancestral and spiritual worlds. In this study “culture” is used in its anthropological interpretation, as defined by Almond and Powell (1966: 23): “The set of attributes, beliefs, and values current in an entire population which gives order and meaning to a society and provides the underlying assumptions and rules that govern people's social behaviour”. Definitions of Stó:lō culture and heritage, applied in this project, are set out in the Stó:lō Heritage Policy Manual (2003 v1.1).

Models and theories presented in this section have been adapted from previous work carried out by the Human Environment Group (2009), Schaepe et al (2004) and Schaepe et. Al (2014). This framework provides a foundation for assessing potential impacts on Stó:lō culture.

2.1 Theoretical Approach

The theoretical approach to the ICA suggests change that is created externally, in this case through industry, being the impetus and necessity for modifying the way in which a community carries out their cultural activities. The modification affects values, meanings, teachings, and spiritual connection to those activities, thereby creating the potential for loss of language, kinship ties, connectivity, and aspects of culture, that have already been so threatened by policy and development. The theoretical framework is based on principles of symbolic interaction (Blumer, 1969) and cultural justice (Kwenda, 2003).

Another key theoretical assumption applied in this study is the concept that indigenous wellness is based on a holistic view of environment, spirituality, emotions, economy, and mental health as

inherent, rather than the western view in which each is individually constructed (Fiedeldey-Van Dijk, 2019). As such, the individual identity and the collective identity are intrinsically linked to the political economic system of cultural process and history (e.g., Bourdieu 1977; Schaepe 2009, Fiedeldey-Van Dijk, 2019). These forms of identity have the potential to be adversely affected by things that uncouple their linkage to the past, and simultaneously their point for projection into the future.

“Persistent peoples require access to shared procedures and practices (cultural tools, if you will) that allows them to imagine and sustain shared history and common future ... anything that works to cost such groups their meaningful ties to a common past, or to rob them of responsible commitments to a shared future is likely to prove to be corrosive to their collective well-being.”

- Taylor (1984)

In contemporary western science-based economic calculations there is no intrinsic value of nature, of the environment, of the land. Rather, it is seen as an obstacle in the way of economic development and wealth. There is no inclusion of the value of the natural asset, which is so indelibly etched within the Stó:lō World View as the gifts from the creator that sustain the individual's and the collective's health and well-being (Davis, 2009).

This study, set in the contemporary context of the Stó:lō (People of the River) of the lower Fraser River Watershed of southwestern British Columbia, known as S'ólh Téméxw (Our Land; Our World), is based on the cumulative effects from pre-settler history through today's contemporary baseline, and extends to the projected impacts of the project in the near future.

The Stó:lō have been subject to a history and process of land and resource use with S'ólh Téméxw . It began with the first contact with Europeans (1808) and was entrenched by the Crown government through the Oregon Treaty (1846), the establishment of British Columbia as a Crown Colony (1858), and the British North America Act (1876). It continues today in a manner that continues to lack the recognition and input of the Stó:lō and, resultantly, has established the current landscape of significant stresses and limitations on the ability of the Stó:lō to exercise their aboriginal rights and traditional culture within S'ólh Téméxw. Such unilateral and diasporic economic development continues to significantly and adversely affect the rights and identity of the Stó:lō, as one of the world's surviving Indigenous peoples.

The following work aims to identify the Stó:lō worldview and epistemology as a fundamental framework to carry out this assessment of potential impacts to their cultural heritage.

2.2 Methodological Approach

The methodology used in this study is based on what Denzin and Lincoln (1994) consider the third moment of qualitative research that requires participatory methods to make sense of local culture and traditions.

2.2.1 STUDY AREA

The integrated cultural impact assessment will consider the project site development and all 3 phases of its work, as identified in Figure 2-5 below.



Figure 2-1 Roberts Bank Terminal 2 Project Area

In general, the ICA will consider the proposed project as it lies within *S'ólh Téméxw* (Stó:lō Traditional Territory; Figure 2-2).

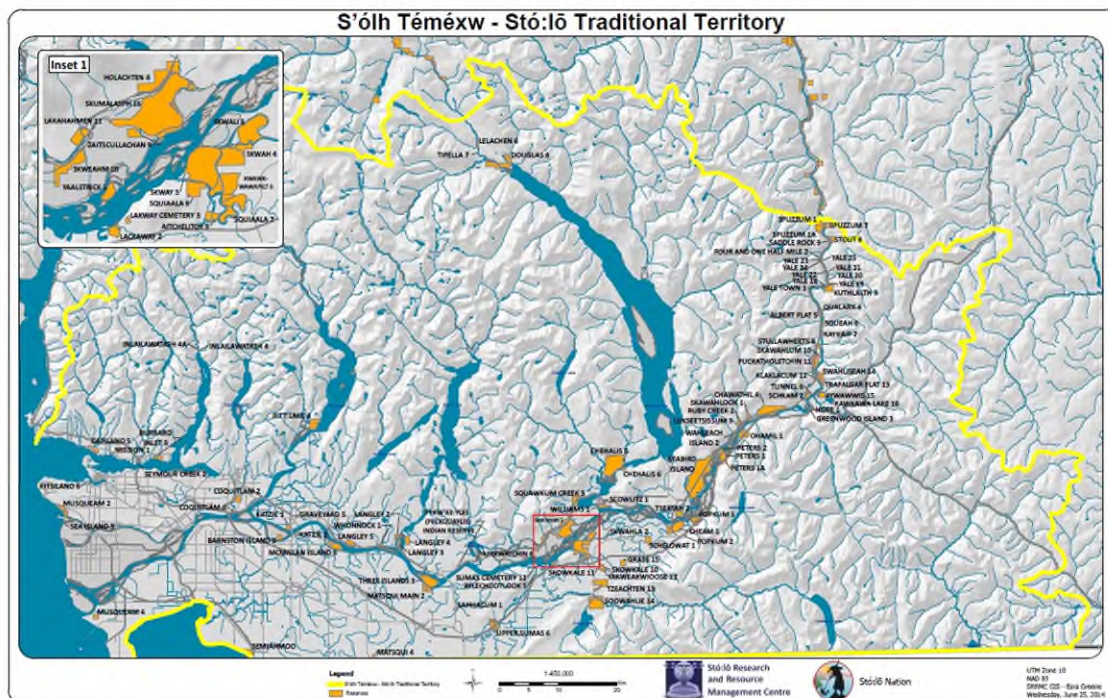


Figure 2-2 S'ólh Téméxw (Our Land) - Stó:lō Traditional Territory

As per the Stó:lō Heritage Policy Manual (2003), S'ólh Téméxw is defined as follows:

Stó:lō Territory; the Halq'eméylem word for “our world” or “our land”, including the lower Fraser River watershed downriver of Sailor Bar Rapids in the lower Fraser River Canyon. S'ólh Téméxw represents the world transformed by the actions of the Xexá:ls, Tel Sweyal and other ‘agents’ of Chichelh Siyá:m [the Creator]. S'ólh Téméxw is defined through the known extent of occupation and land use of the Halkomelem speaking peoples of mainland British Columbia.

The Canadian extent of S'ólh Téméxw includes the lower Fraser River Watershed:

Extending from the 49th parallel at Frosty Mountain near Manning Park, northward to Ross Lake watershed and on to the Coquihalla watershed up to the Coquihalla Lakes. Westward from there the boundary meets Hidden Creek, near Spuzzum, crosses the Fraser to follow the Spuzzum Creek to the watershed of the Harrison Lake. The line then goes northwest and crosses the Lillooet River ten miles north of Port Douglas. The line then extends west, including the watersheds of the Stave Lake, Pitt Lake, Indian Arm and Capilano River, and then down from West Vancouver to White Rock and due east along the 49th parallel, including the Chilliwack Valley and Upper Skagit Valley, to Frosty Mountain.

3 STÓ:LŌ SOCIO-CULTURAL PROFILE

Today, in continuity with thousands of years of history, the Stó:lō (People of the River) occupy and use S'ólh Téméxw, the lower Fraser River watershed of southwestern British Columbia (Figure 2-2). As Halq'eméylem-speaking Coast Salish people, Stó:lō are culturally and familiarly tied to many Coast Salish Tribes, and families. Stó:lō are interconnected with the land and resources of S'ólh Téméxw, culturally spiritually, physically, psychologically, and economically. They maintain a long-standing and deep-seated relationship with, defense and protection of, and continued management and use throughout their territory, S'ólh Téméxw. Stó:lō occupation of S'ólh Téméxw extends back thousands of years, to time immemorial. Evidence of thousands of years of continuous occupation by the Stó:lō and their ancestors is documented through a range of disciplines including oral history, written history, ethnography, and archaeology (Schaepe 2006; 2009).

Several key references relevant to this study include: Being Ts'elxwéyeqw First Peoples' Voices and History from the Chilliwack-Fraser Valley, British Columbia (Ts'elxwéyeqw Tribe, ed. David M. Schaepe, 2017); A Stó:lō-Coast Salish Historical Atlas (Carlson, Schaepe, McHalsie, Smith, Rhodes and Duffield 2007/2001); Trans Mountain Expansion Project Integrated Cultural Assessment (2014), Sumas Energy 2, Inc.(2003/2004) 230 KV Electric Transmission Line Sumas Washington to Abbotsford, BC: Traditional use study- phase 1 and 2, (Schaepe et al 2003, 2004); BC Hydro (ILM) Reinforcement Project; Stó:lō Traditional Land and Resource Use Impact Assessment Study (Schaepe et al 2009); The Problem of Space the Power of Time (Carlson 2010); Coast Salish Essays (Suttles 1985) Suttles;

Faith of a Coast Salish Indian (Jeness 1955); The Chilliwacks and their Neighbors (Wells 1987); Upper Stó:lō Ethnography (Duff 1954); Exploring Stó:lō-Coast Salish Interaction and Identity in Ancient Houses and Settlements in the Fraser Valley, British Columbia (Lepofsky, Schaepe, Graesch, Lenert, Ormerod, Carlson, Blake, Moore, and Clague 2009); Indian Tribes of the Lower Fraser River (Boas 1894); Boas, Franz. Indian Myths and legends from the North Pacific Coast. (Bouchard and Kennedy, 2002).

The Stó:lō maintain a wide range of political, socio-cultural, and economic ties, including occupation, use, and management of the land and resources within S'ólh Téméxw. The Stó:lō-Coast Salish have a long history of defending their lands from unwelcome outsiders (Angelbeck 2009; Angelbeck and McLay 2012; Richards 2011; Schaepe 2001; 2006; Supernant 2011) . Stó:lō identity and societal health, including an interconnected set of spiritual, mental, physical, emotional relations are linked to and dependent upon the integrity of the land, air, water, and resources constituting S'ólh Téméxw and the Stó:lō cultural landscape (see Carlson 2006, 2010; McHalsie 2007; Schaepe 2007; Schaepe et al 2003). The activities of Stó:lō within S'ólh Téméxw provide a holistic view of economic, social, political, environmental, and spiritual connectivity; one cannot be successful or healthy without the other, for all things have *Shxwelí* (spirit) and all things are interconnected. Their longstanding socio-cultural and socio-economic relations, values, and behaviours are factors of their deep connectedness to the ancestors, land, air, water, resources, and cultural places of S'ólh Téméxw

Long-lasting activities like fishing, stories, storytelling, language (Halq'eméylem), songs, protection of cultural practices, and the protection from non-Stó:lō 'others' are the basis of Stó:lō identity. Individuals and families of Stó:lō living throughout S'ólh Téméxw share many aspects of Stó:lō intangible heritage and cultural expressions that create a collective identity that has both spatial and non-spatial linkages and connections. These include transformer narratives, songs, and spiritual and cultural principles and practices. Consequently, it is impossible to assess or understand Stó:lō people and culture simply as a factor of 'spatial proximity' and direct spatial relations between the location of a resource or place of practice (i.e., site), an area of impact, and a particular community (i.e., reserve or Band).

4 STÓ:LŌ CULTURAL VALUES

Describing Stó:lō cultural values relies on a number of Halq'eméylem words and concepts occupying central places in the interconnected framework of Stó:lō cosmology, including:

“Halq'eméylem” means the language of the Stó:lō; Halq'eméylem is the upriver dialect of the Halq'eméylem language (note that further reference to the language will include Halq'eméylem);

“shxwelí” means the life force or spirit connecting all things, including plants, air, earth, water, animals, and people within S'ólh Téméxw;

“snoweyelh” means teachings, principles, or laws;

“Syúwél” means winter dance;

“S'ólh Téméxw” means our world or our land and refers to Stó:lō traditional territory (see Figure 2-2);

“sqwélqwel” means the true news, family history, and includes their collective and personal histories since *sxwōxwiyám*;

“Stó:lō” means the people of the river who are the Coast Salish people of the lower Fraser watershed whose traditional language is Halq'eméylem;

“sxexó:mes” means all our gifts and includes the Halkomelem language, resources (e.g. cedar; salmon), Stó:lō heritage sites (e.g., spiritual places; landscape features; traditional use areas and religious use areas), material cultural heritage (e.g. objects), ancestral human remains, and cultural intellectual properties (e.g., Halkomelem place names, names, songs, dances, designs, ceremonies, and traditional cultural knowledge);

“sxwōxwiyá:m” means narratives of the distant past "when the world was out of balance, and not quite right", and the actions of *Xexá:ls* “making the world right,” which describe the origins of and connections between the Stó:lō, shxwelí, sxexó:mes, and S'ólh Téméxw;

“Sxwó:yxwey” means Sxwó:yxwey ceremony featuring a masked dance, also a rock shaped like a man’s head with a Sxwó:yxwey mask on a point near the head of Harrison River, the point is also called Spook’s Point;

“syúwél” a winter dancer’s spirit power; and

“tómieyqw” means great-great-great-great-grandparents/aunts/uncles and great-great-great-great-grandchildren/nieces/nephews and establishes the connection between the living Stó:lō and the people seven generations past and future.

We present this framework initially using commonly understood English terms, which are then articulated through a Stó:lō cultural lens, using key Halq'eméylem definitions in order to show the association of language and Stó:lō concepts (Table 4-1).

Table 4-1 THE INTERPRETIVE FRAMEWORK OF THIS STUDY LINKING CORE CULTURAL FACTORS, INDICATORS, AND RELATIONS

Core Cultural Elements	Stó:lō Cultural Frames of Reference/ Halq'eméylem Terms	Core Cultural Relations
Collective	Sxexó:mes	Practices
Individual	Shxwelí	Health
Knowledge/Principals	Sxwōxwiyá:m	Worldview
Timeframe	Snoweyelh	Traditions
	Tómieyqw	

4.1 Modeling Interconnected Dimensions of Stó:lō Culture

This section aims to present some of the main principles of Stó:lō cultural practices in a visual form. These principles are derived from Stó:lō interviewees in a previous study on connections between Stó:lō cultural practices and the environment (e.g., Schaepe et al. 2004, Schaepe et al. 2014). Central concepts of Stó:lō culture as describe by Stó:lō community members (often unrecognized or misunderstood by those unfamiliar with Stó:lō culture) are drawn together in this image. The figure 'Four Interconnected Dimensions of Stó:lō Culture' (Figure 4-1) was conceived of and constructed in an effort to meet this objective (Schaepe et al. 2004:231).

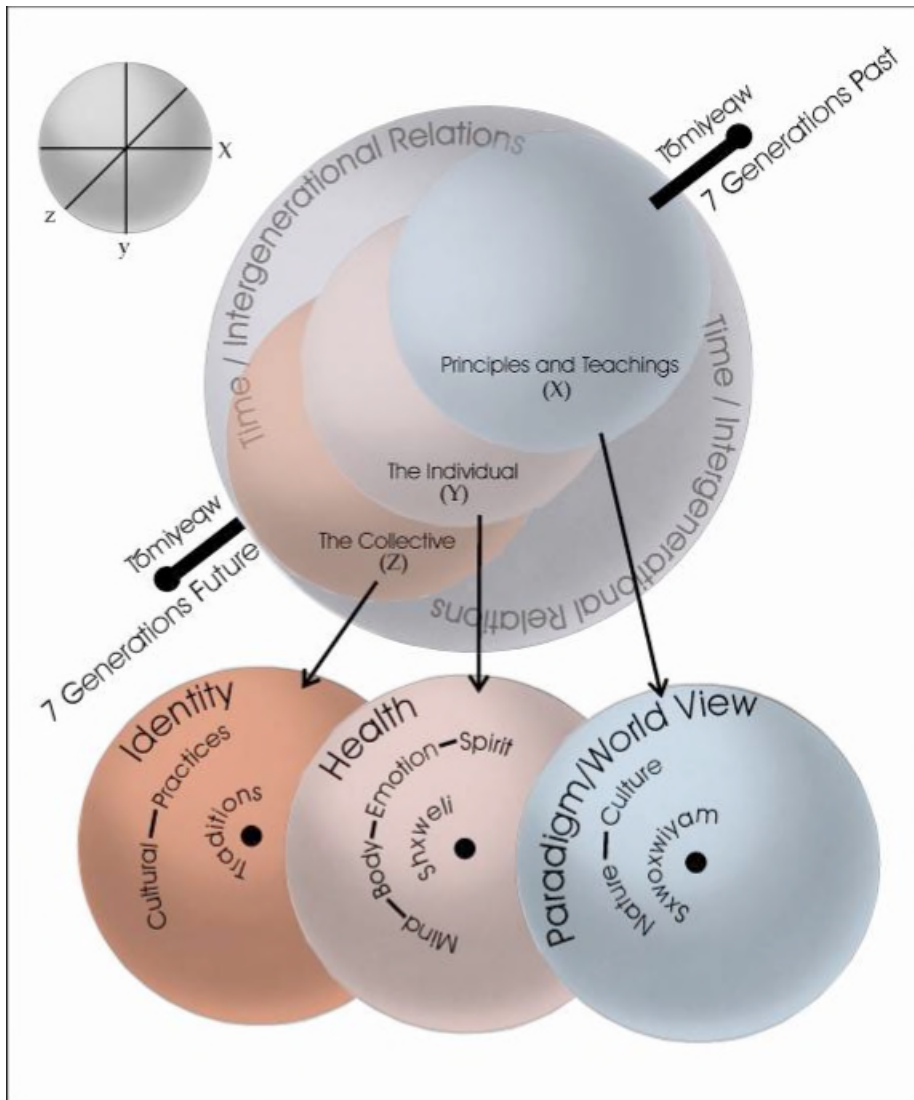


Figure 4-1 FOUR INTERCONNECTED DIMENSIONS OF STÓ:LŌ CULTURE (FROM SCHAEPE ET AL.

4.1.1 Spherical Geometry – A Model Form of Stó:lō Culture

Stó:lō culture is greatly interconnected on numerous levels and across numerous dimensions making it best represented by a three-dimensional *sphere*. A geometric sphere's framework is displayed here as an object with a three-way axis (X,Y,Z coordinates). These axes, which represent three places connected at a central point, are encompassed by the 'skin', or surface of the sphere representing a

fourth dimension that connects to, contains, and adds form to the X, Y, and Z axes. The upper left quadrant of Figure 4-1 depicts this structural framework.

4.1.2 Identifying the Dimensionality of Stó:lō Culture

After modelling the basic form of Stó:lō culture, the following four dimensions comprising the spherical framework can be attached to Stó:lō culture and identified:

- X-axis = the dimension of 'Principles and Teachings'
- Y-axis = the dimension of 'The Individual'
- Z-axis = the dimension of 'The Collective'
- 'Surface' = the dimension of 'Time / Intergenerational Relations'

The fact that each of these axes is itself spherical in nature rather than two-dimensional cannot be overlooked and accounts for the abstract and complicated nature of the graphic representation. Figure 5-2's central image is a conceptual version of the dimensions identified extracted from the spherical structure. The four dimensions, shown as interconnected spheres, rotate on one shared axis – symbolic of the multiple planes of actual interconnectedness existing between the spheres. Following its identification, each dimension can be examined individually as an autonomous sphere.

4.1.3 Labeling the Dimensions of Stó:lō Culture

The central image in Figure 4-1 has been 'exploded' resulting in the artificial separation of each dimension (like atoms from a molecule) then bisected to create three individual spheres. The bottom of Figure 5-2 contains the three spheres with a cross-section of a corresponding dimension that can be 'in-filled' with related aspects of Stó:lō culture confined by that dimension.

It should be noted that each sphere has a central point which indicates the point of connection with the shared axis. Finally, there is also a connection to the dimension of 'Time / Intergenerational Relations' at the point of 'Self' in each of the spheres, extending along a scale seven generations past and future. 'Tómiyeqw' is the Halq'eméylem term defining this interconnectedness between past and future generations, anchored in the present; a principle central to Stó:lō culture.

4.2 The Core of the Interpretive Framework – Generalized and Stó:lō-specific Elements of the Model

In Figure 4-2 core elements of society and social dynamics are modelled while identifying fundamental elements within this system. Subject to change, these affect cultural integrity and socialization processes. Central to this generalized model are four major elements:

- Practices and expressions;
- Worldview;
- Health;
- Continuity and change ('tradition')

Dynamic relationships between the individual, collective, knowledge, and timeframe connect these elements to aspects of socialization processes and cultural integrity. A holistic and integrated cultural system is constituted of these dynamically negotiated and interacting core elements. The very core of

our framework, upon which cultural values and activities are situated, is established by this culture system. The generalized ‘core’ framework is reiterated as a means of providing context for presenting and understanding our Stó:lō-specific model.

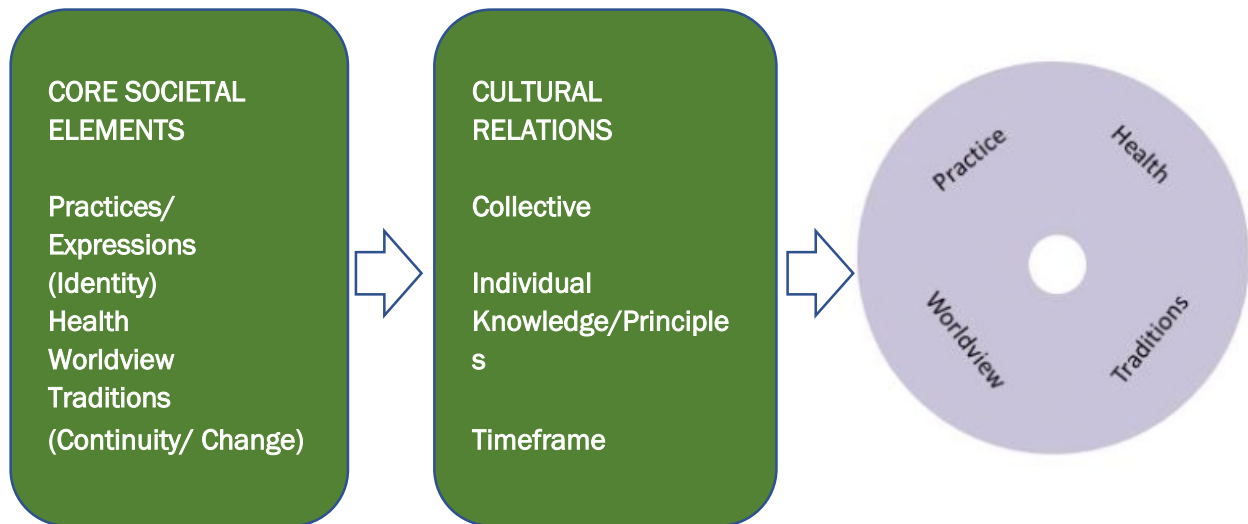


Figure 4-2 A MODEL OF CORE ELEMENTS OF SOCIETY AND SOCIAL DYNAMICS IDENTIFYING INTEGRAL ELEMENTS ASSOCIATED

snoweyelh) have been added to the Stó:lō model extracted from Schaepe et al (2004) to capture the interconnected dynamics of the Stó:lō core. Figure 4-3 illustrates the integrated cultural elements that form the core of Stó:lō society. The section to follow presents and explores the outer layers of our integrated cultural assessment model (activities and values) as cultural aspects directly connected to this cultural core and dependent on this interconnected, multi-dimensional nucleus of the Stó:lō cultural system.

