

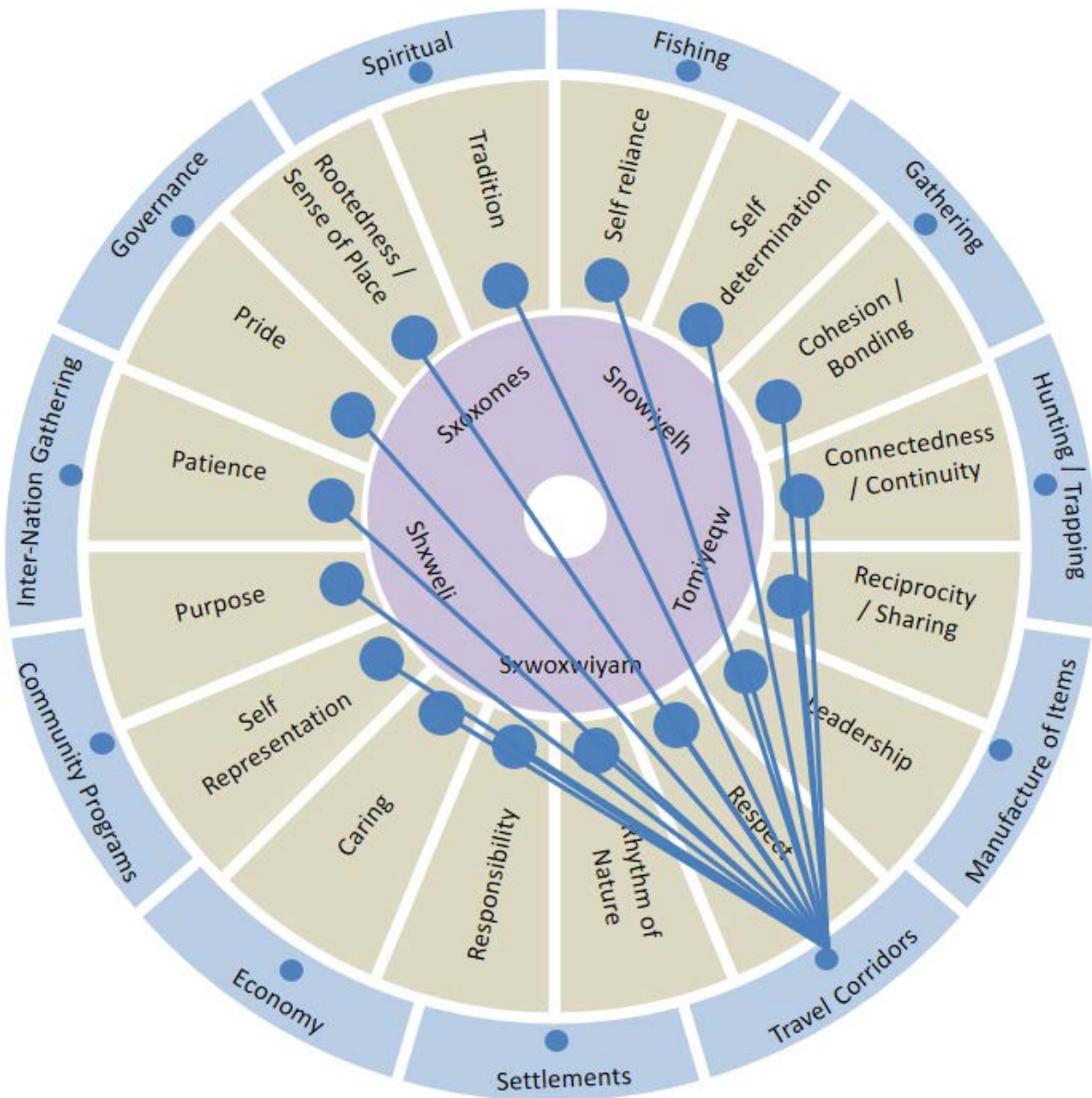
9.0 TRAVEL CORRIDORS

A key element tied to the Stó:lō seasonal round of activities are the network of travel corridors that link Stó:lō communities with family, services, work and harvesting areas throughout *S'ólh Téméxw*.