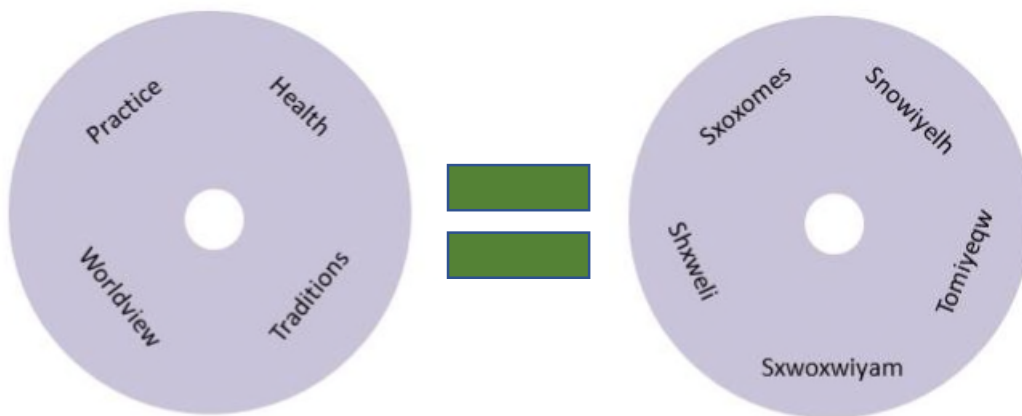


Figure 4-3 A MODEL OF CORE ELEMENTS OF CULTURE AND SOCIAL DYNAMICS OUTFITTED WITH INTEGRAL, INTERCONNECTED ELEMENTS OF STO:LO CULTURE.

As discussed in section 2, cultural values have the ability to affect the way cultural activities are carried out. Conversely, cultural values can be affected when outside forces change the way cultural activities are carried out. When values are affected – culture is affected. Describing how this core relates to the

cultural values instilled by carrying out cultural activities is the focus of Section 6. Figure 4-4 represents the core elements of Stó:lō culture providing the basis of key cultural values.

Building on the Stó:lō model extracted from Schaepe et al (2004) and work previously carried out by the Human Environment group in 2009, cultural values were added to the generalized model presented above. Key cultural values examined for this report include:

- Respect
- Pride
- Tradition
- Leadership
- Rootedness/ Sense of place
- Purpose
- Responsibility
- Patience
- Cohesion/bonding
- Connectedness/continuity
- Rhythm of Nature
- Self determination
- Reciprocity/Sharing
- Self-reliance
- Self-representation
- Caring

The Table (Table 4-2) below provides definitions for each of these values. Section 6 will use the Stó:lō cultural model (Figure 4-5) to illustrate linkages between various activities and cultural values and present how these linkages have changed over time. Appendix A summarizes the cultural values associated with each cultural activity as a result of historical and contemporary inputs and outputs.

Table 4-2 DEFINITIONS OF STÓ:LŌ CULTURAL VALUES

Cultural Component	Value-- English	Value- Halq'eméylem
Sxexó:mes Values rooted in Sxexó:mes, naturally founded on continuous self-knowledge and learning	Tradition	Xwelmexwqel – our way íwes – teach how to do something, teach, guide, direct ,show S'iwesá:ylhem – teachings for children Hákw'eles – to remember Sátilhtset sxwōxwiyá:m – to pass it to (him/her) legend, story of transformer Shxwtelí- where you come from S'xweta:s selh tset te mekw'stám – The way we were with everything Syiwí:l – Spirit power
	Self-reliance	Óyó:lwethet- be totally independent, doing the best one can

		<p>Lh̄eylexlóm̄et – stand up by oneself</p> <p>Stélm̄el – Someone’s own knowledge, own idea</p> <p>Schewót – smart, knows how good at it</p> <p>lyálew̄et – do it, do it/ something oneself</p> <p>Mestiyexw – conscience, spirit (can be lost temporarily), soul, life-spirit, power of one’s will</p>
	Self-determination	<p>Q’á:l – to believe</p> <p>Sxaxesélm̄et – determination</p> <p>Sxáxas – (be) determined, got your mind made up</p> <p>Xasélm̄et – determined (about something), must do it</p> <p>Tíméth̄et – Exert oneself, make a big effort</p> <p>Thkw’éth̄et – pull oneself up, straighten up</p> <p>Eyém̄stexw – make it/him/her/them strong</p>
	Pride	<p>Sp’éqw- be proud</p> <p>Smá:l̄eth’el – many, lots of people are proud</p> <p>Smám̄th’el – (be a) little proud</p>
	Leadership	<p>Siyá:m – Chief, leader, respected person, boss, dear</p> <p>Xwiléxmet – stand up to someone respected</p> <p>Smelá:l̄h – respected/high class person</p>
	Self – representation	<p>Sqw̄elqw̄el – true news, family history</p> <p>Telóm̄elth̄et – acknowledge oneself</p> <p>Lheq’elóme- know oneself, be confident</p>
Tómiyeqw Values related to social interaction	Responsibility	<p>Xólhmet te mekw’stám̄ s’í:wes te selsila:l̄h chet – take care of everything our great grandparents taught/showed us.</p> <p>Haql̄es chexw xw̄elmi:ay staxwelh – remember our future generations</p> <p>̄X̄ax̄a stexw te selsila:l̄h te skwixw – respect our ancestors’ name</p>
	Cohesion/Bonding	<p>Lhlím̄elh – it is us, we are the ones, ourselves</p> <p>Talhlím̄elh – we us</p> <p>S’ólh – ours, our (emphatic)</p> <p>Sq’eq’ó – along, together, be included with</p> <p>Q’élmet – believe, trust someone</p> <p>Q’óleq- pal, best friend, dear friend</p> <p>The’ít̄tel – be true to one another</p>
	Reciprocity/Sharing	<p>Áxwest – give an equal share or amount to someone, give (food) to someone, share</p> <p>Tl’ém̄exw – part/portion</p>

		<p>Ma:mt'lam te mekw wat – share with everybody</p> <p>Shxw'eywelh mestiyexw – a generous person</p> <p>Q'élq'xetel – to return, give back</p> <p>Kweléqelhhst – distribute</p>
	Caring	<p>Meqw wat memeylhutel – everybody helps one another</p> <p>Shxw'ístexw – care about someone/something</p> <p>Xó:lhmetet – taking care of oneself</p> <p>Xóxwelhmet – looking after/taking care of someone</p> <p>Momíyelhutel – helping one another</p> <p>Xólhmet – look after/protect/take care of someone</p> <p>Sts'its'exwtel – be considerate of each other</p> <p>Slíq' – to be ever generous</p> <p>Lexw'éy – generous, kind, good hearted/natured</p> <p>Máyx – help/defend/protect/aid someone</p> <p>Xwe'éy:welh – good kindhearted, generous, helpful, easy going, good natured</p>
<p>Snoweyelh Shxwelí</p> <p>Values related to the Stó:lō World View of the cultural connection between the Stó:lō and the natural environment and the land .</p>	Rootedness	<p>S'ólh Téméxw te íkw'elò – This is our Land</p> <p>Xólhmet te mekw'stám it kwelát – We have to take care of everything that belongs to us</p> <p>Íkw'elò – here, this place</p>
	Rhythm of Nature	<p>Xaxastexw te mekw'stám – respect for all things</p> <p>S'xweta:s selh tset te mekw'stám – the way we were with everything</p>
	Respect	<p>S'í:sí Téméxw – Sacred Land</p> <p>Shxw'ístexw Téméxw – to take care of the land</p> <p>Ewe chexw qelqelilt te mekw'stám loy qw'esli hokwex yexw lamexw ku:t – don't ruin/waste/destroy everything, just take what you need</p>
<p>Sxwōxwiyá:m Shxwelí</p> <p>Values related to the Stó:lō connection to their ancestors, the spirit world, that is beyond the limits of one's own life and experience – not of</p>	Peace	<p>Líqwel – get/become calm, peaceful</p> <p>Xwoyíwél- be(ing) happy</p> <p>Wiyóth kwsu éys te sqwálewels te lólets'e – optimist, a person whose thoughts are always good</p>
	Patience	<p>Tl'épstexw ta'sqwálewel – be patient</p>
	Connectedness	<p>Lets'emó:t – one mind</p> <p>Lets'e thale – one heart</p> <p>Q'ó:thet – join (include oneself purposely)</p>

the physical world, but beyond that realm		St'at'á - being similar Stetís - be near/close to/beside/next to
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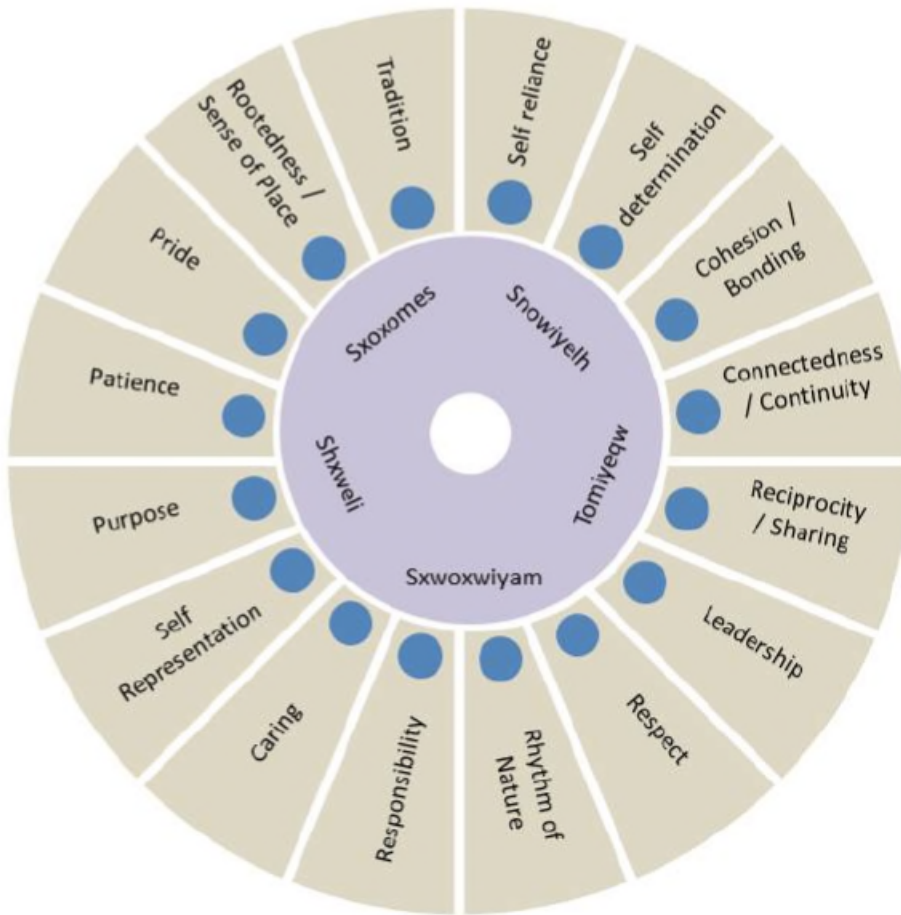


Figure 4-4 CORE ELEMENTS OF STÓ:LŌ CULTURE AS THE BASE FOR KEY CULTURAL VALUES

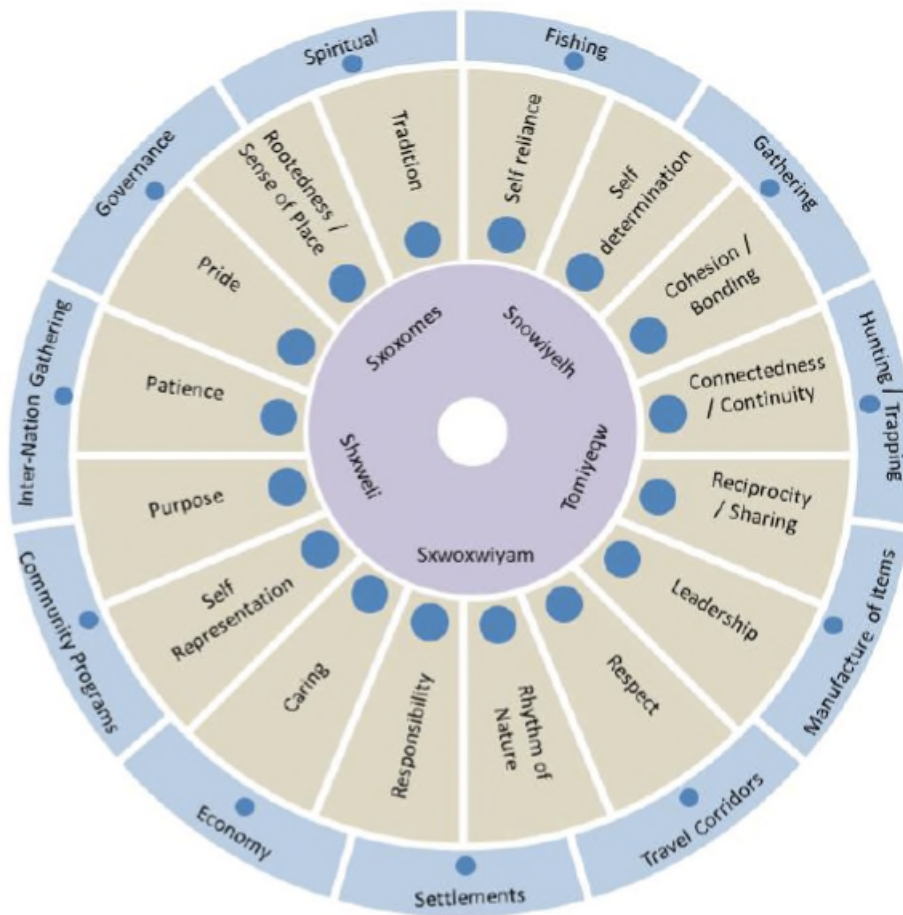


Figure 4-5 STÓ:LŌ CULTURAL MODEL USE FOR THE INTEGRATED CULTURAL ASSESSMENT

5 ACTIVITIES AND CULTURAL VALUES

The methodological approach (see Section 2.4) relied in a large part on community participation, which led to the identification and use of activities as tangible elements reflecting cultural values. These “activities” range from fishing, hunting, working, sharing meals and praying, to raising children and going to school – essentially, that which we do in our daily lives. Activities can be useful as a substitute for culture within the context of an impact assessment as they are often transformed over time, being impacted by technological and environmental changes, or external pressures.

Topics identified as those most likely to be impacted and affected were the basis for selection of cultural activities for the ICA.

Summarized below are the historical and modern linkages between activities and the values they instill. The diagrams included in this section highlight the relationships established historically between 11 traditional Stó:lō activities (areas of interest) and potential impacts as identified in this study. The information used in these figures has been taken from both published and unpublished sources. Different line types have been used in the cultural model to illustrate changes over time in

the linkages between cultural activities and values. Additionally, the use of arrows in some tables highlights where these linkages have been affected.

5.1 Spiritual activities

Stó:lō world view and spirituality are intricately connected through activities, especially spiritual activities, places, and cultural expression. Spiritual activities are based on teachings of both the tangible and the intangible and of the tangible and intangible sites and understandings. Stó:lō spirituality and spiritual activities may be different from the spiritual activities of any other religion or practice, but is no less tangible or intangible than those, and should be given the same weight, understanding and protection.

A loss in land, contamination of water, loss of flora or fauna, or a change in air dynamics or purity directly effects the First Nation and the individual. In previous studies, such as those carried out by Canada, changes in land, air, water, that affect the identify, activity, or sense of place or rootedness have an adverse impact on the psychological, physical, and spiritual health of First Nations peoples. These losses can result in depression, addiction, and/or suicide. To help understand the relationship community members have to the land, air, water, flora and fauna, specific activities have been identified (please note there are many other aspects and activities relating to spirituality, include sites specific Stl'áleqem, place names, and activities, the list below are just some activities that provide an understanding of the scope of such activities_. The spiritual activities that have been identified are:

- Syúwél
- Sxwó:yxwey
- Regalia placement
- Cleansing/Bathing
- Fasting/sweat ceremony/burning for ancestors

Table 5-3 lists the cultural values associated with spiritual activities.

Table 5-1 : CULTURAL VALUES AND CULTURAL INPUT/OUTPUTS ASSOCIATED WITH SPIRITUAL ACTIVITIES

Spiritual Activities			
Cultural Values	Inputs/Outputs	Value changes	Contemporary inputs/ outputs
Respect	Intergenerational transfer of knowledge		Intergenerational transfer of knowledge
Pride	Knowledge of place		Knowledge of place
Tradition	Language	↓	Language
Leadership	Spirituality		Spirituality
Rootedness/ Sense of Place	Traditional places and laws		Traditional places and laws
Purpose	Cultural protocols		Cultural protocols
Responsibility	Role in Community		Role in community
Patience	Teachings and lessons		Teaching and lessons
Cohesion/Bonding	Socio-political status		Socio-political status
Connectedness/Continuity	Recognition		Recognition

Rhythm of Nature	Shxwlá:m: doctoring healing		Shxwlá:m: doctoring healing
Self-Determination	Spirit/Sickness/ Health	↓	Spirit/Sickness/ Health
Reciprocity/Sharing	protocols		protocols
Self-reliance	Learning, practicing	↓	Learning, practicing
Self-representation	Identity as practitioner	↓↓	Identity as practitioner
Caring	Personal/Family health	↓	Personal/family health

5.1.1 Historic role of Spiritual activities

As with any culture, spiritual activities are a critical aspect of identity, and belonging. They are practices that connect the individual with the creator, and to their ancestors and form the collective identity of Stó:lō to one another and to the land and resources within S’ólh Téméxw. *Shxwelí, the life force of all things*, is a critical aspect of the Stó:lō world view, it is the basis for the connection between the people and the natural environment. Stó:lō world view of connectedness and interconnectedness of all things, whether “living” or “not living” in a Western perspective, is an integral part of Stó:lō health and wellbeing whether the individual or as a collective (see Section 4 - health model). Spirituality affected all aspects of Stó:lō life including food, social, ceremonial, political, and economic activities and values.

As Figure 5-5 illustrates, spiritual activities have historically been associated with all the Stó:lō core cultural values.

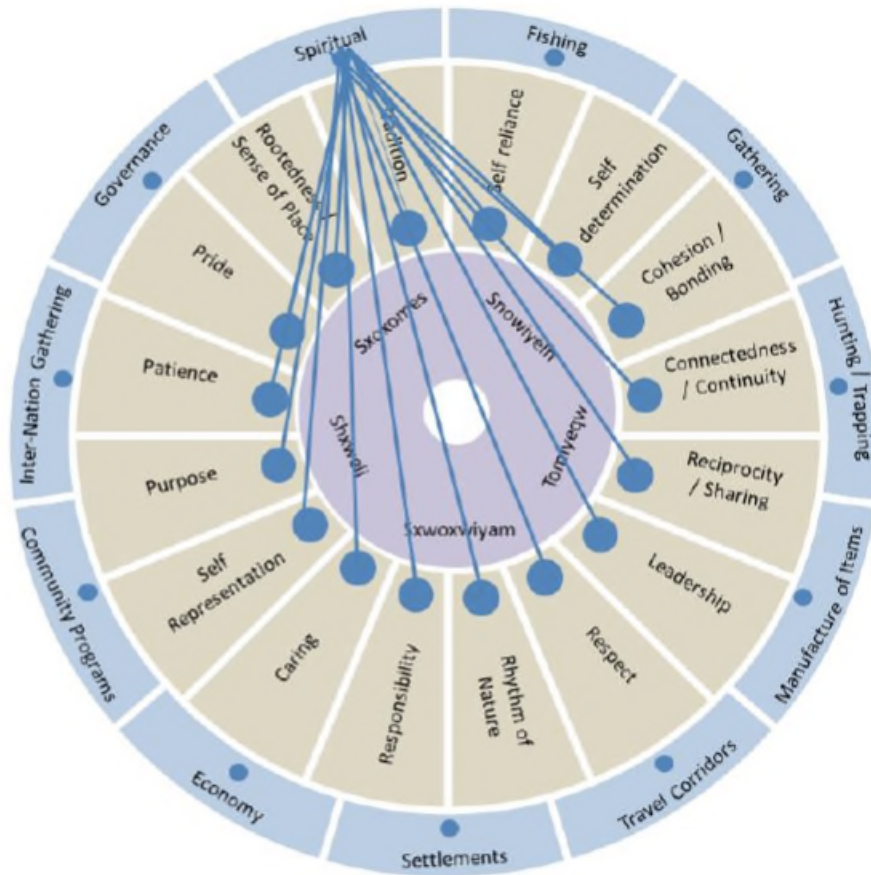


Figure 5-1 CULTURAL VALUES ASSOCIATED WITH HISTORICAL SPIRITUAL ACTIVITIES

5.1.2 Contemporary role of Spiritual activities

Although there have been a number of factors that have impacted the spiritual activities of Stó:lō in the past, including the anti-potlatching law and the implementation of restrictions around gatherings, such as the spirit dances in the longhouse, residential schools and the '60's scoop, spiritual activities have continued in Stó:lō society (Labun and Emblen, 2007). Traditions, language, songs, dances, and teachings were maintained through different families in different ways, at the risk of their own lives and wellbeing. However, not all dances, songs, ceremonies, or aspects of language remained and this loss has had an impact on how Stó:lō spiritual activities are continued today. Spiritual activities continue to be an integral part of Stó:lō society, their connectivity to Stó:lō world view, practices, activities, education, governance, continuity, sense of place and belonging, and health.

Other activities that have impacted spiritual activities in S'ólh Téméxw include the loss of waterways, specifically the tributaries of Sumas Lake and the draining of the Lake itself, loss of access to spiritual sites, urbanization leading to less privacy and protection of sites, recreational and industrial activities like atv'ing or forestry respectively, leading to discovery of important cultural artifacts and sites, and the use of burial mounds and cultural depressions as an aspect of recreation (Mohs, 1987; Schaepe et al 2004; Thom, 2005).. All the changes to the land, air pollution (specifically in the Fraser Valley), and water contamination impact the sites for use in spiritual ceremony and activities.

S'ólh Téméxw continues to embody a cultural landscape of Landmarks, placenames, sacred places, ancestors, and individual histories, central to individual and collective identities and health.

As figure 5-6 illustrates, spiritual activities are directly related to the following core cultural values

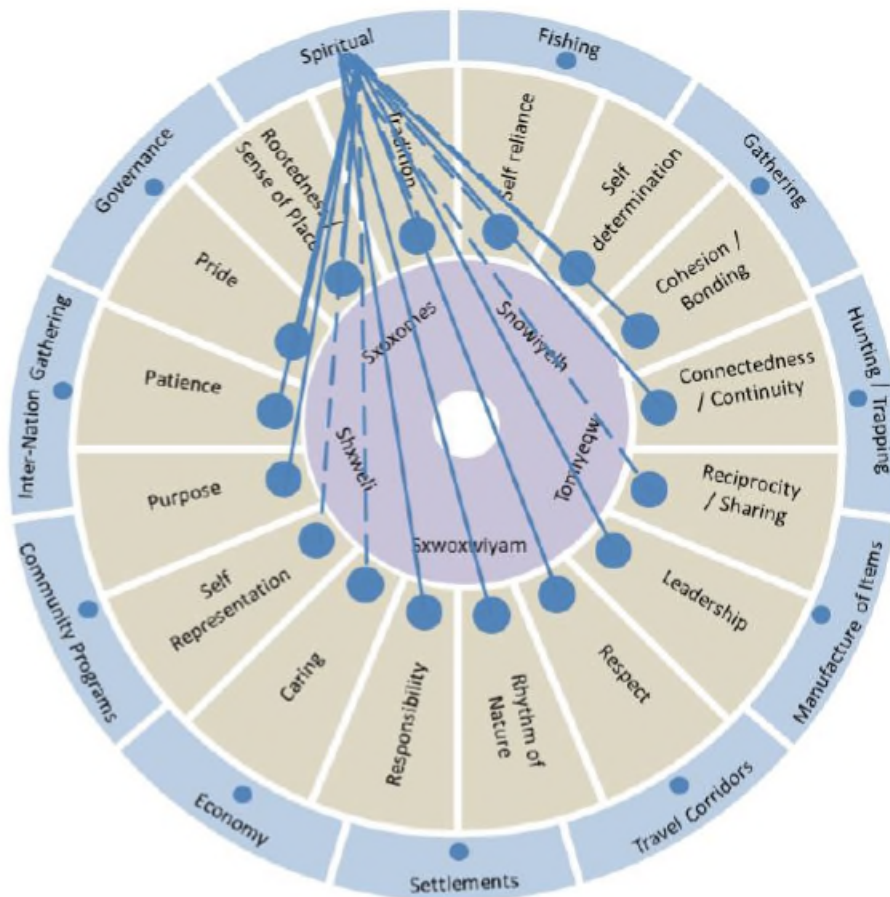


Figure 5-2 CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY SPIRITUAL ACTIVITIES

5.2 Fishing

fishing is directly connected to nearly every aspect of Stó:lō culture and identity. To allow the ICA to more effectively select an appropriate range of indicators to describe “fishing”, several sub-activities were broken down. These include the following: Stó:lō culture and identity is highly linked to fishing and fishing activities. Fishing includes the following activities, which will be further used as indicators through the cultural assessment:

- Dip netting
- Setting nets
- Hooking / gaffing
- Wind-drying / dry-rack
- Drifting
- Beach Seining

Table 5-1 lists the cultural value, inputs, outputs and value changes as fishing moves from traditional cultural practices to the contemporary practices.