9.1 Historic Context for Travel Corridors

Transportation routes, trade and communication networks were maintained and delineated through canoe travel and other means (Schaepe, 1999, 2001). The Stó:lō population was supported by the Fraser River and tributary systems, as corridors of travel and transportation both overland and along waterways as shown in *A Stó:lō – Coast Salish Historical Atlas* (Thiusolac and his Father, plate 42 (c.1859) (Boxberger and Schaepe 2001); Khhalseren (Bill Sepass), plate 43 (c. 1918) (Boxberger and Schaepe 2001). 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 (Carlson 2010; Carlson 2001 = plate 8; Carlson et al 2001; J. Miller 1999; Schaepe 2007).

As Figure 9-1 illustrates, use of historic travel corridors instilled most core cultural values.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 9-1: CULTURAL VALUES ASSOCIATED WITH HISTORIC TRAVEL CORRIDORS

9.2 Contemporary Context for Travel Corridors

Stó:lō people rely on travel corridors today to travel to and from work, school, and activities related to sports, education, and community. Contemporary travel corridors, roads and highways, do not reflect the traditional ways of canoeing between seasonal camps and the winter villages, to different Coast Salish communities such as Lummi and Nooksack, or for trade purposes. Contemporary travel relies on cars or transit (when available) and road networks, and sometimes alternative transportation such as biking, walking, or other. Travel has also changed to something that is necessary to do on a daily basis, to get groceries, visit other Stó:lō communities, and for reasons listed above, and is no longer based on a rhythm of nature.

Travel along traditional corridors to participate in spiritual and ceremonial activities, for gathering, hunting, and fishing, as well as seasonal travel for wind drying activities does occur today, but is much less common. Reduced use of waterways for travel or recreations is not a lack of interest or want for such things, but is a result of increased time restraints on daily lives, such as employment, activities, and family responsibility; reduced access to sites; limitations along the river by speed boats; tourist development; diversion of creeks, streams, and rivers which has reduced the connectivity between communities.

The construction and development of roads within *S'ólh Téméxw* continues to be a major reason for the changes in travel corridors and even the changes of pathways on reserve. On reserve gravel and paved roads are developed to create access and egress and connection to roads off reserve, thereby disconnecting non-linear pathways. Oftentimes, in investigating pathways and travel corridors, the most neglected cohort of the population is youth. Children and youth rarely take the linear pathways of roads, not just for convenience, but also for safety and to create a pattern of mobility that is suitable for youth and that builds their confidence and independence.

As Figure 9-2 illustrates, contemporary use of travel corridors instils fewer core cultural values