Table 5-2 Linkages between Fishing and Cultural Values

Cultural Values	Inputs/Outputs	value changes	Contemporary inputs/ outputs
Respect	Subsistence		subsistence
Pride	Knowledge of place		Knowledge of place
Tradition	Transfer of knowledge	↓↓	Skills
Leadership	Traditional skills		Strength/power
Rootedness/ Sense of Place	Traditional property rights/laws		Health
Purpose			Wealth
Responsibility	Spirituality, take care of gifts, of environment, each other		Employment, house, individual and family
Patience	Language, learning		Learning, daily routine
Cohesion/Bonding	Strength, shared responsibility	↓	Family gatherings, friends
Connectedness/Continuity	Health, kinship, Stó:lō World View		Health, religion
Rhythm of Nature	Wealth, conservation	↓	
Self-Determination	Trade of goods	↓↓	Employment
Reciprocity/Sharing	Traditional protocols	↓	Family welfare
Self-reliance	Defined role in community	↓	Position at work, in community
Self-representation	Subsistence, art, creativity, skills		Art, creativity, employment
Caring	Community health	↓	Personal/family health

5.2.1 Historic Fishing Practices

Stó:lō, as a People of the River, are deeply connected to and reliant on salmon, sturgeon, and other aquatic species. These are integral elements of society, culture, economy, politics and tradition. The historical practices used to catch, and process fish involved many different methods, tools, and activities, including setting nets, torch lighting, dip netting, drift netting, and wind drying. Water quality has always played a key role in relationship between people, fish, habitat and land. Stó:lō identity is tied to fish, rivers, creeks, aquatic habitat and relations to land and ancestors and it is through traditional practices that they follow the rhythm of nature through the seasons, the same rhythm followed by the spawning salmon and other fish species. Stó:lō were able to identify years of abundance and years of scarcity through that rhythm and their teachings.

Custom laws of inheritance and leadership were employed to establish and maintain specific fishing rights, which instilled specific values of responsibility, management, caring, and identity for Stó:lō. Fishing camps, wind drying locations, and specific fishing sites all greatly contributed to a sense of belonging within the community, to a sense of place, and created links to the land, waterways, and seasonality.

As Figure 5-1 illustrates, fishing is associated with all the core cultural values associated with Stó:lō culture.

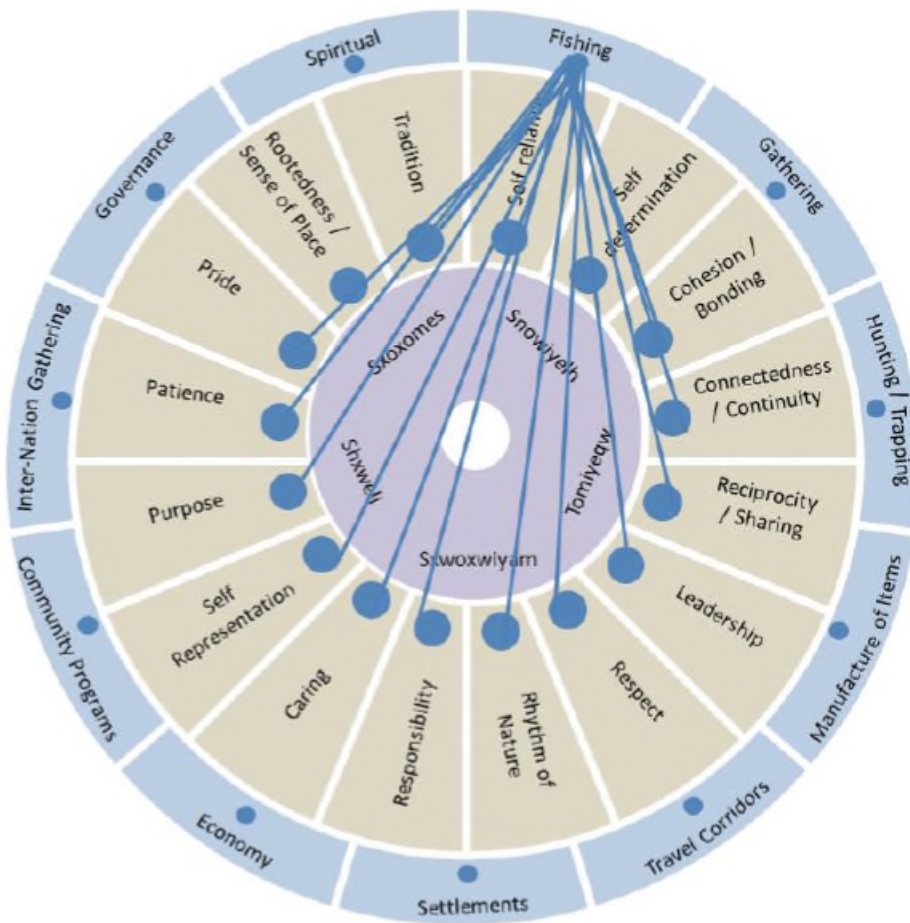


Figure 5-3 CULTURAL VALUES INSTILLED BY HISTORICAL FISHING PRACTICES

5.2.2 Contemporary Fishing Practices

Fishing remains an essential cultural practice tied to nutritional, social, ceremonial, and economic aspects of Stó:lō society. Critically important to traditions, cultural and spiritual activities, and identity are both fish and fish habitat, however, contemporary fishing practices are influenced throughout S’ólh Téméxw by a wide range of colonial policies related to land and fisheries.

Aspects affecting how and where fishing occurs today include land privatization, destruction of fishing sites, reduced access, and governmental regulations. These have created limitations affecting the ability of Stó:lō to rely on fishing as a primary food source year-round. The ability to support cultural

activities and food sharing is affected by any decrease in fish harvested. Current government laws and policies, for example licensing, banning specific fishing practices, seasonal openings, and conservation policies, limit customary laws of inheritance and traditional management strategies and protocols. Stó:lō have seen fewer opportunities to fish traditionally, which has changed the way community members travel throughout S'ólh Téméxw, the amount of time they are able to spend fishing, and in turn this has affected the composition of fishing parties. As the composition of fishing parties' changes, so do opportunities for sharing traditional teachings and knowledge. Very important to note are the impacts to fish habitat and the waterways, which include the draining of Sumas Lake, river diversions, culverting of streams, and the change in land use that degrades water quality, all taking place within the 19th and 20th centuries, and continuing today. All of these activities greatly impact fish and fish habitat and fish populations and shifted the way in which Stó:lō are able to continue fishing.

Water quality continues to be a core factor of the current relationship between the Stó:lō, fish, habitat, and land. As Figure 5-2 illustrates, fishing continues to be linked with all the core cultural values associated with Stó:lō culture, though in some cases these linkages have weakened.

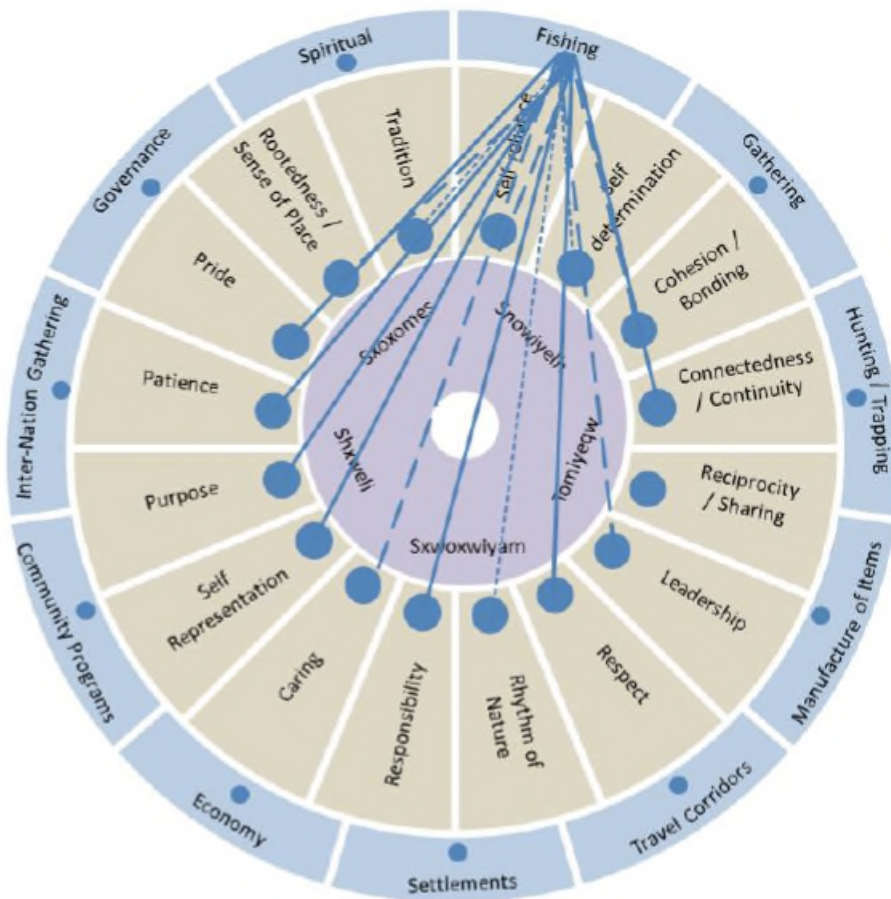


Figure 5-4 CULTURAL VALUES INSTILLED BY CONTEMPORARY FISHING PRACTICES

5.3 Gathering

Stó:lō people gathered a variety of plant materials for food, medicine, building materials, and ceremonial items. Plant gathering include a number of different activities thereby related. These activities include:

- Gathering of cedar roots, buds, and bark
- Gathering of mushrooms and wild potatoes
- Harvesting berries, nettles, crab apples, and hazelnuts
- Drying berries
- Storing (in fat/grease, in pits and canning)
- Gathering of medicines

Table 5-3 CULTURAL VALUES AND CULTURAL INPUT/OUTPUTS ASSOCIATED WITH GATHERING

Gathering			
Cultural Values	Inputs/Outputs	value changes	Contemporary inputs/ outputs
Respect	Subsistence		subsistence
Pride	Knowledge of place	↓↓	Knowledge of place
Tradition	Traditional skills		Traditional skills
Rootedness/ Sense of Place	Traditional property rights/laws	↓	Spirituality
Purpose	Customary laws of inheritance	↓↓	Wealth
Patience	Spirituality		Health
Cohesion/Bonding	Language	↓	Wealth
Connectedness/Continuity	Strength, Stó:lō World View	↓↓	Traditional Protocols
Rhythm of Nature	Health, conservation	↓↓	Manufacture of cultural materials, conservation
Self-Determination	Trade of goods	↓↓	Employment
Reciprocity/Sharing	Traditional protocols	↓↓	Selling of goods
Self-reliance	Manufacture of cultural materials	↓↓	Position at work, in community
Caring	Community health, role in community	↓↓	Personal/family health

5.3.1 Historic Gathering Practices

As with fishing, the collection of plants and medicines supported a range of values from spirituality to cultural material production that are closely linked to the socio-spatial relations. These ranged from Stó:lō from up-river to down-river and beyond to include the Coast Salish First Nations with whom there were kinship and relational ties. Gathering was a connection to the land, the natural environment, and required training and education to maintain that connection to the land, air, water within S'ólh Téméxw and to the *sxexó:mes* (Gifts from the Creator).

There is a difference between the collection of medicines and the collection of berries, and the different sites therein. Plants were gathered for sustenance, medicines, ceremonies local economies, and political relations (Schaepe et al., 2004). Gathering was tied to tradition; connectivity of ancestors; cohesion among family; keen awareness of the rhythm of nature; responsibility for the plants and community health; and connection and caring among and between families, villages, and tribes (Washbrook, 1995). Gathering linked seasonality and broad-based use of the landscape (Lyons, 2000), and connecting systems of governance associated with ancestral names; access rights and privileges; and identities (Carlson et al., 2001; Duff, 1952; Suttles, 1987).

As Figure 5-3 illustrates, historical gathering practices were associated with many of the core values associated with Stó:lō culture:

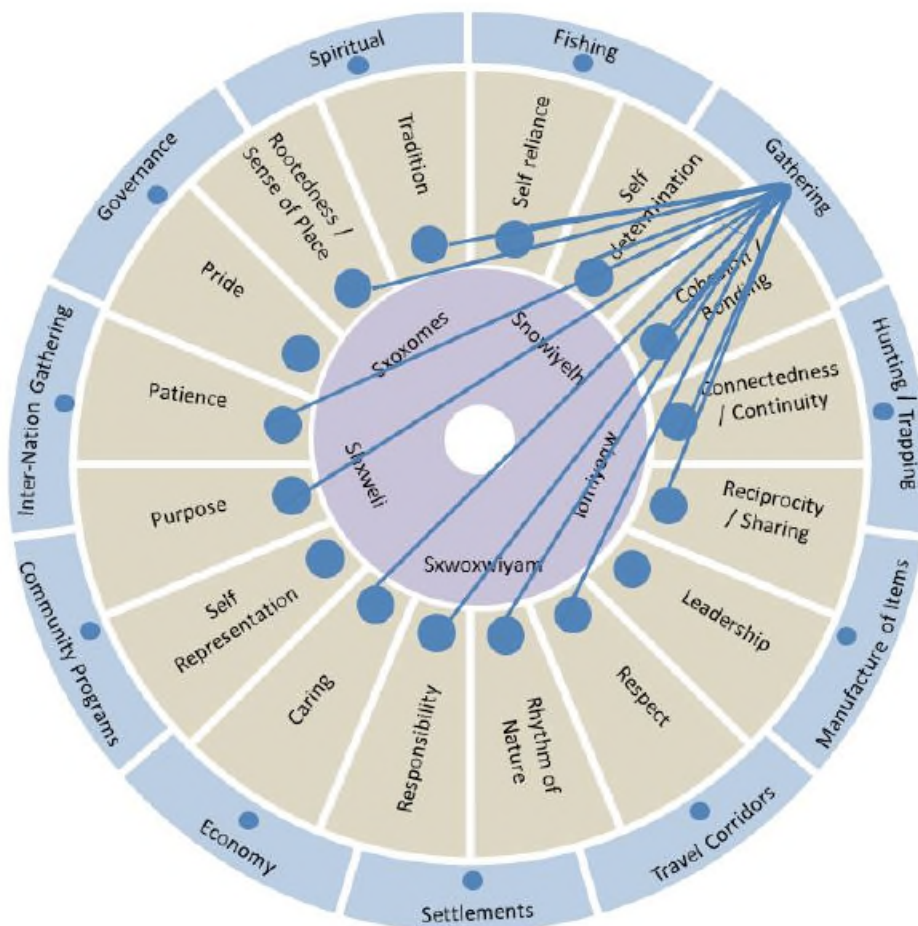


Figure 5-5 CULTURAL VALUES ASSOCIATED WITH HISTORICAL PLANT GATHERING ACTIVITIES

5.3.2 Contemporary Gathering Practices

Due to urbanization, loss of lands, development, recreation, and other activities there are fewer places available for gathering of plants, medicines, and materials. However, these activities are still an important aspect of Stó:lō culture and identity that align with Stó:lō identity. There continues to be gathering of materials for ceremonies, such as cedar, berries, tumulh, for sustenance, for cultural activities, and for the manufacture of goods. As ceremonies are reintroduced, gathering becomes

more important and critical to the cultural traditions of Stó:lō. It also increases the linkages between First Nations for particular resources and materials that grow in different areas of the Fraser River Watershed.

As Figure 5-4 illustrates, gathering continues to be closely associated with a number of key cultural values.

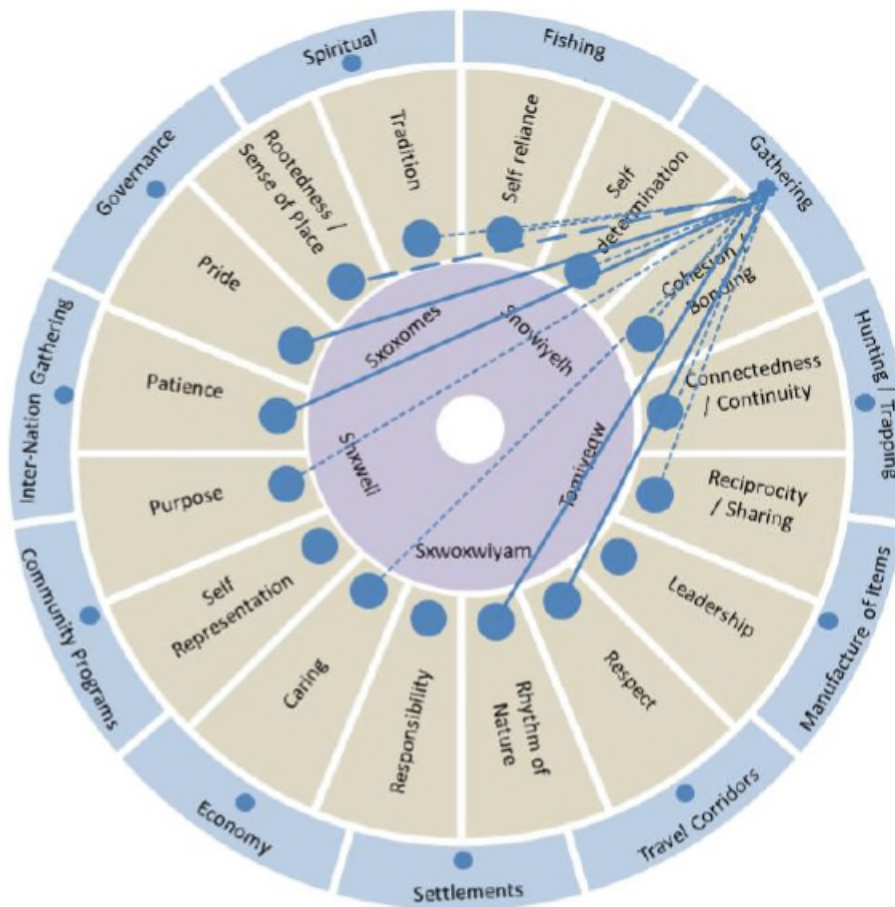


Figure 5-6 CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY PLANT GATHERING ACTIVITIES

5.4 Hunting/Trapping

Due to the limited scope of this project, this section has been purposefully left blank.

5.5 Manufacture of Items

At the core of Stó:lō culture and identity is their world-renowned skill and artistry in manufacturing a vast array of cultural items. Wherein discussions concerning this aspect of their culture, Stó:lō identified sub-activities, which then allowed for the ICA to select an appropriate range of indicators. The sub-activities identified were the following:

- Weaving
- Carving
- Beading
- Basket weaving

- Weaving (blankets)

Table 5-4 lists Cultural Values associated with the manufacturing of cultural items are listed in Table 6-5, which also includes cultural input/output associated with this activity by community members.

Table 5-4 Cultural values and input/outputs associated with the manufacture of cultural items

Cultural Value	Inputs/outputs	Value changes	Contemporary Inputs/outputs
Respect	Status	↓	Status (socio-political)
Pride	Recognition/ knowledge	↓	Recognition
Tradition	Traditional property rights/laws	↓	Health (personal and community)
Rootedness/ Sense of Place	Status (socio- political)	↓↓	Wealth
Purpose	Knowledge	↓↓	Intergenerational transfer of skills
Patience	Health (personal and community)	↓↓	Health – personal
Cohesion/Bonding	Wealth/Trade goods	↓↓	Wealth
Connectedness/Continuity	Intergenerational transfer of knowledge	↓↓	Intergenerational transfer of knowledge
Rhythm of Nature	Health, conservation	↓	Health of ecosystem
Self-Determination	Trade of goods	↓↓	Employment
Reciprocity/Sharing	Traditional protocols	↓↓	Sale of goods
Self-reliance	Wealth /Trade goods	↓↓	Wealth

5.5.1 Historic role of manufacturing cultural items

Tied to many key aspects of Stó:lō social, ceremonial, political, and economic life are cultural objects that serve specific purposes. These include blankets, baskets, mats, canoes, tools, clothes, and regalia. Cultural materials were manufactured from hand-processed locally gathered plants, animals, and fish resources. The value and use of these objects ranged from local to broad-based in terms of networks between families, villages, tribes, and inter-nation relations. A primary means of negotiating and establishing relations using manufactured cultural items was through potlatch. For the purpose of this report, this section will focus on Stó:lō traditions of weaving and carving, despite the numerous other tools and items that were traditionally manufactured. Cultural items such as blankets, baskets, mats, canoes, tools, clothes, regalia, and many other objects served specific purposes within and linked with many key aspects within Stó:lō social, ceremonial, political, and economic life. Many local plant, animal and fish resources were gathered, hand processed to manufacture cultural materials. Such objects spanned a range of

The most important of the various materials used for weaving was cedar roots. Baskets were used in many daily activities amongst Stó:lō, including the collection of berries and other plants and materials, and transportation of fish. Mats served not only as floor coverings, but as tools for carrying and preparing salmon, wrapping game, and carrying fish and game home. The skill of weaving was passed from generation to generation, and families had their own unique patterns and colours. Patience, time, and understanding of the materials were required of weavers. The importance of cedar weavings is reflected in the fact that these were often left as gifts for the Creator, particularly in cedar gathering sites.

Stó:lō carvers used traditional carving methods learned from previous generations in the production of poles, masks, and canoes. They were responsible for imparting their knowledge onto future generations. As with weaving, carving took patience and extensive knowledge of the associated materials and methods. The resulting objects, such as blankets, baskets, and ceremonial masks provided a sense of purpose, place, pride, identity, social standing, and responsibility.

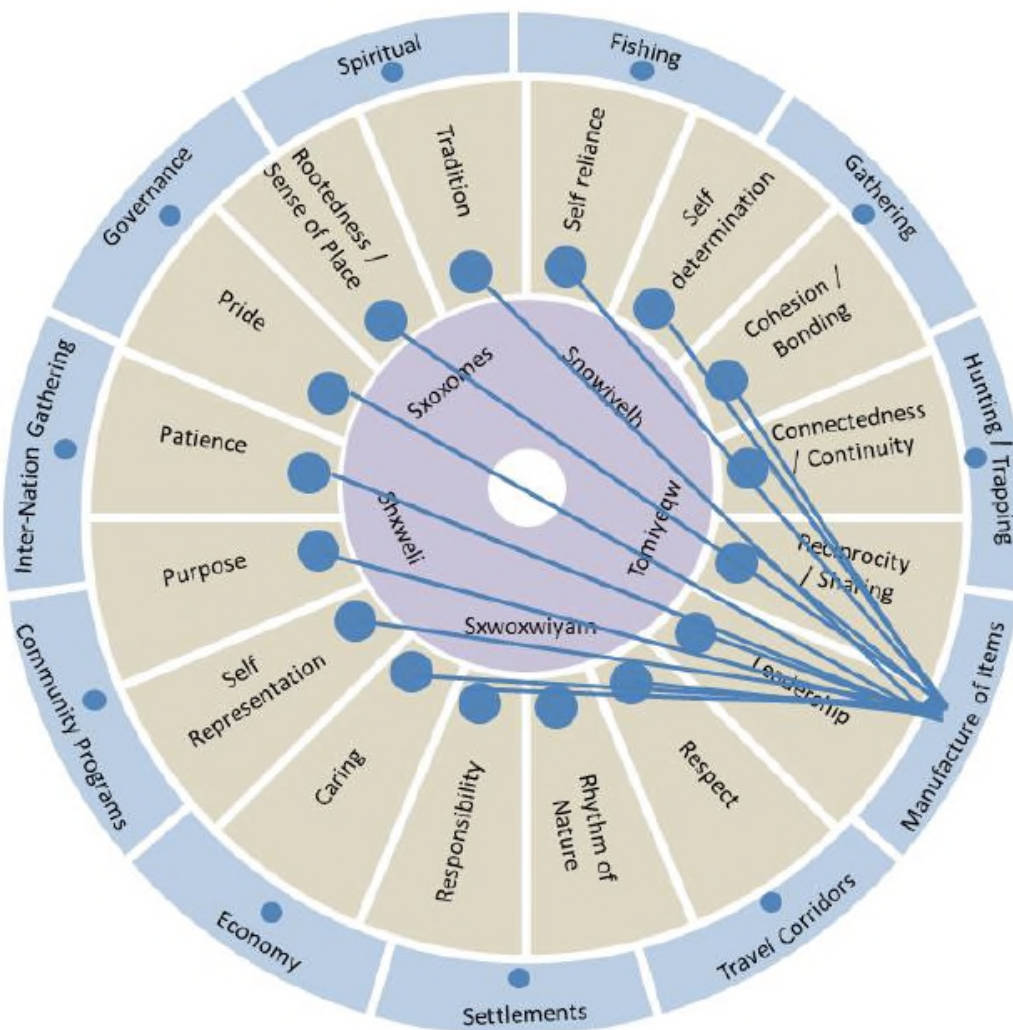


Figure 5-7 Cultural values associated with historic manufacturing of cultural items

5.5.2 Contemporary manufacture of cultural items

Many cultural items manufactured today are done with the intention of preserving a cultural connection with the past. They assist with the understanding and preservation of traditional methods and teachings. Although their uses may be more limited than in the past, many of the objects produced still serve a variety of purposes, including ceremonial and spiritual, display, economic, and household. Weaving baskets and blankets, and carving have been added to cultural programs and taught to young children to convey their value, the value of the materials, and the cultural and spiritual connection established throughout the process. Modern technologies have been incorporated in the manufacturing process for some, which involve the use of modern dyes and materials, often affecting the symbolism that was once inherent in cultural items that represent Stó:lō identity. Though few carvers and weavers remain in Stó:lō communities today, their talent, knowledge, and skillset are still highly regarded, and they are considered an important aspect of tradition.

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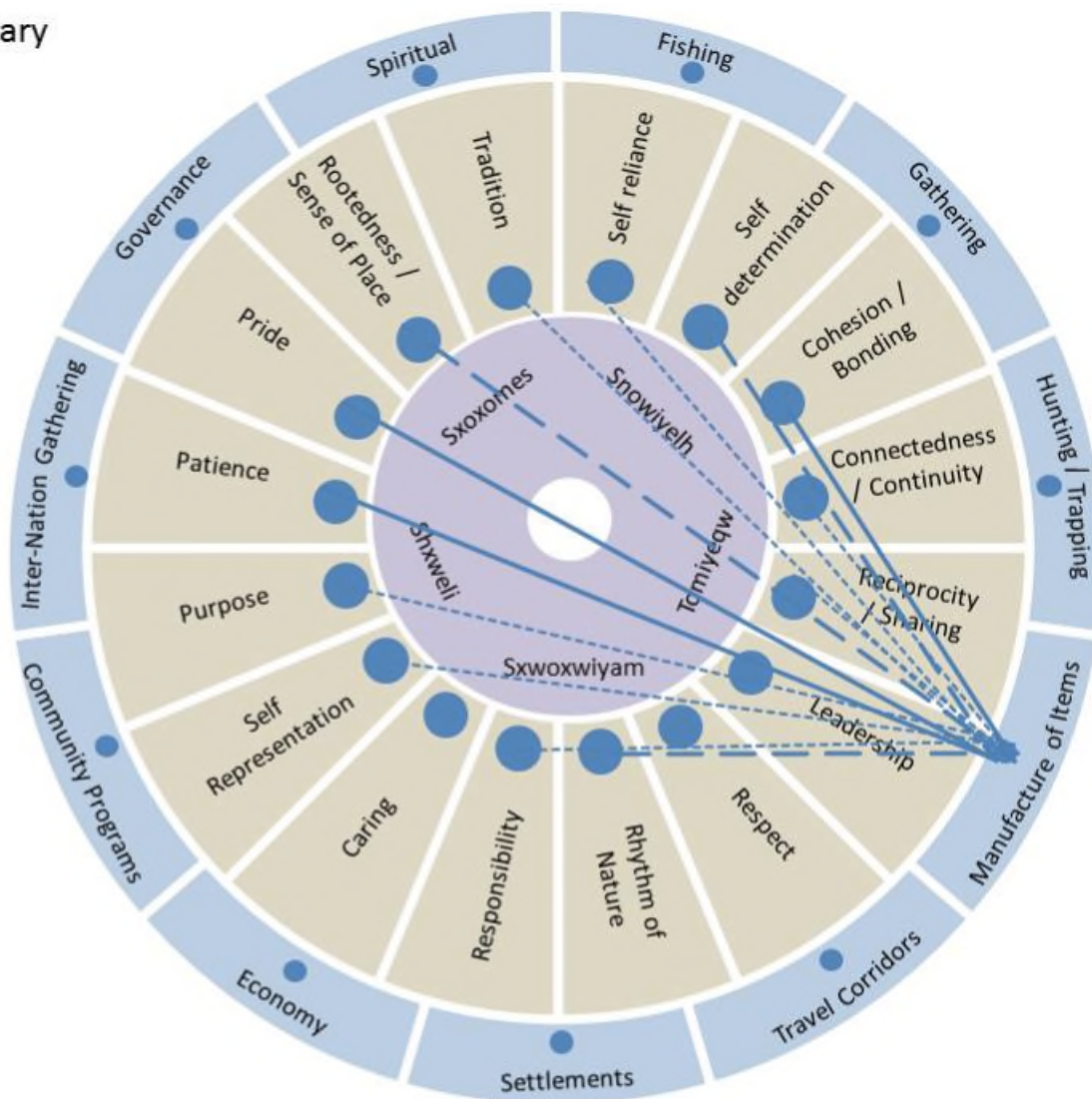


Figure 5-8 Cultural values associated with contemporary manufacturing of goods.

5.6 Travel Corridors

The network of travel corridors that connected winter villages to seasonal harvesting camps and trade routes throughout S’ólh Téméxw are a key element in the Stó:lō seasonal round of activities. Both historic trails and waterways make up these corridors. Even today, travel between communities, harvesting locations and economic ventures is integral for community members in their ability to carry out daily activities. Two sub-activities that allow the ICA to select an appropriate range of indicators were identified in describing this aspect of Stó:lō culture. They are:

- Historic trails
- Contemporary roads and infrastructure

Table 5-5 lists cultural values associated with travel corridors.

Travel Corridors			
Cultural Values	Inputs/Outputs	Value changes	Contemporary inputs/ outputs
Respect	Intergenerational transfer of knowledge	↓	Knowledge
Pride	Traditional skills	↓	Health
Tradition	Knowledge of inter-relations/family tree	↓	Family connections
Leadership	Traditional territory and potlatch	↓	Reserves and gatherings
Rootedness/ Sense of Place	Customary transfer of names, masks, songs	↓	Customary transfer of names, masks, songs
Purpose	Spirituality and governance	↓	Spirituality and governance
Responsibility	Language, conservation		Language, conservation
Cohesion/Bonding	Health of territory and each other	↓	Health of family
Connectedness/Continuity	Traditional protocols, Smilha	↓	Traditional Protocols, Smilha
Rhythm of Nature	Smilha		Smilha
Reciprocity/Sharing	Potlatch	↓↓	
Self-reliance	Role in territory/community	↓	Employment
Self-representation	Inter-nation recognition	↓↓	Workplace recognition
Caring	Kinship ties	↓	Kinship ties

5.6.1 Historic use of travel corridors

Transportation routes, trade, and communication networks were maintained and delineated through canoe travel and other means (Schaepe, 1999, 2001). The Fraser River and its tributary systems supported Stó:lō population as travel corridors and transportation both overland and along waterways

as can be seen in *A Stó:lō – Coast Salish Historical Atlas* (Thiusolac and his Father, plate 42 (c.1859); Khalserten (Bill Sepass), plate 43 (c. 1918). The riverine and montane structures of the land were used as modes of travelling and communicating, supporting wide-ranging socio-economic connections and factoring into identity (J. Miller 1999; Schaepe 2007).

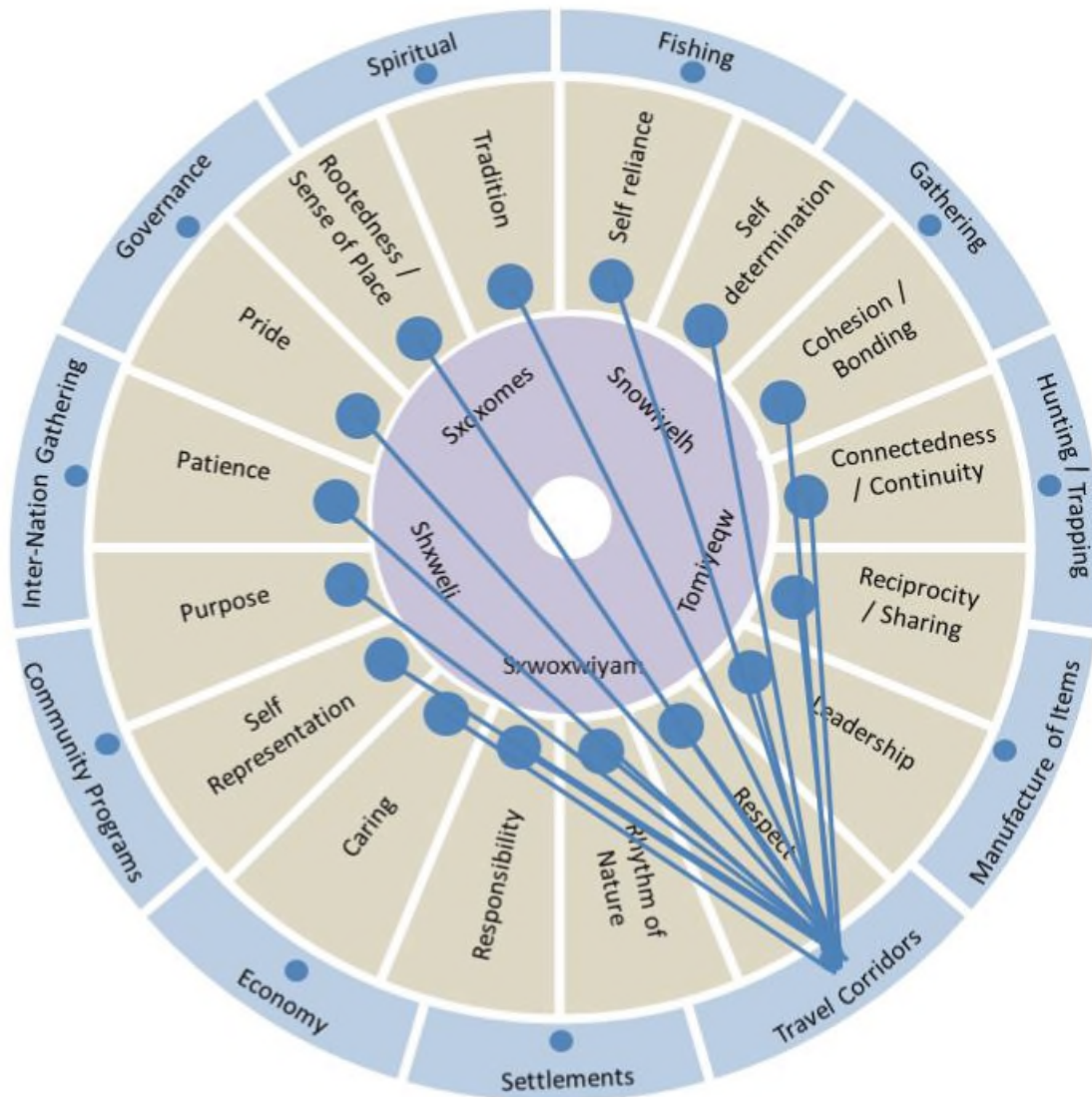


Figure 5-9 illustrates how historic travel corridors instilled most of the core cultural values.

5.6.2 Contemporary use of travel corridors

Today, travel corridors are used for commutes to work and school, and for sporting, educational, and community related activities. Traditional means of canoeing between seasonal camps and winter villages and to different Coast Salish communities such as Lummi and Nooksack for trade purposes are not reflected in today's travel corridors, roads, and highways. Cars, transit (when available), road networks, and alternative forms of transportation, including walking and biking are required for travel in

contemporary times. The need to travel on a day-to-day basis has become more commonplace for groceries, visiting other community members, and other reasons listed above. It is no longer based on the rhythm of nature. Though still in occurrence today, travel along traditional corridors for the purpose of participating in spiritual and ceremonial activities, hunting, gathering, fishing, and seasonally for wind drying activities is far less common. This does not equate to a lack of interest or desire for the use of waterways for travel or recreation purposes, but rather a number of modern influences. These include aspects of daily life, such as employment, activities and family responsibility that lead to time constraints; reduced access to sites; limitations along the river caused by speed boats; tourist development; and diversion of creeks, streams, and rivers, which have reduced the connectivity between communities.

Changes in travel corridors and even pathways on reserve continue to be caused by the development and construction of roads within S'ólh Téméxw. Gravel and paved road providing access and egress on reserve are developed disconnecting non-linear pathways. Children rarely take linear pathways of roads for safety reasons, and also to create a pattern of mobility that suits them, building confidence and independence. In investigating pathways and travel corridors, it is youth that are the most neglected cohort of the population.

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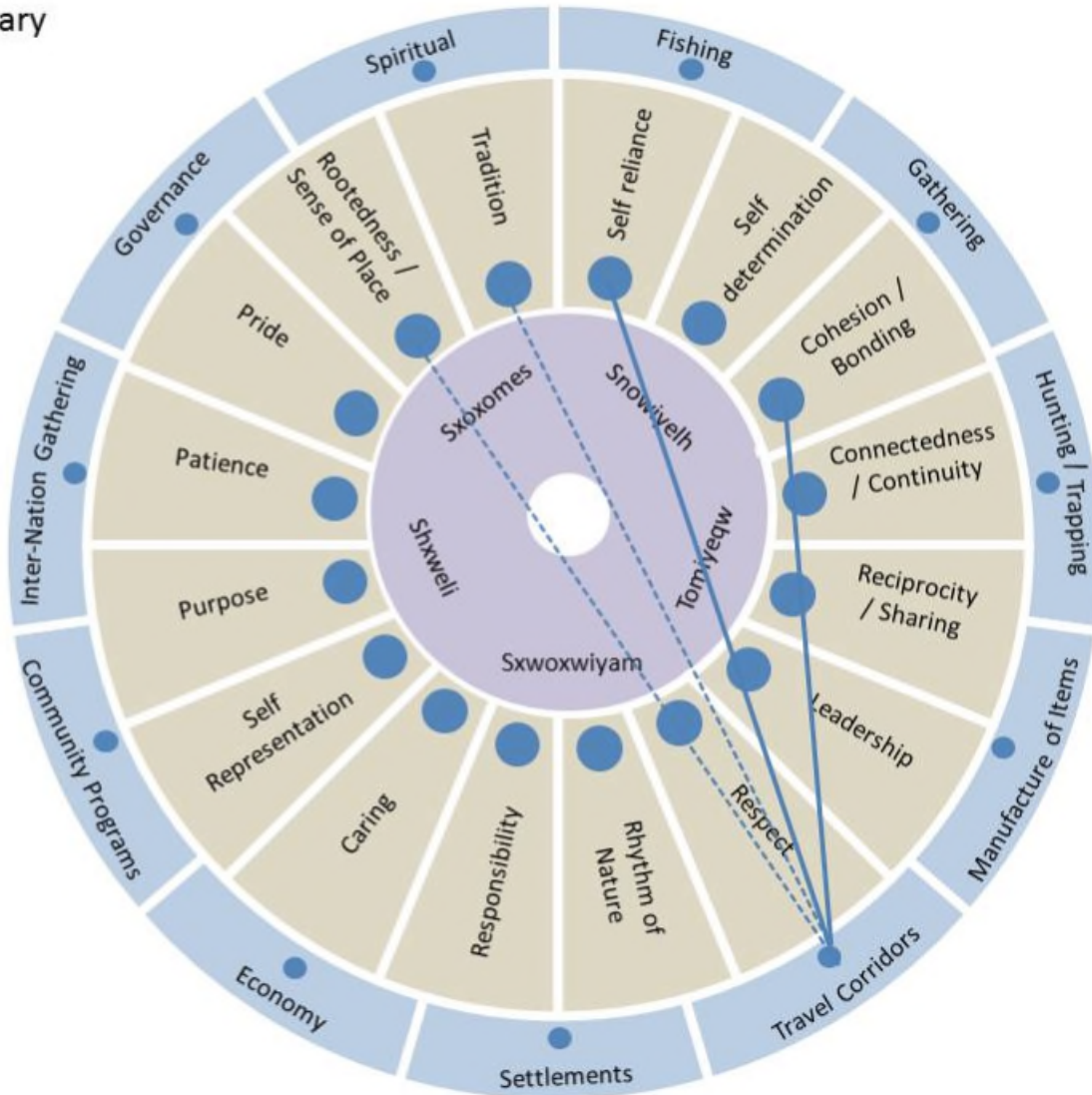


Figure 5-10 Cultural values associated with contemporary travel corridors

5.7 Settlements

- Relationships between Stó:lō communities and their relationship with *S'ólh Téméxw* are given context through patterns of human settlement. Three sub-activities were identified when considering this aspect of Stó:lō culture. These allow the ICA to select an appropriate range of indicators. The three sub-activities identified were the following: Fish and hunting camps and winter villages
- War camps and look-out points
- Burials

Table 5-6 Cultural values and inputs/outputs associated with settlements.

Settlements			
Cultural Values	Inputs/Outputs	Value changes	Contemporary inputs/ outputs
Respect	Intergenerational transfer of knowledge	↓	Knowledge
Pride	Traditional skills	↓	Health
Tradition	Knowledge of inter-relations/family tree	↓	Family connections
Leadership	Traditional territory and potlatch	↓	Reserves and gatherings
Rootedness/ Sense of Place	Customary transfer of names, masks, songs	↓	Customary transfer of names, masks, songs
Purpose	Spirituality and governance	↓	Spirituality and governance
Responsibility	Language, conservation		Language, conservation
Cohesion/Bonding	Health of territory and each other	↓	Health of family
Connectedness/Continuity	Traditional protocols, Smilha	↓	Traditional Protocols, Smilha
Rhythm of Nature	Smilha		Smilha
Reciprocity/Sharing	Potlatch	↓↓	
Self-reliance	Role in territory/community	↓	Employment
Self-representation	Inter-nation recognition	↓↓	Workplace recognition
Caring	Kinship ties	↓	Kinship ties

5.7.1 Historic settlements

Settlements were often created for the protection and function of socio-political and socioeconomic activities (Schaepe, 2006; 2009). The most common housing types found in the lower region of the Fraser Valley were pit-houses, and plank houses throughout *S'ólh Téméxw*, but different types also existed for varying purposes (Duff 1952; Graesch 2006; Lepofsky et al., 2009; Schaepe et al, 2001, 2009; Suttles 1987). Larger villages, in which plank houses were common, were created with the intention of holding community gatherings. Smaller villages, on the other hand, were placed in closer proximity to

resource gathering sites and areas of significance. Settlements supported networks of assistance and reciprocity, and many households were joined in a type of collective identity through the economic sharing of game, fish, transportation, and services, crucial to the survival of the village (Mooney, 1976). Not only literal neighbours, but neighbouring villages, and all other types of kinship throughout S’ólh Téméxw were included in this reciprocity.

As Figure 6-11 illustrates, core cultural values were instilled by living and working within historic settlements.

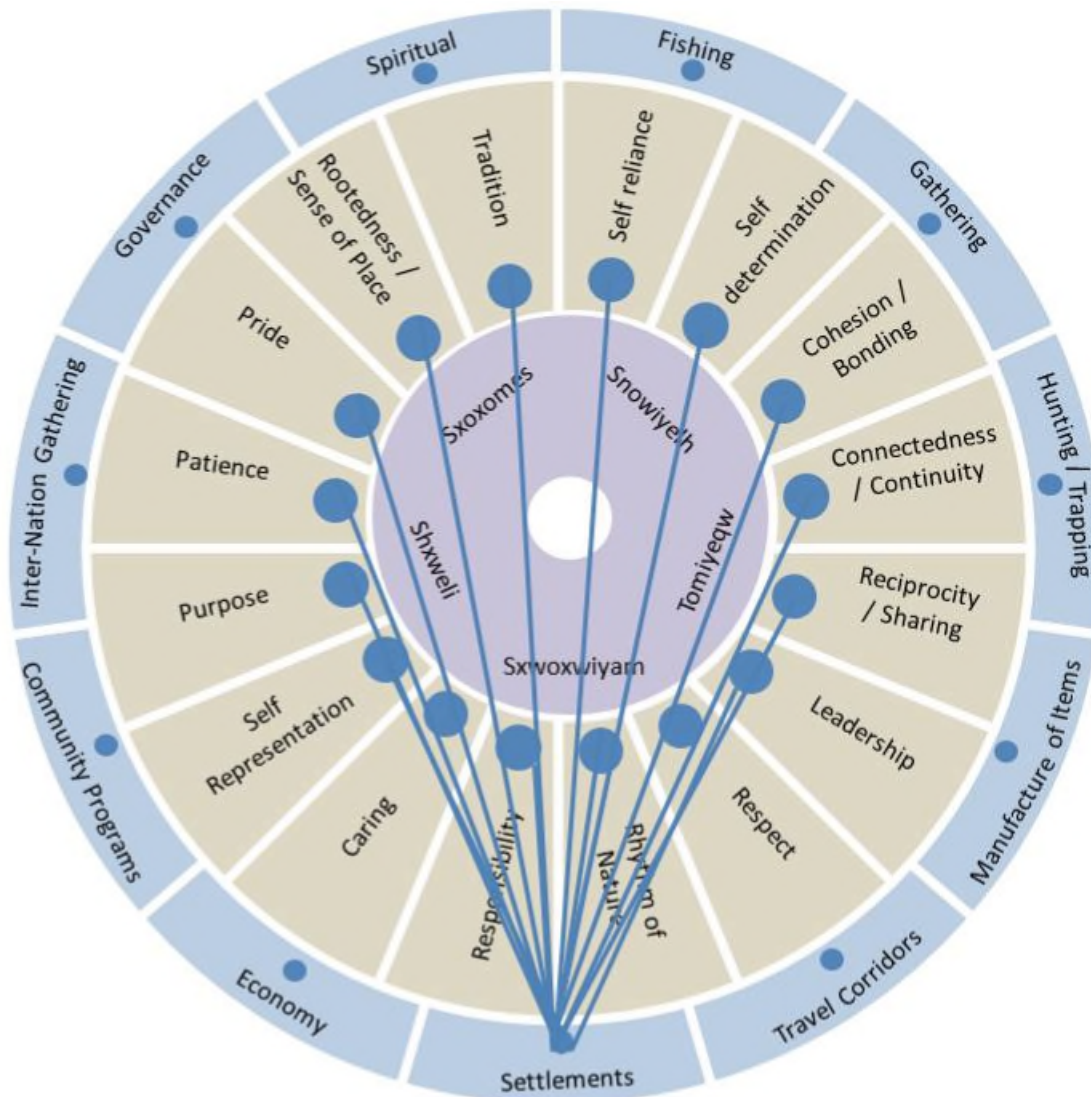


Figure 5-11 Historic settlements instilled a number of core cultural values.

5.7.2 Contemporary settlements

Contemporary settlements of the STSA First Nation members are addressed in this section. A complex issue for Stó:lō members is housing and accommodation. The majority of community members currently live off-reserve and their reasons for doing so vary from person to person. Reasons given included lack of land, infrastructure, housing opportunities, and the perception of potential safety hazards resulting from development on reserve land, including power lines, railways, and landfills. Stó:lō

citizens consistently spoke of a sense of fear experienced from living outside of their community during community engagement sessions. Community members' sense of culture and well-being is directly affected by housing and accommodation.