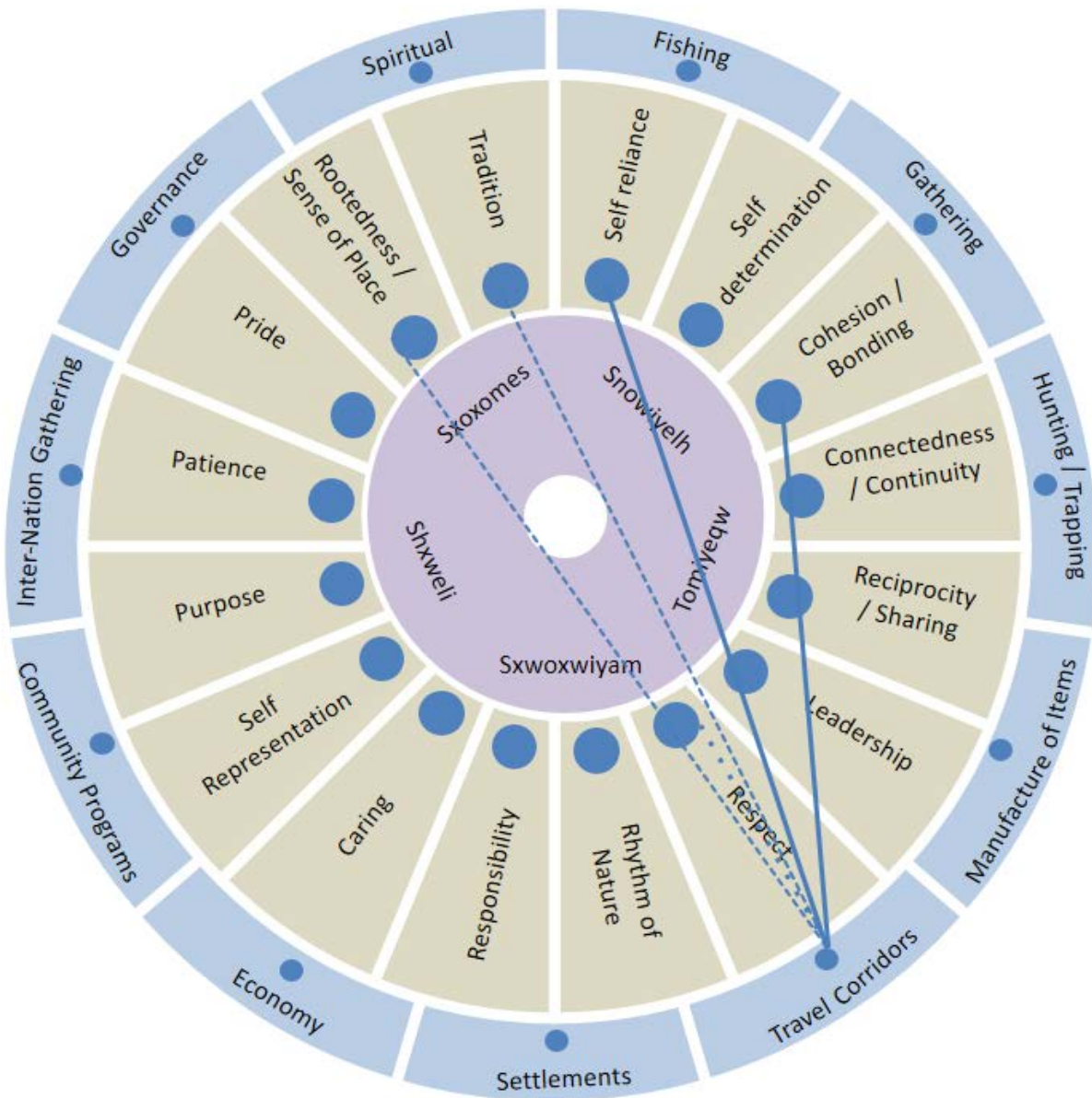


FIGURE 9-2: CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY ROADS AND TRAVEL CORRIDORS

9.3 Indictors for the ICA Travel Corridors

The network of travel corridors throughout S'ólh Téméxw include roads, waterways and a network of historic trails. Travel between communities and important harvesting locations and contemporary economic ventures continue to be integral to the way Stó:lō people carry out daily activities. When considering how travel corridors could be affected by TMEP, two sub-activities were separated out to allow the ICA to select an appropriate range of indicators. The sub activities include:

- ◆ Historical trails, and
- ◆ Contemporary roads and infrastructure

TABLE 9-1: TRAVEL CORRIDORS CONCERNS AND TMEP STRESSORS

Travel Corridors Concern	TMEP Stressor *
<p>1. Historical Trails</p> <p>a. TMEP will either disrupt or limit access to historical trails</p>	<ul style="list-style-type: none"> ◆ Tree clearing (new R/W and R/W widening) ◆ Grubbing, trenching ◆ Blasting ◆ Soil stripping, soil mixing, erosion, sedimentation ◆ Overburden storage ◆ Changes in access ◆ Alteration of water flows/water quality & quantity ◆ Removal or riparian and wetland vegetation ◆ Land use restrictions
<p>2. Contemporary Roads and Infrastructure</p> <p>a. Delays and closure of roads will interfere with regular travel</p> <p>b. Limited number of key routes into and out of First Nation Reserves and TMEP will increase travel times.</p>	<ul style="list-style-type: none"> ◆ Land use restrictions ◆ Introduction of the non-aboriginal work force ◆ Traffic ◆ Dust ◆ Noise

***Stressor:** external forces that affect the way key cultural activities are carried out.

For the purposes of the ICA, the travel assessment will consider potential TMEP impacts to each of these areas of concern and discuss how TMEP stressors (elements causing project effects) could affect Stó:lō values associated with travel. In order to measure potential effects to cultural value linkages as a result of the TMEP, a series of cultural inputs and outputs were identified.

Inputs are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. For example, by considering the question “What do you need (i.e. what skills, knowledge, cultural tools) to successfully travel throughout S’ólh Téméxw”; the ICA was able to develop a list of cultural characteristics and cultural tools associated with travel. How these characteristics/cultural tools (or “inputs”) are applied to an activity like travel is affected by values. By considering the question: “What do you get out of travel throughout S’ólh Téméxw, another list of cultural outputs was developed. Outputs affect values. Once inputs/ outputs were identified, indicators were selected to help track changes in cultural inputs/outputs over time. Changes in the inputs and outputs are used as indicators of the cultural values themselves. The *Indicator report prepared for the ICA of the TransMountain Project* (TTML, SRRMC, HEG 2013) (Appendix A), provides more background on how contemporary cultural inputs and outputs affect linkages to cultural values.

Table 9-2 lists the indicators that will be considered to measure potential impacts to the cultural inputs and outputs associated with travel corridors. The state of contemporary value linkages shown in Figure 9-2 are also listed below in Table 9-2; downward arrows represent linkages that have been weakened over time due to various outside stressors and as such, are vulnerable to additional developmental pressures.

TABLE 9-2: TRAVEL CORRIDORS INPUT AND OUTPUTS AND INDICATORS

Contemporary Value Linkage for Travel Corridors	Input/output	Indicator
<u>Historical Trails</u> Tradition ↓↓ Rootedness/sense of place ↓ Self Reliance ↓↓ Cohesion/bonding ↓↓ Respect ↓↓	<ul style="list-style-type: none"> ◆ Knowledge of Place ◆ Traditional skills ◆ Strength ◆ Intergenerational transfer of knowledge ◆ Health 	<ul style="list-style-type: none"> ◆ What access routes do Stó:lō people rely on the most? ◆ What do Stó:lō people feel is the main cause in traffic delays ◆ What are the main “bottle neck” areas most susceptible to delays? ◆ Do Stó:lō people feel the traffic infrastructure has capacity to handle increase traffic volumes, both average daily traffic and peak hour traffic

Contemporary Value Linkage for Travel Corridors	Input/output	Indicator
<u>Road and Infrastructure</u> Tradition ↓↓ Rootedness/sense of place ↓ Self Reliance ↓↓ Cohesion/bonding ↓↓ Respect ↓↓	♦ Knowledge of Place ♦ Health	♦ # of main access corridor/travel routes between communities and service areas within S'ólh Téméxw ♦ # of main access corridor/travel routes between communities and service areas crossed by existing pipeline RW

9.4 Baseline – Travel Corridors

To describe baseline conditions related to important travel corridors, this section has been separated into two sections. The first section discusses historic trails. The following section presents baseline conditions related to contemporary roads and infrastructure.

9.4.1 Baseline – Historical Trails

Under Stó:lō Heritage Investigation Permit #2013-044, SRRMC carried out GIS modeling and ground truthing of Aboriginal trails along the proposed TransMountain Pipeline Corridor from Cheam to Sumas (1025-1092 KM), in the fall of 2013. The ICA is included in Appendix B. Within S'ólh Téméxw, 24 historic trails were identified. During Ground truthing, 15 travel routes were confirmed. These trails are shown on maps included in the TransMountain Expansion Project Heritage Resource Impact Assessment Map Book (Appendix B) and the Aboriginal Trails report (Table 4 Appendix B).