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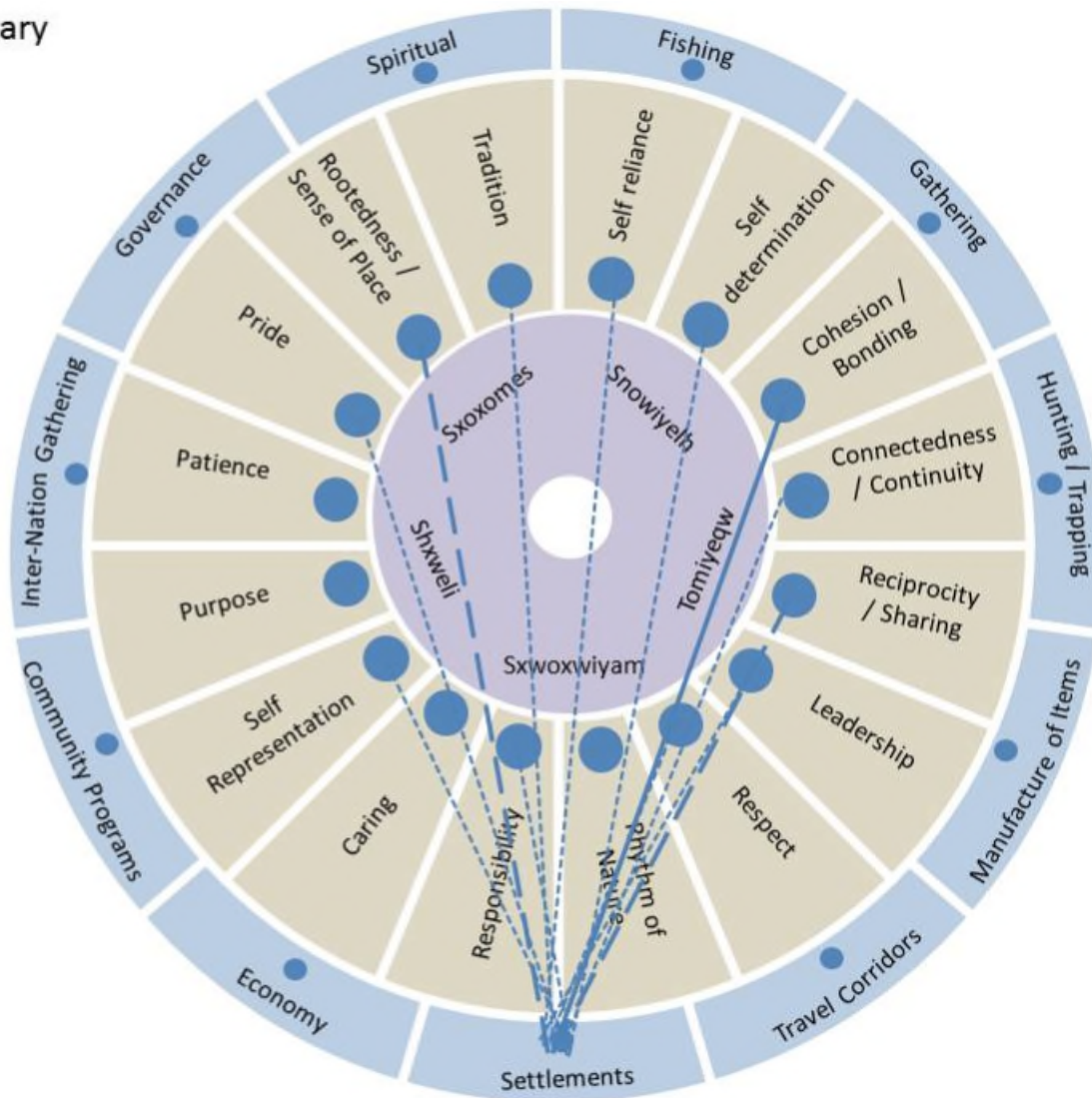


Figure 5-12 Cultural value linkages of contemporary settlements.

5.8 Economy

- Stó:lō community members have worked in a variety of economic sectors, including but not limited to the following: Logging
- Agriculture
- market gardening, leased cultivated land, hazelnut and fruit orchards
- Dairy
- Mining
- Residential / commercial development
- Commercial fishing
- Tourism
- campgrounds,
- craft/art sales
- tours/tourism

Economy			
Cultural Values	Inputs/Outputs	Value changes	Contemporary inputs/ outputs
Respect	Intergenerational transfer of knowledge	↓	Knowledge
Pride	Traditional skills	↓	Health
Tradition	Knowledge of inter-relations/family tree	↓	Family connections
Leadership	Traditional territory and potlatch	↓	Reserves and gatherings
Rootedness/ Sense of Place	Customary transfer of names, masks, songs	↓	Customary transfer of names, masks, songs
Purpose	Spirituality and governance	↓	Spirituality and governance
Responsibility	Language, conservation		Language, conservation
Cohesion/Bonding	Health of territory and each other	↓	Health of family
Connectedness/Continuity	Traditional protocols, Smilha	↓	Traditional Protocols, Smilha
Rhythm of Nature	Smilha		Smilha
Reciprocity/Sharing	Potlatch	↓↓	
Self-reliance	Role in territory/community	↓	Employment
Self-representation	Inter-nation recognition	↓↓	Workplace recognition
Caring	Kinship ties	↓	Kinship ties

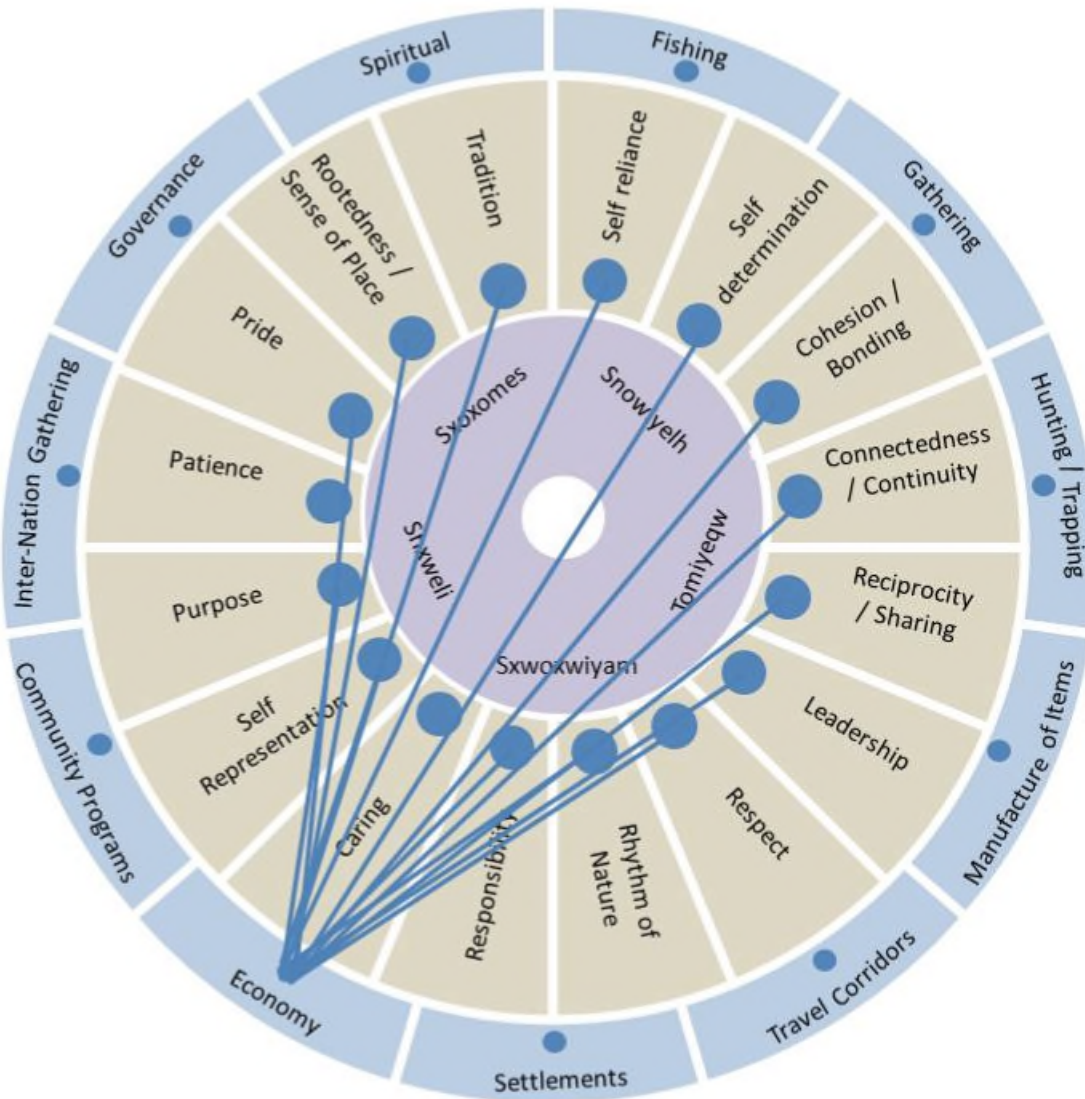
5.8.1 Historic Participation in the Economy

Social, political, spiritual and ceremonial activities, and both

tangible and intangible cultural properties were all tied to the Stó:lō economy. Fishing sites, resource patches and gathering areas, fish weirs, houses or house-planks, inherited names that carried particular privileges and rights, songs, designs, dances and histories / narratives are all examples of tangible and intangible cultural properties. Spiritual relations, status, wealth, and prestige were all connected to ownership of intangible names, songs, and private knowledge and material possessions such as canoes, weapons, slaves, clothing / blankets, and tools. A central feature of the interconnected Stó:lō political, spiritual, and material economy were potlatch gatherings. The diverse pre-contact Stó:lō economy

was built on wide-spread networks of interaction, trade, and exchange (Carlson 1996; Lepofsky et al 2009; Schaepe 2009)

As figure 6-19 illustrates, several cultural values were instilled by participating in the economy.



5.8.2 Contemporary Economy

Particularly between the years of 1827 and 1951 colonial agents, alienation from traditional hunting, fishing, and logging practices, and the outlawing of potlatch forced Stó:lō to move away from traditional forms of economy to a European-based market economy.

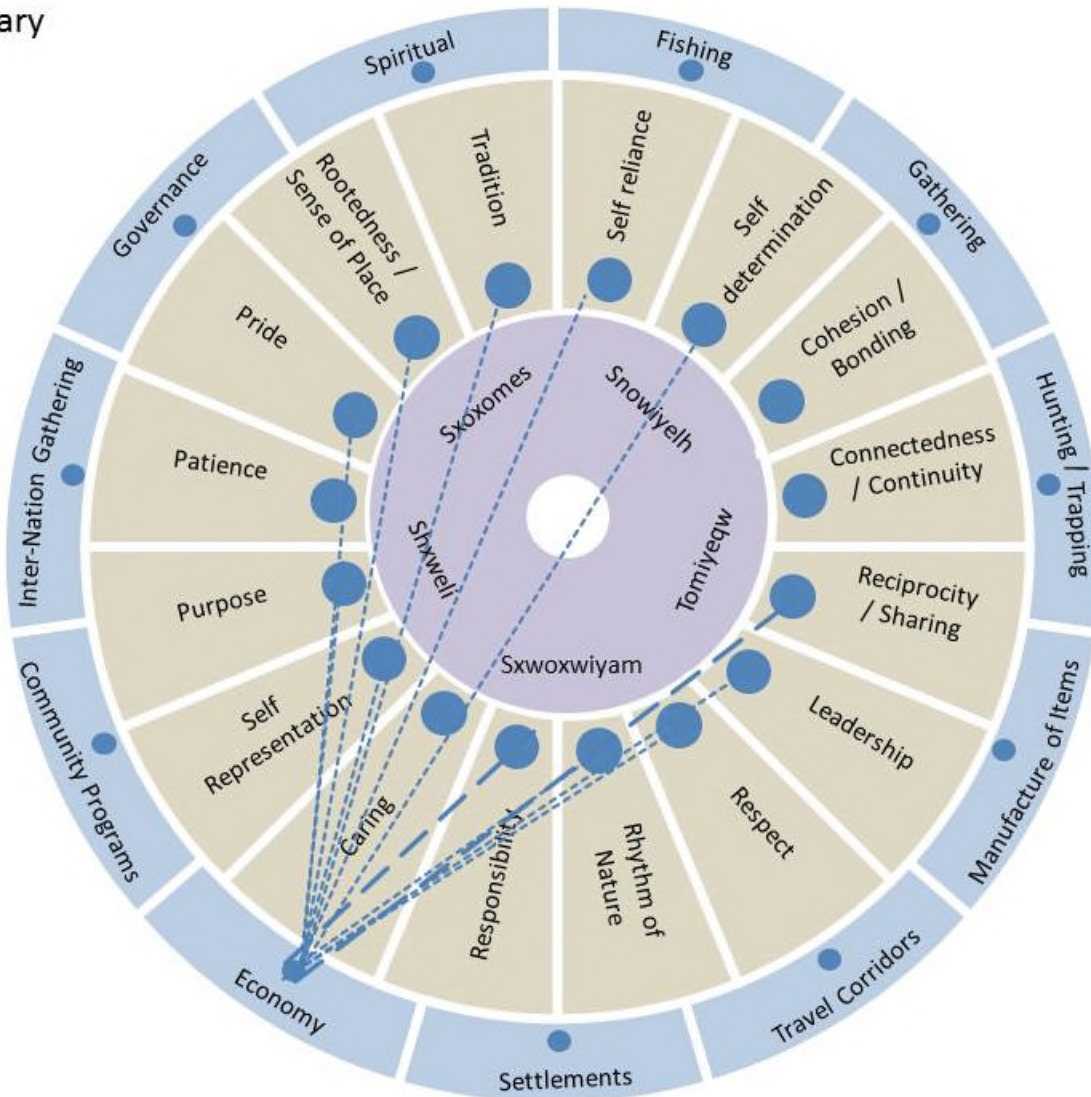
With the arrival of the Hudson's Bay Company in Fort Langley in the 1820s and onwards, Stó:lō sought new trade and commerce opportunities as they became available. Interaction with pioneer gold miners increased in 1858 and some Stó:lō people became wage labourers and transporters (Haggarty, 2009). Stó:lō people worked as labourers on farms, in fish canneries, on rail construction for the CPR, and as pilots and deck hands on steam ships after the gold rush had ended and work opportunities around it had disappeared (Carlson, 1996). Commercialized fishing and supply trading became another area in which Stó:lō people started to work.

Stó:lō men, women and children were all engaged in hop-picking throughout S'ólh Téméxw by the late 1870s (Carlson, 1996). Every Stó:lō family was participating in the capitalist work force with the development of roads, farming, canning (fish and otherwise), railway development, and general development throughout S'ólh Téméxw (Lutz, 1988). Increased opportunity to move west into S'ólh Téméxw came for Europeans by way of the Canadian Pacific Railway (ca 1885) and the valley became fertile in industry and European culture. However, for Stó:lō, culture was being greatly reduced and impacted as Stó:lō people suffered from newly introduced diseases, marginalization, and separation from their culture. The government implemented the reserve system came from an increased desire for fertile land.

Competition for employment became fierce between Stó:lō and an increasing number of immigrants with the introduction of the Indian Act, residential schools, and restriction on fisheries, hunting and licensing practices. New legislation created two-tiered pay scales; one for Chinese and Aboriginal labourers and the other for European labourers (Carlson, 1996). Influences against hiring Stó:lō included racism, contention, and stereotypes.

Stó:lō were placed into the political and economic spheres of the European world with the extreme alterations to fishing, hunting, and gathering (O'Neil, 1996). The Stó:lō relationship with Canada has been described as diasporic, and economic strife and disparity is commonplace in the Stó:lō contemporary world within the Canadian economy.

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5.9 Community Programs

Due to the limited scope of this project, this section has been purposefully left blank.

5.10 Inter-nation Relations

Cultural Values associated with the inter-nation relations are listed in Table 5-5 along with the cultural input/output associated with this activity by community members. Ties between historical inputs, outputs, and values; and contemporary input, outputs, and values are described in more details in Sections 5.5.1 and 5.5.2. These sections also illustrate how these connections can be understood within the Stó:lō cultural model.

Table 5-7 CULTURAL VALUES AND CULTURAL INPUT/OUTPUTS ASSOCIATED WITH INTER-NATION RELATIONS

Inter-nation relations			
Cultural Values	Inputs/Outputs	Value changes	Contemporary inputs/ outputs
Respect	Intergenerational transfer of knowledge	↓	Knowledge
Pride	Traditional skills	↓	Health
Tradition	Knowledge of inter-relations/family tree	↓	Family connections
Leadership	Traditional territory and potlatch	↓	Reserves and gatherings
Rootedness/ Sense of Place	Customary transfer of names, masks, songs	↓	Customary transfer of names, masks, songs
Purpose	Spirituality and governance	↓	Spirituality and governance
Responsibility	Language, conservation		Language, conservation
Cohesion/Bonding	Health of territory and each other	↓	Health of family
Connectedness/Continuity	Traditional protocols, Smilha	↓	Traditional Protocols, Smilha
Rhythm of Nature	Smilha		Smilha
Reciprocity/Sharing	Potlatch	↓↓	
Self-reliance	Role in territory/community	↓	Employment
Self-representation	Inter-nation recognition	↓↓	Workplace recognition
Caring	Kinship ties	↓	Kinship ties

5.10.1 Historic Inter-Nation Relations Activities

Gatherings that took place at an inter-nation level, such as the potlatch, served to rekindle kinship ties, promote the distribution of wealth, provide opportunities to share songs and stories, and were used to conduct important events, e.g. naming and wedding ceremonies. These events were also ideal for exchanging goods including fish, berries, wild meat, sweaters, blankets, and baskets.

The gatherings were the result of kinships and friendships throughout Coast Salish territory, and at times even beyond. Particular types of exchange took place within the realm of *Xwélmexw* (recognized or known people) whether these be through *Síya:ya* (close friends and family) reciprocal gift exchange, potlatch exchange, or market exchange (changing through distance). Outside of this geo-spatial or social-spatial domain existed the realm of *Lats'umexw* (different people) wherein warfare and raiding would occur (Angelbeck 2009; Schaepe 2001, 2006, 2009). There are over 100 Halq'eméylem words that describe the degree of “closeness” and specific relationships between people – a clear sign of exchange and the understanding of relations (Carlson, 1996, 2001; Miller, 1999).

Protection from invasion, intrusion, or war with extraneous nations found neither within *S'ólh Téméxw* or Coast Salish Territory, was also provided from inter-nation gatherings. Warfare and competition amongst Stó:lō and Coast Salish tribes did exist; however, a sense of protection was offered by means of extended family, kinship ties, and close friendships therein. Figure 5-9 illustrates several cultural values connected to inter-nation gatherings.

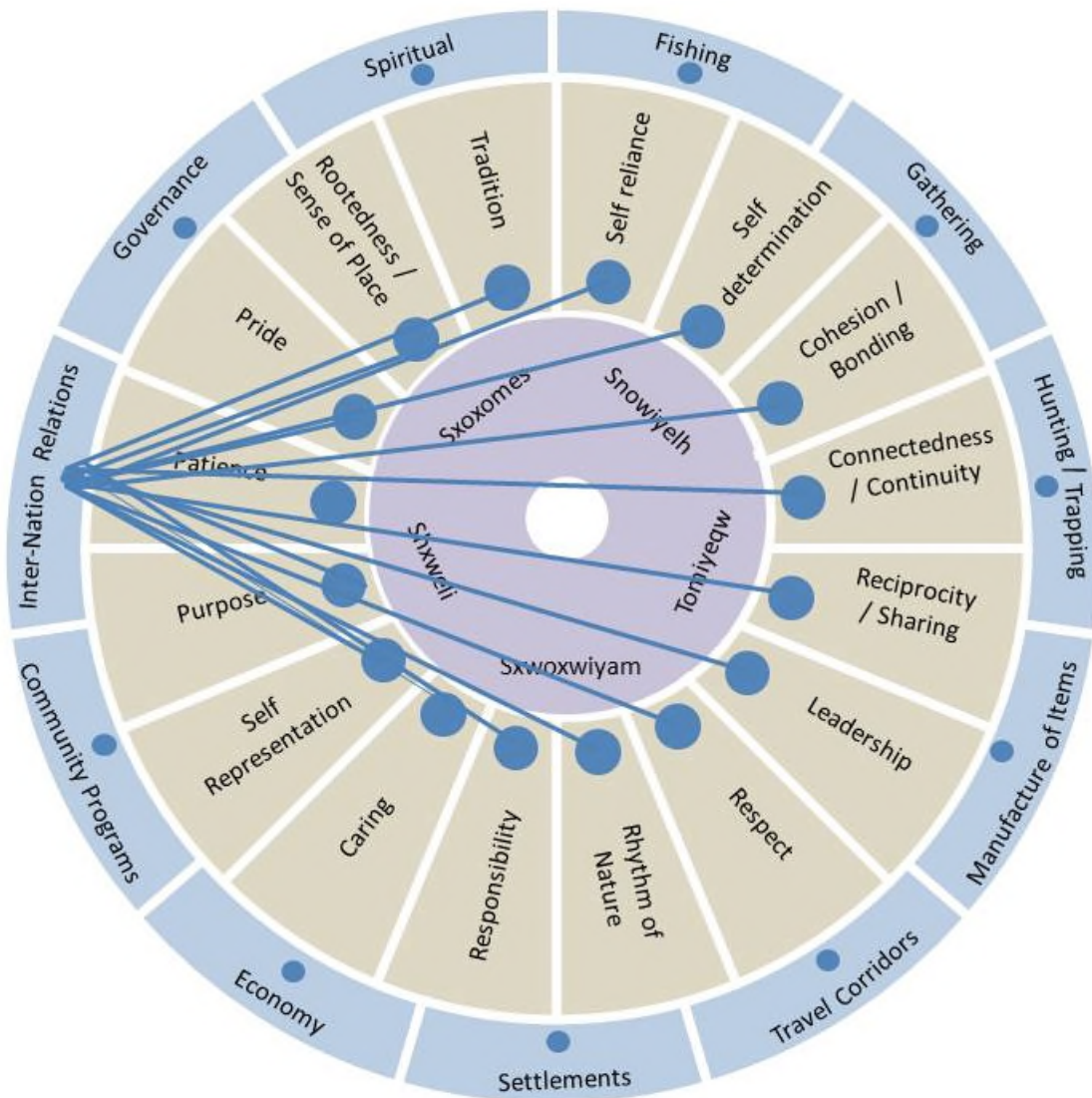


Figure 5-13 CULTURAL VALUES ASSOCIATED WITH HISTORICAL INTER-NATION RELATIONS

5.10.2 Contemporary Inter-nation Relations Activities

Even today, many First Nations experience apprehension in holding large gatherings, like potlatch, for fear of punishment, loss of cultural, spiritual, and ceremonial items, or legal action. This is a hangover from the ban on these gatherings before 1952, during which many were forced to move underground.

Gatherings provide First Nations an opportunity to unify and become involved in actions, decisions, regulations that directly affect them, their, families, and the environment. These inter-nation gatherings have become conduits of voice, governance, and cooperation in what concerns environmental protection, rights and government, and social activism among Stó:lō, other Coast Salish, national, and international First Nations.

The Coast Salish Gatherings and conferences are a leading contemporary example with over 55 Canadian First Nations and 23 US Tribes who live along the Salish Sea. The purpose is First Nations involvement and engagement in studies, conservation and protection planning, and environmental regulation. The *Paddle to Quw'utsun* involved over 110 canoes with a team of skippers and pullers comprised of youth, elders, EPA and Environment Canada representatives, and Coast Salish in response to the Georgia Basin Action Plan in 2008 where Coast Salish communities gathered for a multi-year water quality study. In sharing information, traditional and modern knowledge, and priorities as they related to the Puget Sound Georgia Basin Ecosystem, salmon, and conservation, Coast Salish members played an integral role. There was opportunity for inter-relations between elected officials, business leaders, scientists, resources managers and policymakers. As a sign of cooperation and collaboration, together for the Salish see, a map on deer hide was signed at gatherings in Cowichan in 2007 and Tulalip in 2008 by all levels of government

Numerous other gatherings provide opportunity for inter-nation discussions on quality of life, environment/alternative energy sources, housing, water, land use planning, and legal policy and procedures, which include Impact Benefit Agreements, indentures and Strategic Engagement Agreements and Referrals. Inter-nation gatherings held in response to proposed industrial developments and acts conflicting with First Nations' rights as protected internationally and nationally have become increasingly common.

In contemporary times, the goal of inter-nation relations is more focused on convening and bringing together different perspectives to understand larger issues, such as cumulative effects, Rights and Title, self-governance, et cetera, and reestablishing a collective identity and understanding.

As figure 5-10 illustrates inter-nation gatherings continue to play a role in strengthening several cultural values.