9.4.2 Baseline – Roads and Infrastructure

Within S'ólh Téméxw there are a series of roads and highways, used by Stó:lō people on a regular basis. The following table lists the roads and highways used by Stó:lō people that are crossed by the existing TransMountain Pipeline and then other important roads and highways in the broader area of S'ólh Téméxw.

Roads and Highways frequently used by Stó:lō people, which are crossed by the existing TransMountain Pipeline

- | | |
|--|------------------------|
| ♦ Annis Road | ♦ Keith Wilson Road |
| ♦ Chilliwack River Road | ♦ Lickman Road |
| ♦ Highway #9 (Agassiz-Rosedale Road) | ♦ Prairie Central Road |
| ♦ Highway #11 | ♦ Prest Road |
| ♦ Highway #1 (from Hope to Abbotsford) | ♦ Sumas Mountain Road |

◆ Tyson Road

◆ Vedder Road

Additional roads and Highways used by Stó:lō people

◆ Aitken Road

◆ Stevenson Road

◆ Luckakuck Way

◆ Eagle Landing Parkway

◆ Aitchelitz Road

◆ Vedder Mountain Road

◆ McGregor Road

◆ Elridge Road

◆ Ashwell Road

◆ Watson Road

◆ North Parallel Road

◆ Evans Road

◆ Atkinson Road

◆ Wellington Avenue

◆ Old Yale Road

◆ Flood Hope Road

◆ Bailey Road

◆ Wells Road

◆ Popkum Road

◆ Hodgins Avenue

◆ Chilliwack Lake Road

◆ Whatcom Road

◆ Promontory

◆ Knight Road

◆ Lower Sumas Mountain Road

◆ Wolfe Road

◆ Schweyey Road

◆ Lower Landing Road

◆ Columbia Valley Highway

◆ Yale Road

◆ South Sumas Road

◆ Young Road

◆ Columbia Valley Road

Stó:lō people use these roads daily for both day-to-day activities such as groceries shopping, driving kids to school, going to work, etc., as well as for travel to visit family and attend cultural meetings or activities. Based on survey results and roughly 15 interviews with key Stó:lō community contacts across *S'ólh Téméxw*, it is estimated that on average Stó:lō people travel on the roads and highways in *S'ólh Téméxw* 15 – 20 times per week (individuals interviewed for the ICA are referenced in the acknowledgements). As some of the Stó:lō communities do not have key services such as schools and medical facilities on the reserves, travel by Stó:lō people is often to access core services.

Over the past 10-years Stó:lō people have noticed an increase in traffic on roads and highways in and it has affected their ability to travel in *S'ólh Téméxw*. Traffic volumes on roads and highways in *S'ólh Téméxw* has increased in the past 10-years, with an increase of about 50% on Highway 1 near

Chilliwack and 25% on Chilliwack River Road, as two examples (Min of Transportation, and Chilliwack Traffic). In addition to traffic volume increases, there has also been an increase in commuting times in S'ólh Téméxw. Statistics Canada data shows that commute times for workers near Abbotsford average 26.7 minutes per day, which ranks as the 9th longest commute out of Canada's 35 metropolitan areas (Stats Can Commute). As two members of Skowkale state:

"If left on Friday afternoon, later than 3 PM, then I'm not home until 7." Mark Point, Stó:lō Elder (Skowkale)

"My experience with traffic issues is that have cause delay, safety issues (accidents), disruption of scenery/nature and my sense comfort and familiarity [with S'ólh Téméxw]." Helena Paul, Stó:lō person (Skowkale)

Stó:lō people have also noted construction projects near the roads they use as a specific concern. Members have indicated that they will actually stay home and not travel if there is construction in the area, as one member from Cheam who travels in S'ólh Téméxw to attend cultural events noted:

"If there are any construction projects in the area I will stay home." Amy Victor, Stó:lō Elder (Cheam)

As noted in the TMEP Facility Application, some of the key service providers in the study have indicated that traffic related issues are a key concern for them. An EMS officer indicated that changes in traffic volumes are a concern to them as it can increase response times.