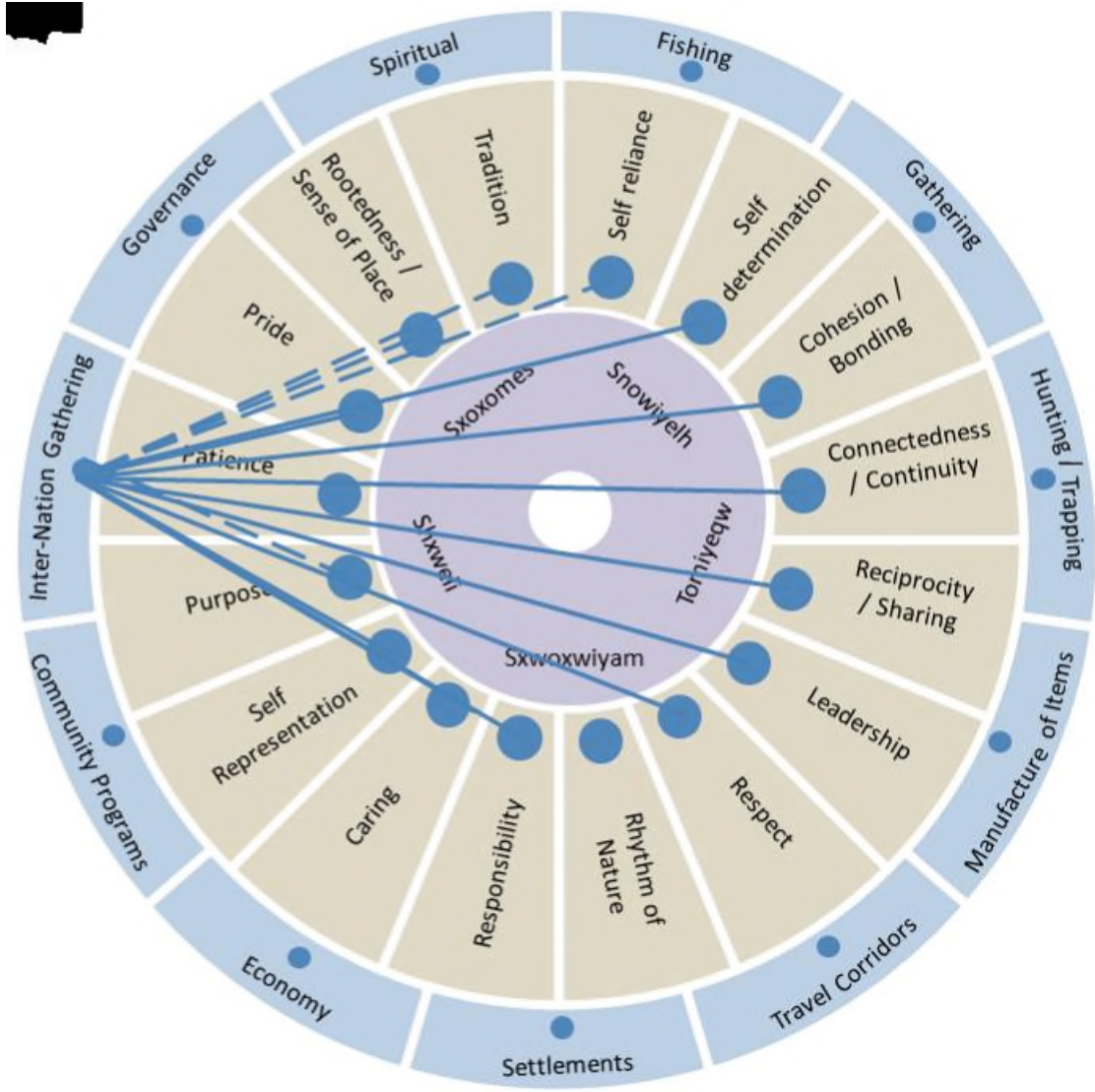


Figure 5-14 Cultural Values Associated with Contemporary Inter-Nation Relations

Index of Inter-nation Relations resources

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5.11 Governance

Understanding relationships within and between Stó:lō communities, other First Nations, other governments (Provincial and Federal), and third-party interest groups (e.g. industry), requires an understanding of governance systems. As a basis for selecting indicators for the ICA, this study focuses on factors of reconciling relationships within Stó:lō society between both traditional and foreign/imposed governance systems. Table 5-4 lists Cultural Values associated with governance as well as the cultural input/outputs community members associate with this activity. Connections between historical input, outputs, and values; and contemporary input, outputs, and values are described in more detail in Sections 5.4.1 and 5.4.2. These tables also present these linkages through the perception of the Stó:lō cultural model.

Table 5-8 CULTURAL VALUES AND CULTURAL INPUT/OUTPUT ASSOCIATED WITH GOVERNANCE

Governance			
Cultural Values	Inputs/Outputs	Value changes	Contemporary inputs/ outputs
Respect	Ability to take care of traditional territory	↓↓	Assertion of rights/activism
Pride	Ability to care for one another	↓	Ability to care for one another
Tradition	Right to Govern – traditional	↓	Right to Govern – Indian Act
Leadership	Community roles, decision-making	↓	Community roles – employment
Rootedness/ Sense of Place	Resources – management & rights	↓	Consultation and engagement
Purpose	Empowerment	↓↓	Consultation and engagement
Responsibility	Language, conservation	↓↓	Language, conservation
Patience	Teaching, learning	↓↓	
Cohesion/Bonding	Inter-nation relations	↓↓	Band relations
Connectedness/Continuity	Kinship ties, Smilha	↓	Smilha I
Rhythm of Nature	Spiritual practice	↓	Employment
Self-Determination	Teachings and lessons	↓↓	
Reciprocity/Sharing	Protocols	↓↓	Protocols
Self-reliance	Role in community	↓	Employment
Self-representation	Community recognition	↓↓	Workplace recognition
Caring	Decision-making, involvement in community decisions and programs	↓↓	Involvement in community decisions and programs

5.11.1 Historical governance

Historically, Stó:lō governance was based on a societal structure that existed on a multi-tiered level beginning with the household and extending to kinship leaders, village leaders, and to tribal leaders. It varied according to specific leadership types, duties, and activities and was based on an organized network with members of extended family or close friends among high status people (Si:yám). It is important to note that a high status in society does not equate to greater wealth in monetary or materialistic terms, but rather the knowledge of family, ancestors, and culture.

Of key importance to the Stó:lō governance structure was the collective identity of the tribe (Xwélmexw, Stó:lō or 'the People') as it maintained a purpose for inter-village marriages, kinships, trade, socio-economics, and an understanding of relations among communities. Although they faced wars and competition from other villages within their boundaries, Stó:lō were self-governing and worked together at times of hardship and war or invasion. .

Laws of inheritance and ownership of specific sites, such as fishing, hunting, and gathering passed through naming customs, meant governance was connected to the territory's available resources. At all times, though particularly during times of hardship, leaders were expected to provide for the community and to do so they had to be knowledgeable about all practices within the culture. Resource access and ownership was directly tied to leadership and governance, which were collectively tied to the individual, village, and tribal identity.

Potlatch is an example of an activity directly attached to governance structures during which identification of a name-holder, who received the inheritance and ownership rights over specific resource sites, and resolution of disputes among families or villages could occur. Building and maintaining social capital to gain access (customary rites) to specific sites was reliant on the potlatch. The Longhouse was another critical feature in governance as it was the location for particular rites and ceremonies, especially those important to future Si:yám leaders, and those who were preparing to become owners of specific sites.

Governance was based on caring, reciprocity, and leadership, which often took the form of mentoring others. A key attribute of a great leader was their ability to care for the village, which was demonstrated through the giving of gifts associated with the potlatch. Therefore, the potlatch served as a crucial setting for governance.

As figure 5-15 illustrates, many traditional values were taught and reinforced by traditional governance systems.

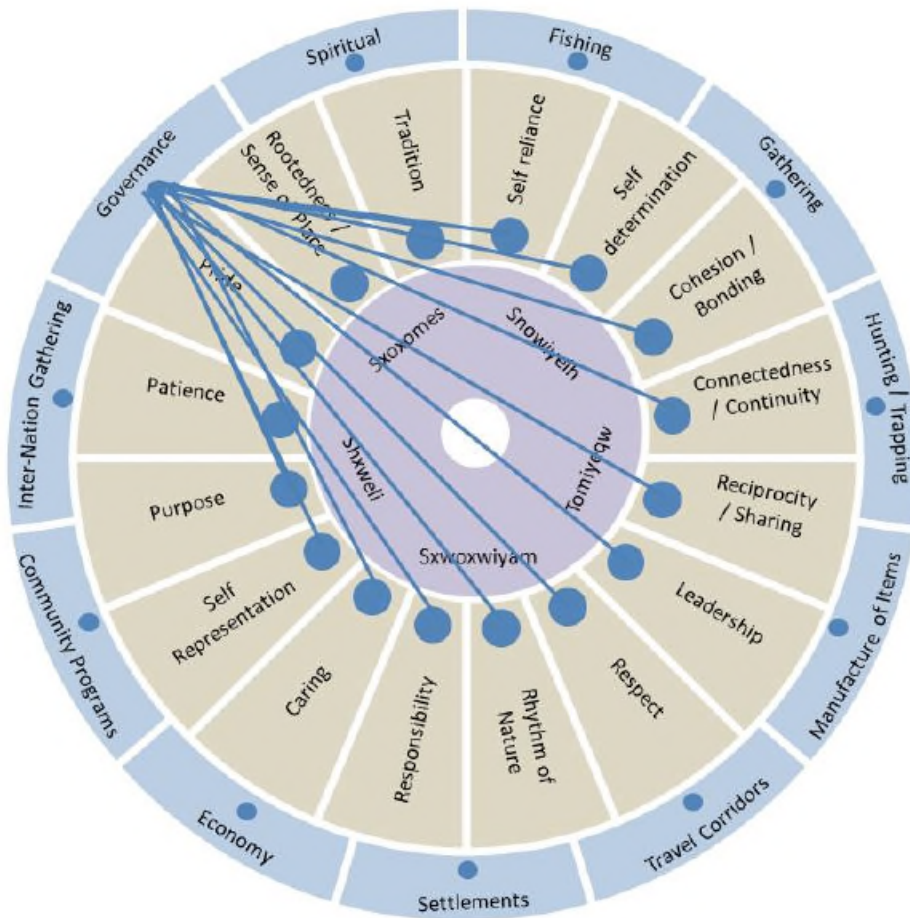


Figure 5-15 CULTURAL VALUES ASSOCIATED WITH HISTORIC GOVERNANCE SYSTEMS

5.11.2 Contemporary Stó:lō governance

Stó:lō self-governance has been devalued because of the continued fracturing of Stó:lō society, driven by colonization. The banning of the potlatch, reserve delineation, lack of movement and freedom within choice settlement areas, and the removal of appropriate leaders coming from the implementation of an electoral system have all come from colonial history. Stó:lō ability to self-govern and maintain collective ties with kin faced a numerous change in the late 1800s.

The implementation of the reserve system forced Stó:lō onto specific parcels of land owned by the Canadian government. Stó:lō community ties, kinship ties, and tribal identity has been fractured by the reserve system. Where at one time they moved freely across the territory as they please, reserves confined Stó:lō to tracts of land.

The 1880 amendment of the Indian Act and the 1869 Act for the Gradual Enfranchisement of Indians, which gave Indian Agents the power to oversee elections for chiefdom within reserves, were pieces of legislation that accompanied reserves. Indian Agents determined whether a chief should maintain office, how many councillors per reserve population, if any, a chief was entitled to, and the length of term office that could be held by a chief. The result of these infringements on the Stó:lō chief system of

governance created mistrust, inefficiency, disorganization, and mismanagement of “band” funds and community property.

The importance of the potlatch in keeping familial and kinship ties at the forefront of relations, and collective identity at the forefront of the village has been previously referenced, and therefore, unsurprisingly, the ban of the potlatch in 1885 was seriously detrimental. Kinship ties were affected even more than before and some were completely lost. Reciprocity, once at the forefront of governance, no longer played a key role, leading to the dependency of Stó:lō on the Federal government as wards of the state. Not unlike other colonially integrated governance structures, the Indigenous and Northern Affairs (INAC) electoral system has produced a highly stressed system of governance, diaspora, and an inequality of power.

An example of governance that has remained in its traditional form is governance within the longhouse, in systems associated with the longhouse. Boisselle (2011/2013) noted that there are more activities (practiced ‘underground’) that are now surfacing, fostering unification and connectivity among Stó:lō communities. Government agreements, the formation of tribal societies, such as Ts’elxwéyeqw Tribe, and governing systems that embody traditional, customary laws, and organizational frameworks are all endeavours to establish unification, self-governance, and connectivity, and demolish the structures put in place by the Indian Act.

As Figure 5-16 illustrates, many traditional values continue to be taught and reinforced by today’s governance systems.

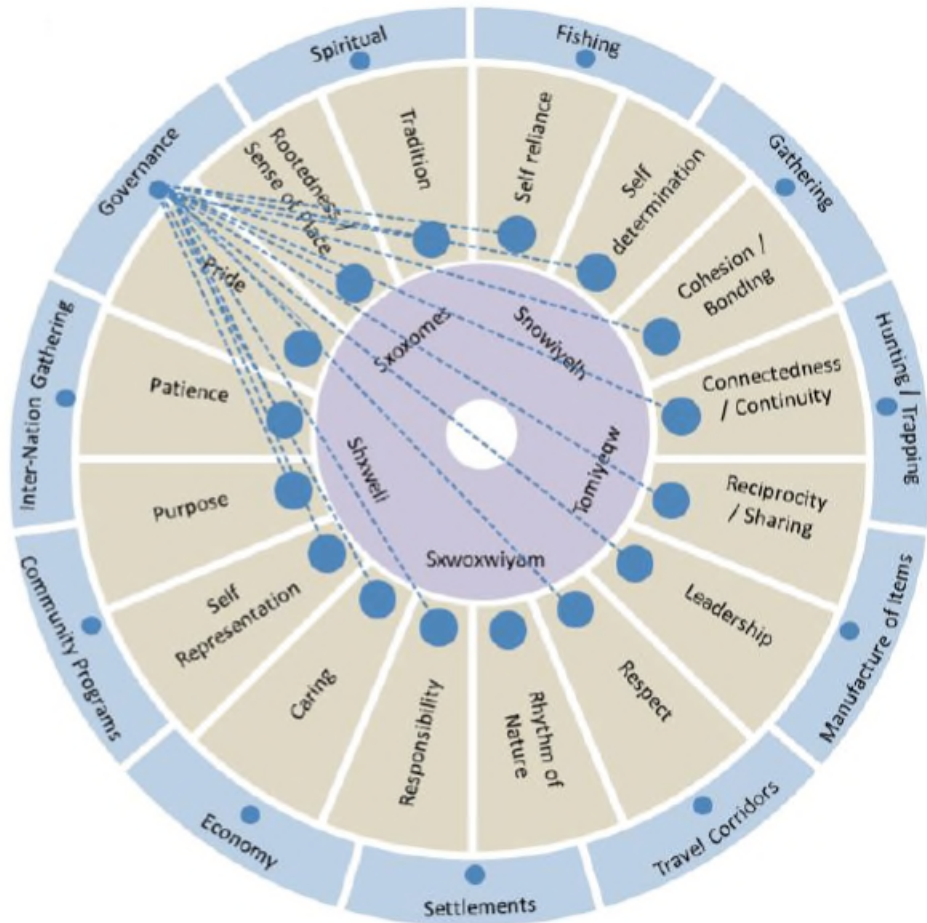


Figure 5-16 CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY GOVERNANCE SYSTEMS

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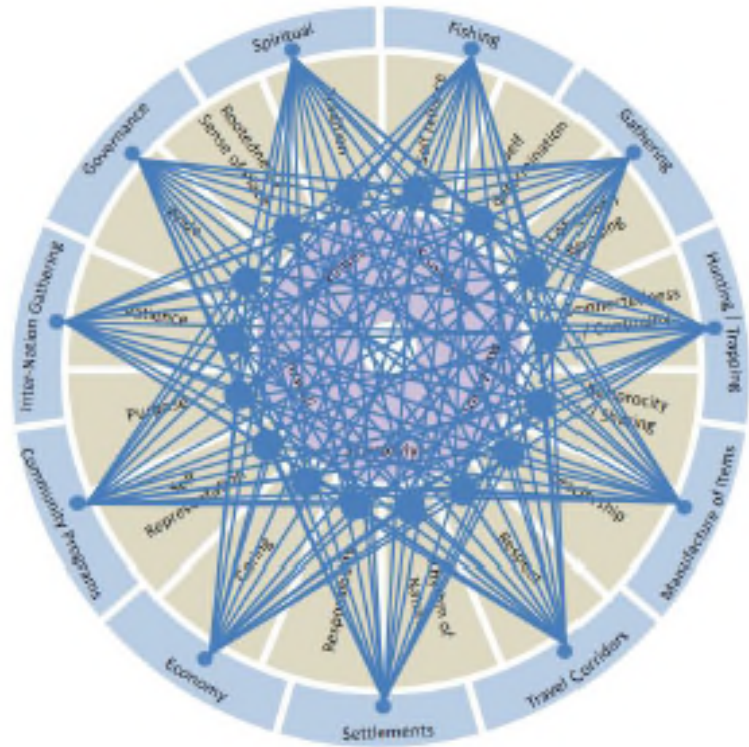
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5.12 Summary of Historical vs. Contemporary value linkages

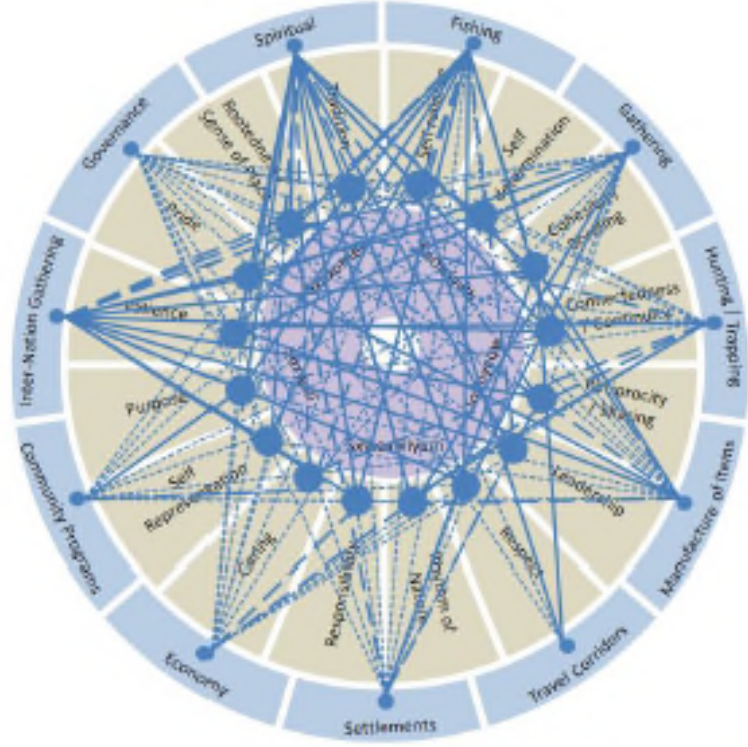
Stó:lō historical, cultural, and traditional values are inseparable for the well-being of community members. As a result, the current state of value connections and the ability of these values to be expressed today sets the foundation for the ICA and impact rating criteria to be considered in evaluating impacts from the RBT2.

Summarized in this section are the historical and modern connections between activities and the cultural values these activities instill. As illustrated in Figure 5-10, government policy, urban expansion, and industrial development (mining, forestry, hydro development, and infrastructure projects – transmission lines, roadways, pipelines and rail lines) are outside influences that have all affected Stó:lō culture over time. As such, cultural activities and their associated values have also been affected, and in some regards, threatened. Any effect resulting from RBT2 that has the potential to cause additional stress or negatively impact the existing connections to cultural values has the potential to significantly and adversely affect to Stó:lō culture.

HISTORIC



CONTEMPORARY



Strong direct link to value	—————
All common activity, but there are fewer places to carry out activity or fewer people carry out the activity	- - - - -
Only very few people carry out activity or very few places to carry out the activity	—————

3: SUMMARY OF HISTORICAL AND MODERN LINKAGES BETWEEN ACTIVITIES AND THE CULTURAL VALUES INSTILLED BY TRADITIONAL ACTIVITIES

Figure 5-11 SUMMARY OF HISTORICAL AND CONTEMPORARY LINKAGES BETWEEN ACTIVITIES AND CULTURAL VALUES INSTILLED BY TRADITIONAL ACTIVITIES

6 STRESSORS

Significant socio-Due to the number of changes within S'ólh Téméxw, Stó:lō have had a significant change in their social, cultural shifts have taken place throughout the course of Stó:lō history; however, in , political, and economic landscape. More significant are the more recent past changes have been particularly dramatic. Some of these increased developments and changes are endogenous both externally and internally to the community, whereas others result from external factors. Those external impacts . The most significantly impacting Stó:lō culture develop from pertinent of all variables of change to the community include urban settlement and industrial development., and industry, such as forestry. Other exogenously generated changes (stressors) are the product of government include policies from governments, local, regional, and federal, technology, and influences from mainstream society that have affected all Indigenous groups in Canada. Trying to clearly differentiate between cultural changes driven by the various agents affecting S'ólh Téméxw can be complicated. Some of these changes are natural progressions of society that happen internally. The following sections are intended to focus the ICA section is on the influence that industry specifically has had-based stressors on Stó:lō culture. The and heritage and will outline specific incremental and cumulative impacts and cultural shifts that communities associate are associated with the proposed RBT2 will be outlined along with expected incremental impacts. and will present expected incremental impacts and cultural shifts t.

A list of “stressors” affecting the way key cultural activities are being carried out was developed through workshops where participants discussed key cultural activities. In relation to the RBT2, the communities identified the following primary stressors:

- Alteration of water flows/water quality & quantity
- Alteration of fish habitat
- Removal of riparian and wetland vegetation
- Dust caused by construction and increased rail traffic
- Environmental contamination
- Air quality as a result of increased rail and vessel traffic
- Water quality, especially given any accident or malfunction relating to marine shipping or rail delivery
- Terrestrial (e.g., soil, vegetation)
- Health and safety – transportation corridors, settlements, and harvesting practices as a result of increased rail traffic

The following tables present the perceived and anticipated interactions between these stressors and cultural activities carried out by community members.

Table 6-1 RBT2 Interactions with Cultural Activities

Stressors affecting activities	Fishing	Gathering	Spiritual practices	Travel corridors	Settlements	Hunting & Trapping	Governance	Inter-nation relations	Economy
Alteration of water flows/water quality & quantity	X		X	X				X	
Alteration of fish habitat	X		X				X	X	X
Removal or riparian and wetland vegetation	X	X	X			X			X
Dust and particulate matter	X	X	X		X	X			X
Environmental contamination	X	X	X	X	X	X	X	X	X
Air quality	X	X	X	X	X	X			X
Water quality	X	X	X	X	X	X			X
Terrestrial (soil, vegetation etc.)	X	X	X	X	X	X			X
Increase rail and tanker traffic	X	X	X	X	X	X	X	X	X

7 INDICATORS

The complex relationships between Stó:lō, Stó:lō cultural values, cultural activities and linkages to other Stó:lō communities via longhouse and winter dance activities, economies, kinship ties, sxwōxwiyá:m, sqwelqwel, and shxwelí, is identified in the previous sections. There are many interrelated values that are reflected in the different activities and impacts to any particular activity may not be caused by any one single variable but multi-faceted variables that are interconnected through the Stó:lō World View.

Due to the interrelated, holistic perspective of Stó:lō, indicators for each activity will reflect the core values that are interlinked and will clearly identify potential impacts on Stó:lō culture. From the indicators, recommendations, accommodations, and offsets may be developed.

There are both quantitative indicators and qualitative indicators that are used in this report to identify particular impacts, their socio-cultural impact, magnitude, duration, and geographical scope will then be utilized to determine how major or minor the impacts may be. It is important to note that any type of man-made development has a direct or indirect impact on the land, water, air, and environment on a whole, that will impact Indigenous Rights and Title and cultural activities and longevity as a result.

Due to the correspondence of human impact, tangible and intangible impacts and the relations of human health and wellbeing with development activities, a qualitative approach is necessary in collecting information on indicators through the perspective of a “case study” or “case studies” to uncover and measure the complex significances of Indigenous perspectives on development and health and well-being (PFII 2006:15). Qualitative indicators will help inform the proponent and regulators to understand through an Indigenous lens and perspective to gain further knowledge and understanding of the socio-economic, political, and spiritual aspects of Indigenous knowledge, values, and activities and how impacts to such standards of cultural norm impact the individual and the larger collective.

7.1.1 1st Level Indicators: Activities

First level indicators are the values associated with each activity as outlined in previous chapters (5), and how the cultural model of Stó:lō health may be directly impacted as a result of changes to those values and activities.

7.1.2 2nd Level Indicators: describe how/why activities are carried out

Second level indicators describe how and why certain activities are carried on and what the impact of the project may be on how and why those activities are carried out, or how many people may participate in those activities as a result of the impacts.

7.1.3 3rd Level Indicators: describe industry stressors

Third level indicators are those from the activities of the proponent/industry itself, in carrying out its project, whether widening right of ways, increasing rail traffic, or increasing shipping traffic within the Salish Sea.

Of critical importance is the use of a cumulative effect assessment of other projects and on-going works within the area that may further contribute to climate change and increased outlying stressors on the project that have not been previously identified as such.

It is critical at this stage that the “weighting” of impacts and indicators is carefully reviewed as some aspects of impacts may be limited in their scope and weight of current assessment of health and well-being while other impacts may not be limited in their scope and may have more weight due to the nature of the impact.

7.1.4 4th Level Indicators: quantify industry stressors

Fourth Level Indicators include the quantification of industry stressors as they causally relate to their effects on Stó:lō Culture, with a focus on environmental impacts, land disturbance, effects on flora and fauna, water quality, air quality, viewshed, and more. These indicators specifically relate to Stó:lō indigenous ecological and cultural knowledge and community perception.

7.2 Indicators selected for the ICA

The following sections identify types of indicators that were selected for measuring external influences on culture and predicting cultural change.

Level 1 Indicators (as outlined in section 6) establish the relationships between activities, the

cultural values, and the components therein. Any further disruption or risk to fracturing those ties, may be a factor of second and third level indicators of change and would become a cause of adverse effects impacting or threatening cultural integrity.

The following set of tables list Second (2nd) and Third (3rd) level indicators for each activity.

7.2.1 Indicators for Spiritual Activities

Table 7-1 INDICATORS FOR SPIRITUAL ACTIVITIES

Indicators for Spiritual Activities – Syúwél		
Second level indicators		Third Level Indicators
Quantitative Indicators	Qualitative Indicators	Stressors
<ul style="list-style-type: none"> Types/amount/variety of traditional foods harvested each year to Syúwél practices 	<ul style="list-style-type: none"> Will future generations have access to appropriate places to do this? Will future generations understand the importance of the activity? How will people feel if they cannot access the necessary harvestable materials for Syúwél? 	<ul style="list-style-type: none"> Introduction of weeds Changes in access Alteration of water flows/water quality and quantity Alteration of fish habitat Removal of riparian and wetland vegetation Dust Pollution Alteration of migratory bird habitat
Indicators for Spiritual Activities – Sxwōxwiyá:m		
Second level indicators		Third Level Indicators
Quantitative Indicators	Qualitative Indicators	Stressors
<ul style="list-style-type: none"> # of recorded placenames in the area # of significant landmarks/tangible sites in the area Environmental integrity of places tied to stories Integrity of animal habitat tied to stories 	<ul style="list-style-type: none"> Are community members familiar with Sxwōxwiyá:m? Are community members confident that future generations will be familiar with sxwōxwiyá:m? 	<ul style="list-style-type: none"> Introduction of weeds Loss of killer whale population Loss of blue heron population Impacts to fish habitat Impact to migratory bird habitat
Indicators for Spiritual Activities – Sqwelqwel		
<ul style="list-style-type: none"> # of recorded placenames in the area # of significant landmarks/tangible sites in the area tied to family and personal history (i.e. names) Environmental integrity of places tied to family 	<ul style="list-style-type: none"> Are community members familiar with Sqwelqwel? Are community members confident that future generations will be familiar with Sqwelqwel? 	<ul style="list-style-type: none"> Introduction of weeds Changes to access Alteration of water flows, water quality and quantity Alteration of fish habitat Alteration of migratory birds' habitat

and personal history (i.e. names)		<ul style="list-style-type: none"> • Loss of killer whale population • Loss of blue heron population • Removal of riparian and wetland vegetation • Dust • Pollution
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Indicators for Spiritual Activities – Stl’áleqem

<ul style="list-style-type: none"> • # if recorded places in area associated with Stl’áleqem • # of locations of spiritual beings 	<ul style="list-style-type: none"> • Are community members familiar with Stl’áleqem? • Are community members confident that future generations will be familiar with Stl’áleqem? 	<ul style="list-style-type: none"> • Introduction of weeds • Change in access • Alteration of water flow/water quality and quantity • Alteration of fish habitat • Alteration of migratory bird habitat • Removal of riparian and wetland vegetation • Dust • pollution
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Indicators for Spiritual Activities – Shxwelfí

Second level indicators	Third Level Indicators
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Quantitative Indicators	Qualitative Indicators	Stressors
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<ul style="list-style-type: none"> • # of areas associated with salmon habitat • # of areas associated with sturgeon habitat • # of areas associated with migratory bird habitat • Blue heron habitat • Environmental integrity 	<ul style="list-style-type: none"> • How do people feel about the integrity of natural systems – air/water/land- within S’ólh Téméxw? 	<ul style="list-style-type: none"> • Dredging • Introduction of weeds • Changes in access • Alteration of water flows, water quality and quantity • Alteration of fish habitat • Alteration of migratory bird habitat • Alteration of blue heron habitat • Alteration of orca habitat • Pollution • Dust
--	--	--

7.2.2 Indicators for Fishing

Table 7-2 Indicators for fishing

Indicators for fishing - set nets, dip netting, hooking/gaffing, drifting, beach seining		
Second level indicators		Third Level Indicators
Quantitative Indicators	Qualitative Indicators	Stressors
<ul style="list-style-type: none"> • Number of waterways connected to lower Fraser River • Number of salmon-bearing waterways connected to the Fraser River that may be impacted (tides)? • Number of waterways bearing fish species or critical habitat that may be impacted (tides)? • Pounds of fish caught for ceremony • Number of recreation fishers • Pounds of fish caught commercially 	<ul style="list-style-type: none"> • What type of fish are harvested? • Why is fishing important? • Has there been a change in the fish? • Is the water healthy for the fish? • Is fishing necessary to continue? • Will future generations have the knowledge and skills to fish? • What happens to the individual, community, Stó:lō if there were no fish/no fishing? • How far would Stó:lō must go to fish? • How are Stó:lō connected to First Salmon and Sockeye Baby, Coqualeetza and other Stó:lō Sxwōxwiyá:m? • How are Stó:lō taught to fish and the important related sxwōxwiyám and protocols? 	<ul style="list-style-type: none"> • Alternation of water flow, quality or quantity • Alteration of habitat • Introduction of invasive species • Removal of riparian or wetland vegetation • Increased dust and particulate matter • Increased air pollution due to transport vehicles • Herbicide use • Increased rail and vessel traffic

Table 7-3 Indicators for fishing – wind drying/dry rack

Indicators for fishing – wind drying/dry rack		
Second Level Indicators		Third Level Indicators
Quantitative indicators	Qualitative indicators	Stressors
<ul style="list-style-type: none"> Air quality indexes (e.g. Fraser Canyon Dry Rack Study) 	<ul style="list-style-type: none"> Do people feel that their children and future generations will carry the knowledge and skills for wind drying and dry rack practices? If wind-drying and dry rack practices are lost, what is the impact on the individual, community, Stó:lō? Is this a necessary skill to be taught and continued? 	<ul style="list-style-type: none"> Increased rail traffic Increased vessel traffic Cumulative effects of multiple projects in the area

7.2.3 Indicators for Gathering

Table 7-4 INDICATORS FOR GATHERING

Indicators for Gathering Activities – Non-timber-based forest products		
Second level indicators		Third Level Indicators
Quantitative Indicators	Qualitative Indicators	Stressors
<ul style="list-style-type: none"> • Amount of habitat associated with species collected in area • Occurrence of harvesting related with in the project area • Occurrence of weeds/invasive species within the project area • Use of herbicide/pesticides that can be carried upstream • Occurrence of spills • # of known berry sites that have been contaminated due to air pollution • # of recorded drying areas in the area affected by pollution 	<ul style="list-style-type: none"> • Do you gather reeds, clams, oysters or shells? • Why do community members gather these items? • How confident are people that future generations will have the knowledge and skills to gather these items? • Do you go to the same places to gather? Why? • How do you get to your favourite gathering places for these items? 	<ul style="list-style-type: none"> • Introduction of weeds • Changes in access • Alteration of water flows/water quality and quantity • Removal of riparian and wetland vegetation • Dust • pollution
Indicators for Gathering Activities – medicines		
<ul style="list-style-type: none"> • # of known medicine harvesting sites in area • # of harvesting sites that have been contaminated due to air pollution • # of recorded drying areas in the area affected by pollution 	<ul style="list-style-type: none"> • What medicines are collected in the area? • How confident are people that future generations will have the knowledge and skills to gather medicines? 	<ul style="list-style-type: none"> • Introduction of weeds • Changes in access • Alteration of water flows/water quality and quantity • Removal of riparian and wetland vegetation • Dust • pollution

7.2.4 Indicators for Inter-Nation Relations

Table 7-5 Indicators related to Inter-Nation Relations

Indicators for Inter-nation Relations		
Second level indicators		Third Level Indicators
Quantitative Indicators	Qualitative Indicators	Stressors
<ul style="list-style-type: none"> List of Stó:lō First Nations List of non- Stó:lō First Nations in the area List of Coast Salish Nations in the area # of inter-nation meetings/gatherings held (such as Salish Sea, Coast Salish, Winter Dance/ Longhouse activities) 	<ul style="list-style-type: none"> Levels of interest in how other Indigenous communities perceive the RBT2 Sense of responsibility toward the health and welfare of their communities Sense of shared responsibility to the sxexó:mes within S'ólh Téméxw 	<ul style="list-style-type: none">

7.2.5 Indicators for Economy, Manufacture of Cultural Goods, Travel Corridors and Settlements

The Indicators for Economy, Manufacture of Cultural Goods, Travel Corridors and Settlements are directly tied to those related to spirituality, fishing, and gathering.

7.3 Fourth Level Indicators

Table 7-6 Indicators associated with stressors as selected for RBT2

4 th level indicators associated with RBT2	
3 rd level indicators	4 th level indicators
Alteration of fish habitat	<ul style="list-style-type: none"> # of traditional waterways impacted dredging requirements (rivers and oceans) total riparian habitat lost or altered (m²) from each waterbody # of spills/yr. time (hrs.) to respond to incident time (hrs.) to contain incident time (hrs.) to remediate soils/water affected

	<ul style="list-style-type: none"> • reporting to First Nations administration/affected community members • area of intertidal and marine habitat altered or permanently destroyed
Removal	<ul style="list-style-type: none"> • # of traditional waterways impacted • total riparian habitat lost or altered (m2) from each waterbody • loss of habitat (cultural keystone species) or % land disturbance/indicators habitat type • Marshes/water bodies with daily flow; short term water fluctuations w/ silty/clayey muds • Loss of archaeological sites • Proximity to spiritual areas
Dust	<ul style="list-style-type: none"> • Increased particle matter in air • Increased pollution on wind-dried fish • Determinants of health and well-being • Change in local atmosphere and climate
Pollution – spills (rivers/creeks)	<ul style="list-style-type: none"> • # of spills/yr. • time (hrs.) to respond to incident • time (hrs.) to contain incident • time (hrs.) to remediate soils/water affected • reporting to First Nations administration/ affected community members • Emergency response times • spill risk assessment scenario evaluation*
Pollution – spills (ocean)	<ul style="list-style-type: none"> • # of spills/yr. • time (hrs.) to respond to incident • time (hrs.) to contain incident • time (hrs.) to remediate soils/water affected • reporting to First Nations administration/ affected community members

8 Stó:lō Concerns and Interests Regarding Roberts Bank Terminal 2

Although direct impacts associated with the Project may reported as negligible, the cumulative effects of development on the Salish Sea will have serious impacts as outlined below:

1. Outlook of the species, particularly Orcas (Southern Resident), due to vessel strikes and underwater noise.
2. This difference in worldview shapes how the effects of the proposed Project Indigenous members, communities, and health and well-being are measured is inclusive of many aspects of the assessment, including scope, value components, methodology, interpretation, mitigation options and interpretation of impacts and measures of success.
3. Cumulative effects of current and potential future developments in and near the Salish Sea and the Fraser River, including that of the Trans Mountain Expansion Project and the current EAS of the FortisBC LNG Terminal Expansion Project. The cumulative effects assessment within this study supports the use of a pre-settler baseline,
4. Migratory birds and any impacts to migratory bird harvesting that increases the already poor harvesting abilities.
5. Impact to marine water quality in the Salish Sea, resulting from project activities i.e. dredging, increased vessel traffic and spillage.
6. Air quality as a result of increased rail and vessel traffic, dust and other pollutants, and worsening effects to climate change especially in light of :
 - a. Representation of real-world conditions
 - b. omission of PFCs, HFCs, and SF6 in assessing GHGs (CO2, CH4, and NO2 were listed)
 - c. current exceedance of O3 levels with the project contributing to higher levels
7. Stormwater pollution as a result of increased surface runoff, without capture (use of bioswales or other methods) at the terminal or causeway, leading to contamination and human and environmental health issues
8. Geomorphological and sediment changes in the area as a result of change in natural systems, including the dynamic and complex nature of the Fraser River and its tidal activity up to Harrison/Mill Bay.

9 Stó:lō Impact Assessment and Rating

9.1 Impact Rating Criteria

The Stó:lō model will portray RBT2 impacts using different line types and colours with the model portraying our findings in a more traditional and easily understood fashion.

Table 9-1 Line types showing the strength of linkages between an activity and a value.




Line type	Meaning
	Many Stó:lō members continue this activity
	Fewer Stó:lō members continue this activity
	Very few Stó:lō members continue this activity

Table 9-2 Line colours showing the different variations of impact severity.

Colour	Meaning
Red	Highly Significant Adverse Effect
Yellow	Moderately Significant Adverse Effect
Green	Moderately to significantly Positive effect
Gray	No impact at all

9.2 Socio-cultural Impact

Socio-cultural refers to the number of Stó:lō who may be affected or impacted by certain activities or impacts of the project.

Table 9-3 Socio-cultural impact - number of people impacted and description

Number	Description
Individual	One person
Family	Family or extended family (beyond biological, as may be longhouse family or other cultural ties)
Village	Group of families in one cohesive area or unit
Tribe/Watershed	Members of a tribe, as multiple villages, that are generally connected to a Watershed
Nation/Multi-tribal/Multi-watershed	Affecting for than one watershed or a number of different Tribes, such as Stó:lō, Coast Salish, Interior Salish

9.3 Magnitude

Magnitude is the size of the change that may occur. Magnitude refers to the size of change that is expected to occur.

Table 9-4 Magnitude is the range of change from the baseline to the impact

Size of Change				
High	Medium	Low	None	Positive
Substantive change from baseline	Moderate change from baseline, but with significant impacts	Little change from baseline, negligible impacts	No change from baseline	Positive change from baseline from little to substantive

9.4 Geographical Extent

The geographical extent refers to how far the project impacts may reach, for example, air quality impacts do not have a boundary so are multi-regional in their geographical extent.

Table 9-5 Geographical extent of impacts from local to regional to multi-regional

Geographical Extent		
Multi-regional/National	Regional	Local
Beyond a specified region, i.e. watershed based Tribal Unit	Beyond the site-specific area	Site-specific area

9.5 Duration

Duration refers to the length of time an impact may last as a result of the stages of development, construction, operation, decommission, which can range from immediate to long-term impacts.

Duration	Environmental, socio-Cultural Aspects
Short-term	Less than the duration of construction in a localized area or throughout S'ólh Téméxw
Medium-term	Lasting through construction and up to three years after, including operations.
Long-term	Remaining through the lifecycle of the project and potentially beyond decommission.

9.6 Importance

The importance of the predicted residual impacts is determined by considering the impact magnitude, geographic extent and duration. The level of importance of impacts are described as minimal, low, medium or high.

Table 9-6 the varying degrees of importance both environmental and socio-culturally.

Importance	Environmental, Aspects	Socio-Cultural Aspect
Low	Slight decline in resource	Slight decline in use of resource or activity
Medium	Noticeable decline in resource	Noticeable decline in use of resource or activity
High	Threatened resource - non-sustainable recovery	Threatened loss of use of resource or activity

9.7 Likelihood

Likelihood describes the probability of an event occurring, or the probability of impact on an activity or resource.

Table 9-7 the varying degrees of likelihood that an event may occur or that the specific resource use or activity will be impacted

Likelihood	Environmental, Aspects	Socio-Cultural Aspect
Unlikely	No probable impact on environment or resource	No probable impact on use of resource or activity
Likely	Probable impact on environment or resource	Probable impact on use of resource or activity
Very Likely	Common impact on environment or resource	Common impact on use of resource or activity

9.8 Significance

Significance is determined by the projects ability to conform and mitigate impacts to the Stó:lō world view and the perspective of cultural longevity and protection. Significant impacts are identified through the investigation of the importance of the impacts on environmental and socio-cultural aspects. An impact would be considered significant if it weakens a cultural value attached to an activity to the point that it is compromising the objective.

Significance was determined by reviewing the importance of the impact – low, medium, or high, and how likely the occurrence of impact would be – unlikely, likely, highly likely, as shown in the table below. Other determinants to consider would be the duration, the magnitude, and geographical extent. For the purposes of this study, we will be determining significance through the importance and likelihood of occurrence.

		Likelihood		
Importance		Unlikely	Likely	Highly Likely
	Low	No to low impact - negligible	Moderate, adverse effect	Moderate adverse effect
	Medium	Moderate, adverse effect	Moderate, adverse effect	High significant adverse effect
	High	Moderate, adverse effect	High significant adverse effect	High significant adverse effect













9.9 IMPACT SUMMARY

As previously discussed, the Stó:lō World View is based on the connectivity of all things through their life-force (Shxwelí) and their relation to the Creator (Xa:als) as gifts (Sxexó:mes) to the Stó:lō. Their values come from their teachings from their ancestors and the Creator in how to take care of all that belongs to them as a collective, as a tribe, as a village, as an individual. Each filled with the responsibilities and teachings that have been passed down to them through their elders and knowledge holders.

The delicately balanced world of the Stó:lō, because of its interconnectedness, is susceptible to being affected at many points along this system of inter-relations with the result of ‘imbalance’ (Schaepe et al 2009). Imbalance amounts to the disintegration of identity, health, world view, and, ultimately, an erosion of Stó:lō culture itself and potentially leading to the loss of life of the individual either through suicide, additions, or mental illness. .

Since the time of colonialism, the outside forces of government policy, urban expansion and industrial development has greatly, and negatively, affected Stó:lō culture, which anchors the individual to their history, traditional and cultural values, and their understanding of themselves, their place, and their families.

The Stó:lō Cultural Model illustrates the strength of the linkages between Stó:lō values and cultural activities by using a variety of different line types (solid, long dashed, short dashed) and utilizes different colours to highlight how the linkages may be impacted by the RBT2.

Colour Legend for Cultural Model and Cultural Values Tables			
Red Highly Significant Adverse Effect	Yellow Moderate Significant Adverse Effect	Green Moderate or Highly significant Positive effect	Grey No significant effect.
			
			
			

9.10 Potential impact ratings – non-mitigated

Potential impacts on spirituality and fishing are high (figures 25 and 26) with the activities related to the Roberts Bank Terminal 2 expansion project due to the potential impacts to air quality, water quality, riparian habitat, and fish and fish habitat.

Given the number of projects that are ongoing along the Fraser River, the cumulative impacts cannot be ignored, nor reversed to a sustainable outcome for spirituality and fishing, without specific mitigation.

Fish habitat, water quality and riparian vegetation are critical to the survival of fish and the practice of fishing. Fishing has specific relations to food, social, and ceremonial activities, and are especially important to Stó:lō – a Salmon people, a People of the River.

Air quality and water quality also have a specific relationship to spirituality, not only through the ancestors of Salmon, transformation stories regarding Orca Whales, landscapes, Sturgeon and others, but due to the need for pristine water and air in spiritual activities, such as fasting, bathing/cleansing, etc. and the wind drying activities of Stó:lō. Without mitigation there can be great harm to Stó:lō and a high level of impacts to fishing and spiritual activities.

Potential impacts on other activities are seen as minimal or unchanging from the contemporary perspective. Inter-nation relations (figures 27 and 28) do not change as a result of the project or its impacts.

Potential impacts that may cause a moderate impact on Stó:lō is the increased rail transport through the communities, that directly impacts the governance of the community and the First Nation governments in protecting their members from noise and dust pollution, safety from rail accidents and suicides (figure 28).

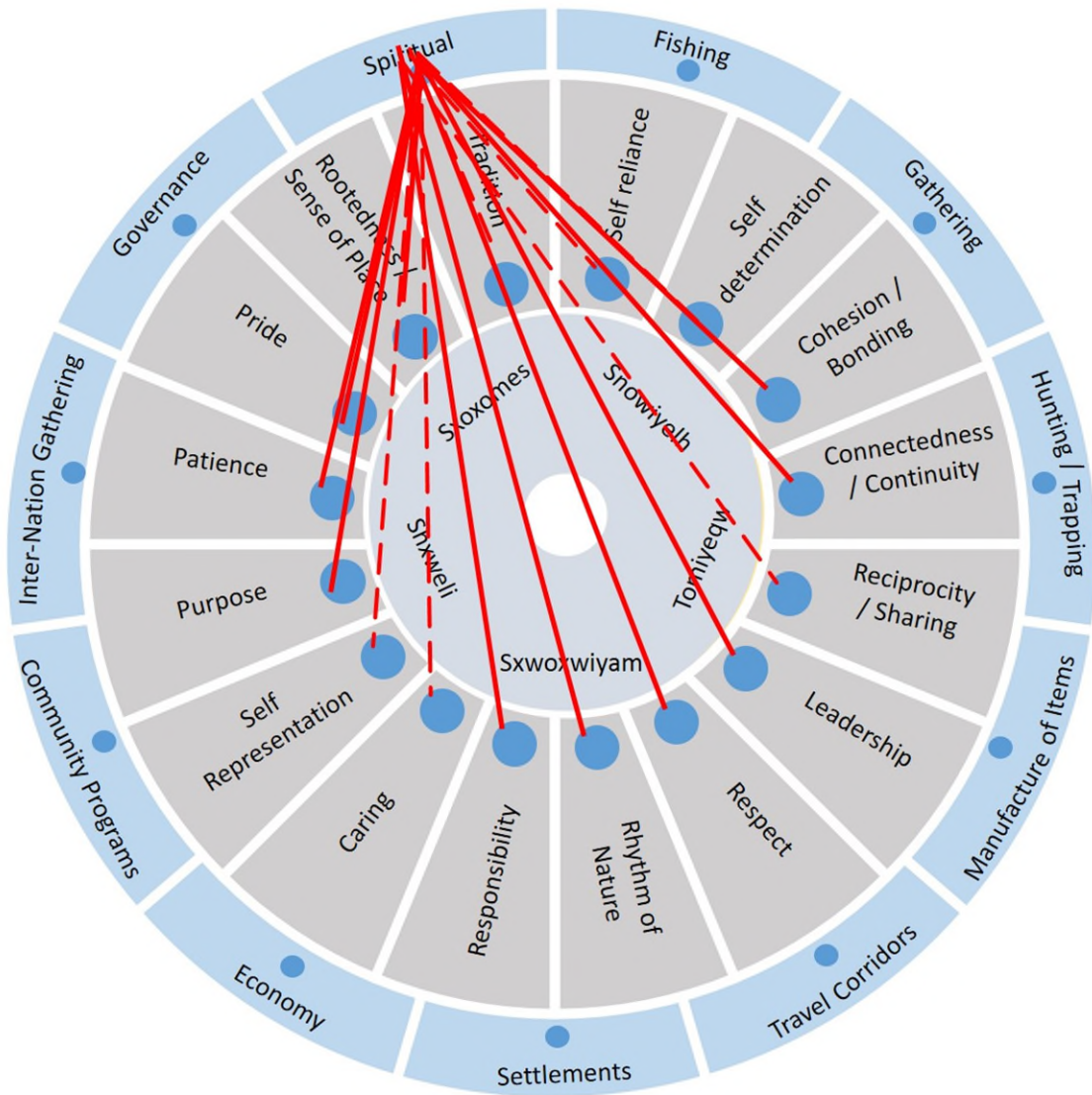


Figure 18 Potential project impact on spirituality

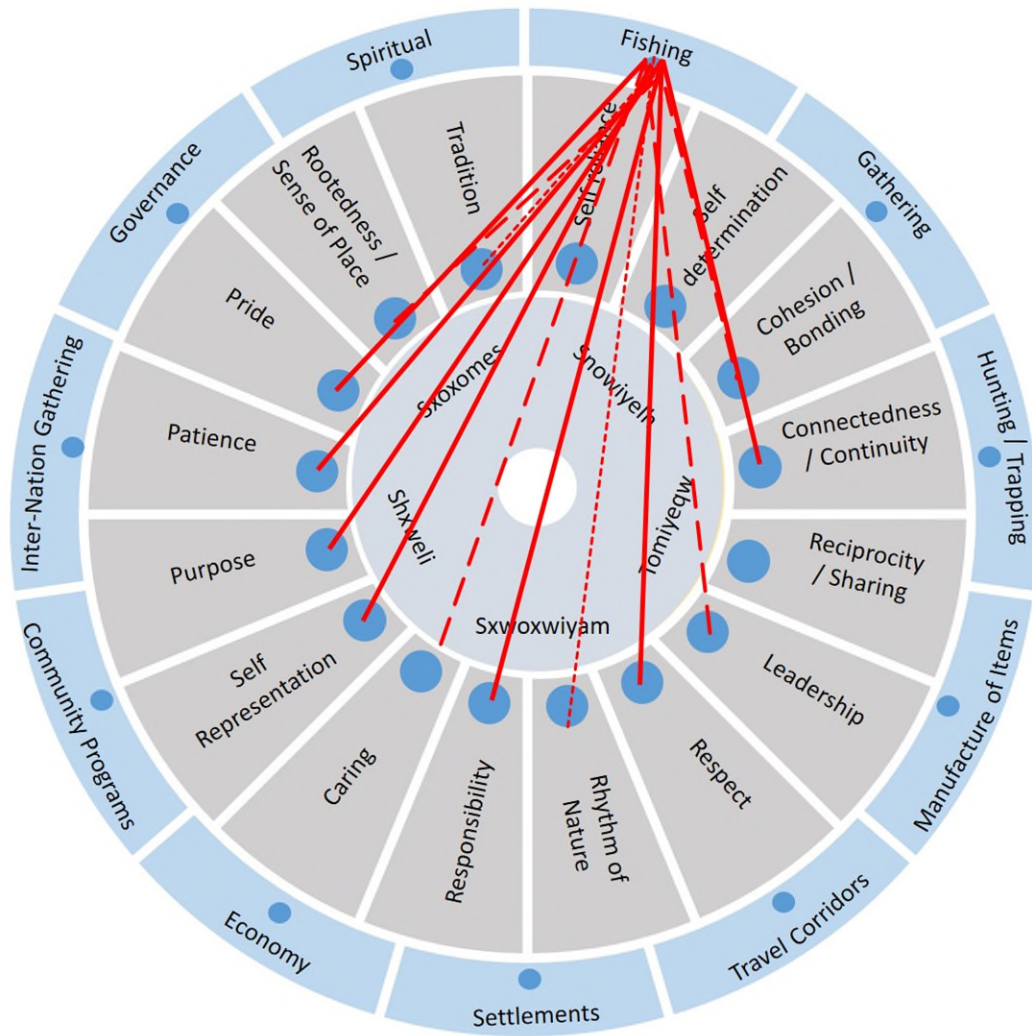


Figure 19 Potential project impact rating on fishing

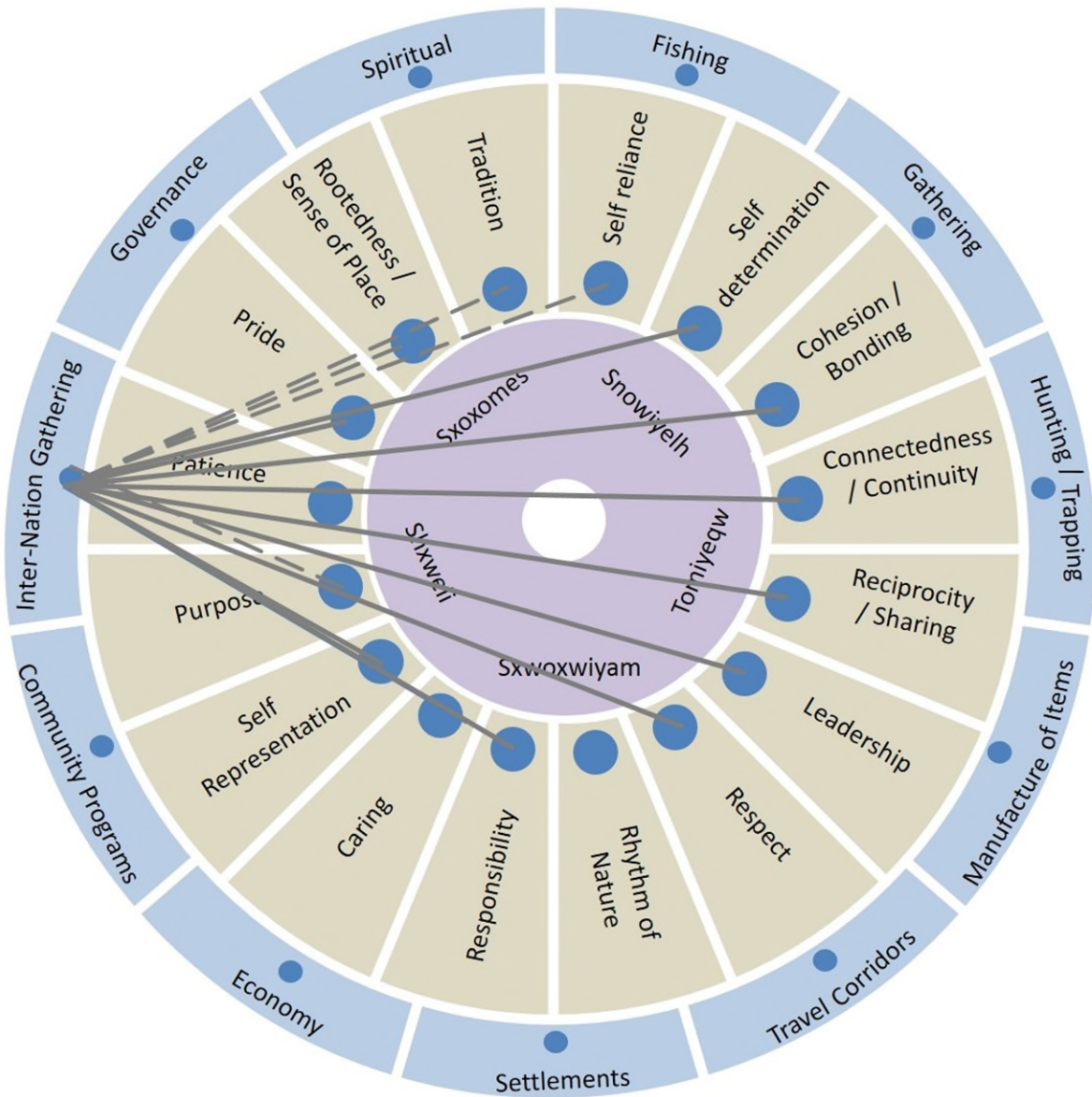


Figure 20 Potential project impact rating on inter-nation gathering

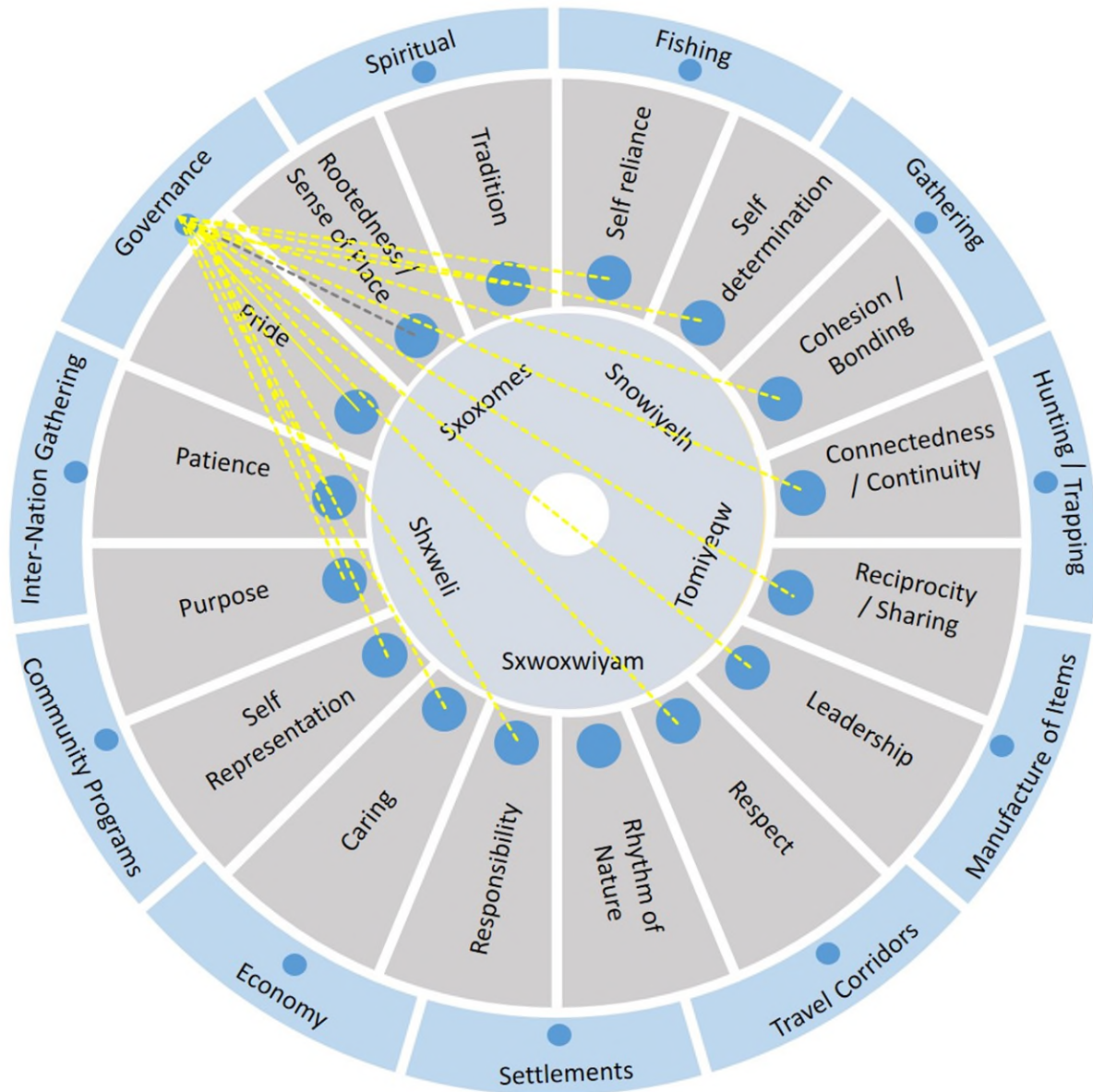


Figure 21 Potential project impacts on Governance

10 Stó:lō Mitigations, Accommodations, Recommendations

Based on the information presented, the S'ólh Téméxw Stewardship Alliance technical staff, as determined by the STSA Rights Holders, has determined the following mitigations, accommodations, and recommendations for the impacts within S'ólh Téméxw and on their Rights and Title.

10.1 Mitigations

Mitigations and offsetting as set forth by the Vancouver Port Authority in collaboration with local Stó:lō First Nation communities such as Tsawwassen, have shown to be of great significance in preventing the loss of fish and fish habitat.

However, there is still great concern regarding the air and water quality that have the potential to impact Stó:lō First Nation communities up-river. These effects have the potential to greatly impact fishing and spirituality as a result. Ongoing monitoring of the air and water quality, especially the air quality in the Fraser Valley, as a mitigation an air quality monitoring station may be required at the site, as well as air quality monitoring station within the City of Chilliwack, and within the Fraser Canyon.

Within the upriver extent of the S'ólh Téméxw, there is also great concern regarding the increased rail transport that has already created a great impact on the local communities, both spiritually through connectivity to the land and interpersonal relations, but also the safety of the community. This has a direct impact on the governance of the community and the ability of the Leadership to protect their members from a variety of concerns. There is a need to ensure that all crossing that are part of the rail system leading to the Port within and around reserves have crossing arms and lights.

10.2 Recommendations

The following are recommendations from the S'ólh Téméxw Stewardship Alliance.

1. That air quality be continuously monitored from the project site to the Fraser Canyon
2. That the Port Authority aim to reduce the amount of idling of transportation as much as possible, during construction and operation
3. That the Port Authority provide air quality monitoring stations within Chilliwack and the Five-mile Fishery of the Fraser Canyon.
4. That the Port Authority, in collaboration with Transport Canada and CN Rail, provide safety measures on all rail lines in and near reserves for the safety of the First Nation members
5. That the Port Authority work with the S'ólh Téméxw Stewardship Alliance to identify areas for habitat enhancement and restoration as a mitigation, and accommodation, for any impacts on Stó:lō rights to fish, to practice their spirituality, and to maintain their cultural connectivity.

10.3 Final Outcomes with Mitigations

The following figures (figures 29, 30, and 31) show the final impacts with the recommendations and mitigations as identified above.

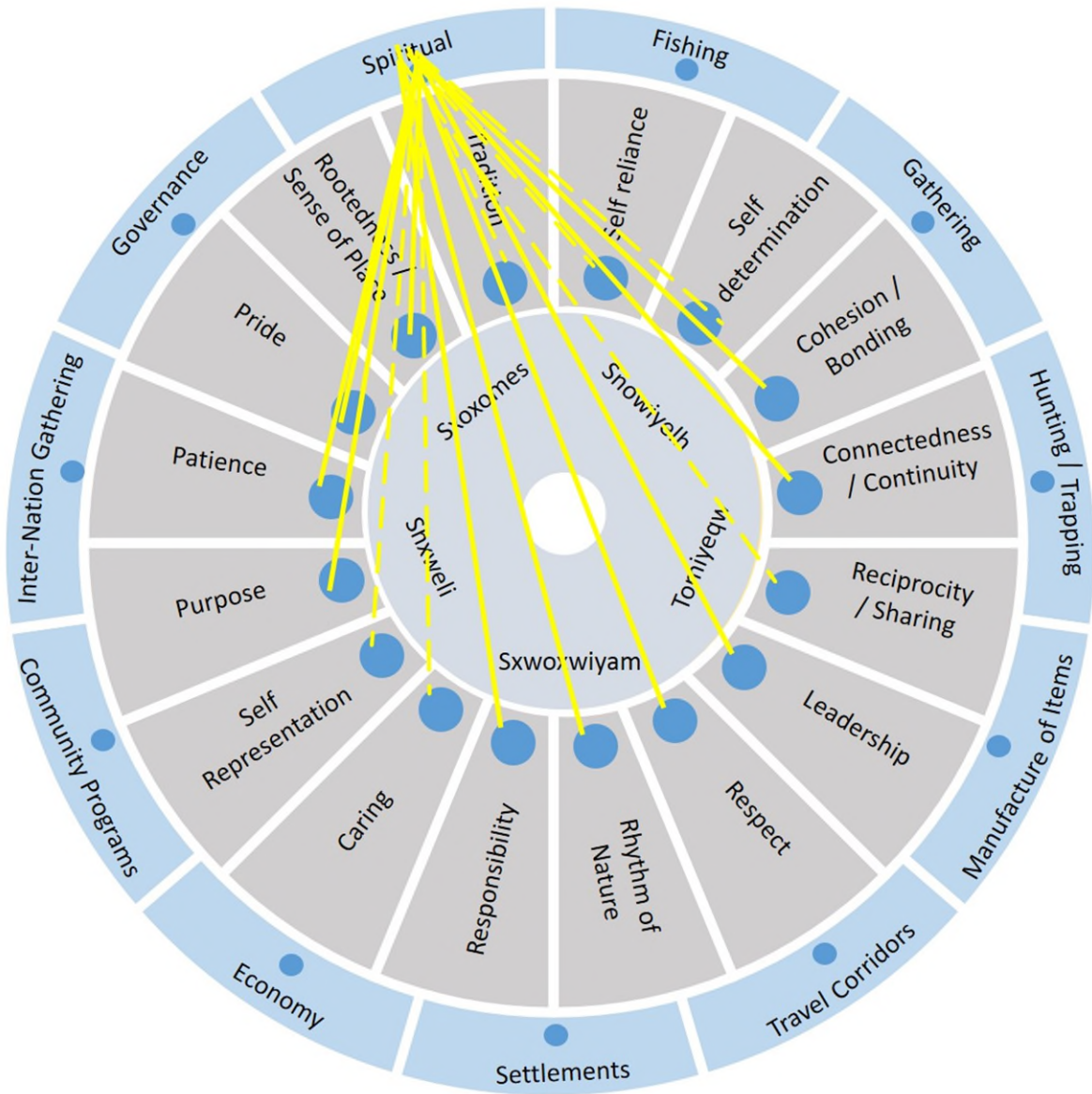


Figure 22 Impact rating of Spirituality with mitigations and recommendations taken into account.

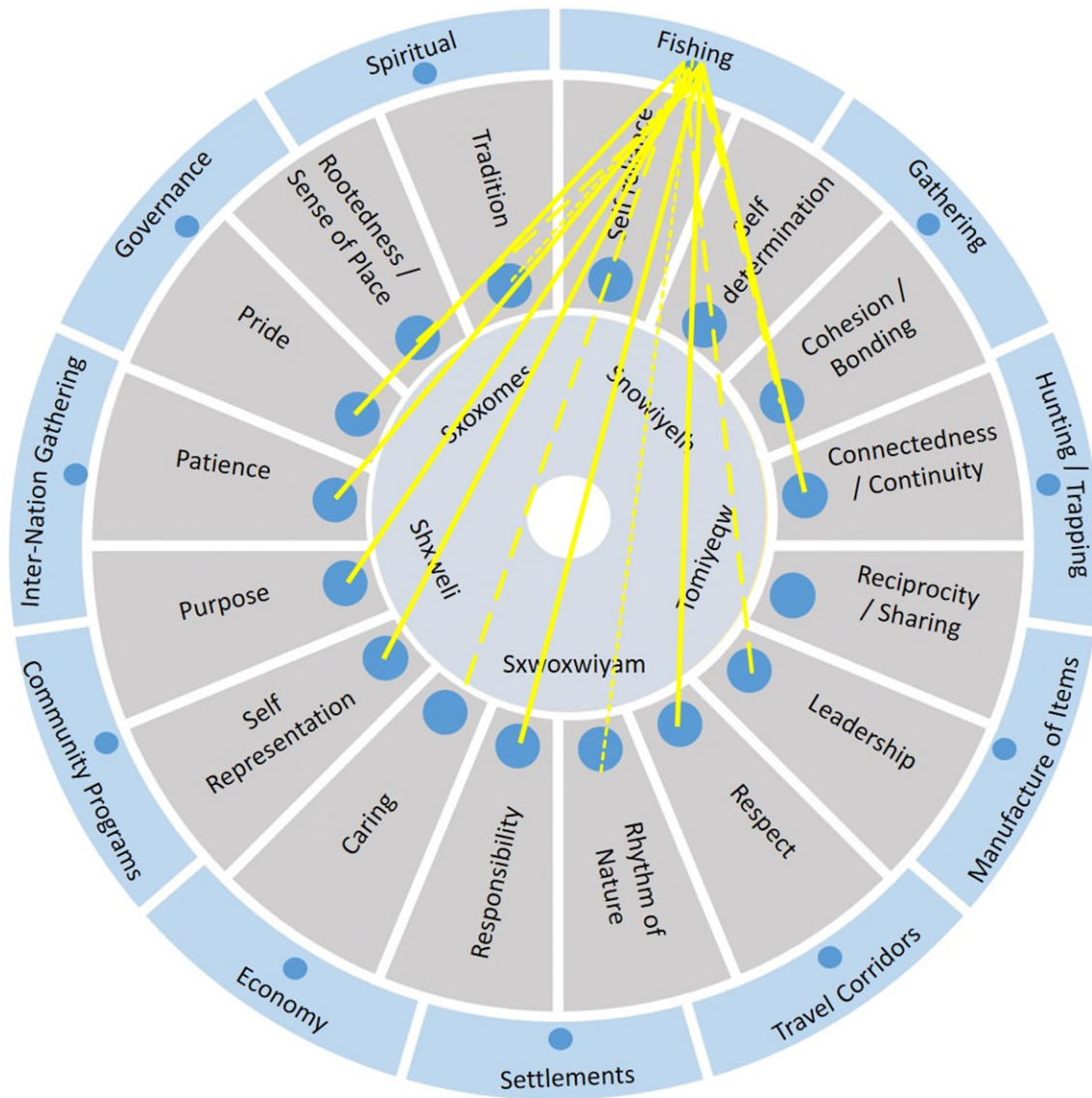


Figure 23 Impact rating of Fishing with mitigations and recommendations taken into account

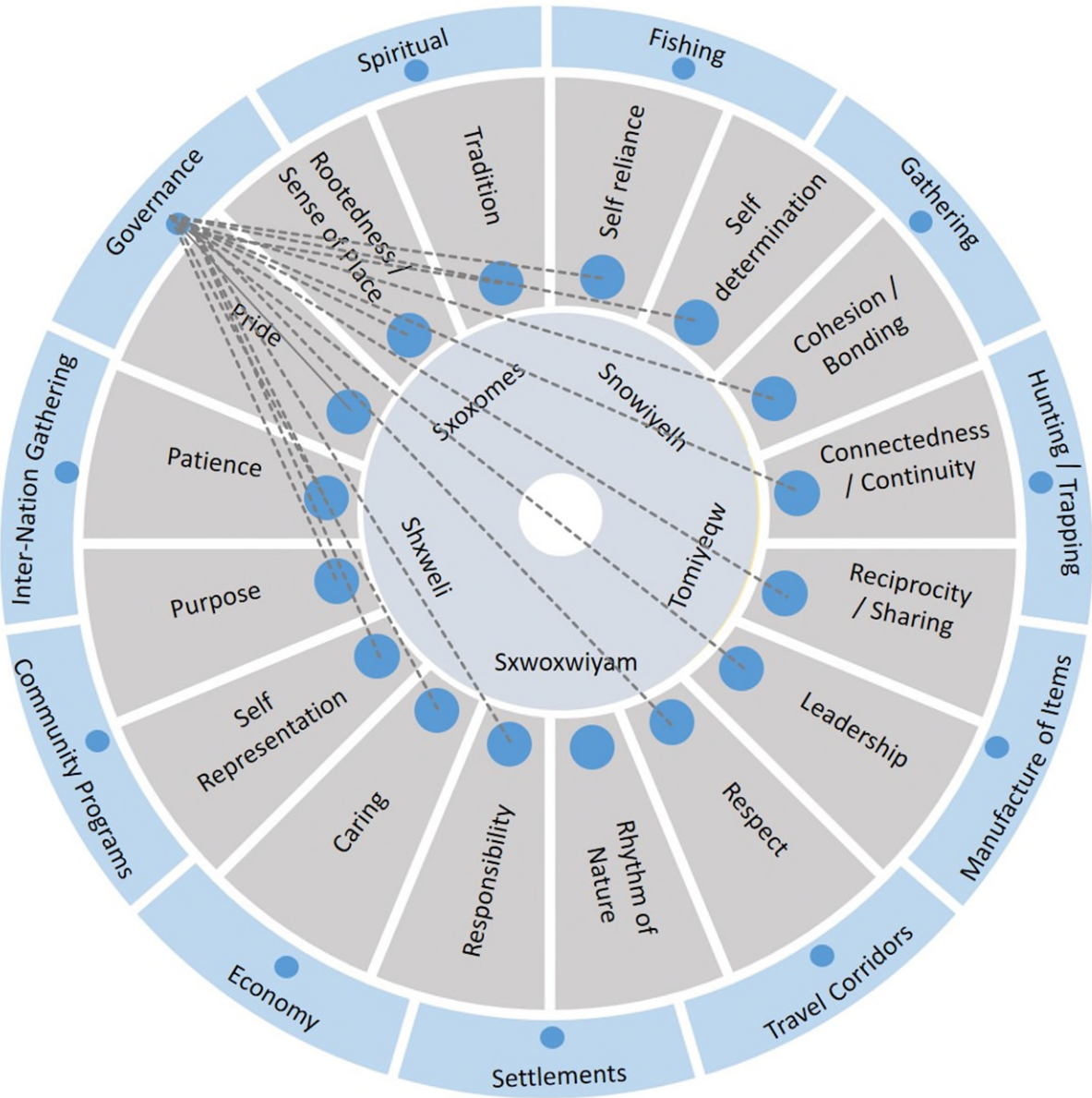


Figure 24 Impact rating of Governance with mitigations and recommendations taken into account