The issues related to increased traffic volumes and longer commute times has resulted in Stó:lō people travelling less to visit with family or attend cultural events. This has had a negative effect on the Stó:lō culture and increased the sense of isolation and loss of connectedness. A Skowkale member summarized this impact:

"If I was going to a cultural activity I was always late. I think it [traffic] has had a mental impact." Mark Point, Stó:lō Elder (Skowkale)

9.5 Impact Assessment – Travel Corridors

Access to travel corridors are an important contributor to Stó:lō culture, both in terms of historical trails and contemporary road infrastructure.

Patterns of human settlement provide some context to understand relationships between Stó:lō communities and their relationship to S'ólh Téméxw. As mentioned in the baseline information, the demand for housing has become an issue for Stó:lō people. Stó:lō people are forced to live off the reserve due to the lack of land, infrastructure and housing on their reserves.

9.5.1 Impacts – Historic Trails

Of the 15 existing travel routes, all were considered moderately to heavily disturbed, so no further archaeology investigations are required. Of the 15 routes identified, 6 occur/cross private land, so access is currently limited. However, the remaining accessible travel routes continue to be used by Stó:lō people to move around their communities, between other Stó:lō communities and to access recreational and resource harvesting areas. The historic trails in and around the Stó:lō communities

provide a continued connection to the land, to Stó:lō ancestors, and continue to be 'safe' travel corridors for youth, parents with their children, and elderly Stó:lō people. These travel corridors present an opportunity for specific Stó:lō people to be able to protect themselves from heavier traffic, and are perceived as 'safe' because they are well known and well used by Stó:lō people. Moreover, some of the historic trails provide a corridor to spiritually significant sites, such as bathing, fasting, and hunting or fishing sites on which Stó:lō people rely. If these trails are altered it can greatly affect the way Stó:lō people are able to move around their community to remain socially, spiritually, and economically connected, thereby creating a short term isolation and disconnect that may have a greater psychological and physical impact. The pipeline right of way is a trail that is used consistently to walk along and access other trails along the way. Any development activity that takes place on the right of way will impact travel and access to important cultural areas (Cheam Research Group, 2014). Cheam people are constantly travelling up to the mountains for many different cultural uses.

"When I was in my late-teens I started hunting lots. My uncle Bino Tommy, used to take me all along the lower hillsides to hunt for deer... We would actually use the pipeline right of way as our trail along the bottom of the mountain, when we saw fresh deer tracks we would follow the trail up into the lower parts of the mountain... Bino talked about how he learned to hunt around there with his older brother, and the use of this area for hunting that went back through the generations." Eyteleq (Darwin Douglas) – Cheam Bighouse Leader, Cheam Hunter & Fisherman

Any TMEP activity that further restricts access along these travel routes has the potential to adversely affect value linkages for Rootedness/sense of place, Self Reliance, Cohesion and bonding.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as medium. The likelihood will be highly likely. The combination of an importance ranking of medium and a likelihood of highly likely results in a significance ranking of highly significant.

9.5.2 Impacts – Roads and Infrastructure

Temporary workers will add to local traffic volumes as they travel from their hotels to the Right of Way; as will the trucks and service vehicles that will bring materials and products to TMEP construction sites.

The Socio-Economic Assessment (TMEP Facility Application Volume 5B, Part 3, Section 7.2.5.6) outlines the residual traffic impacts from TMEP and indicates that, for communities with limited access routes, the impact of TMEP on traffic, particularly in summer months will be "more than a nuisance or inconvenience to residents, travelers and other road users." Portions of S'ólh Téméxw for the ICA have limited access route options and therefore could be expected to have the same impacts. The Facility Application also notes that sections of the Trans-Canada Highway that is located in the Lower Mainland is consistently busy. While an increase in traffic due to TMEP on the Trans-Canada Highway is not anticipated to be perceived by residents and other road users in the context of its heavy current use, any impediments to the movement of traffic in this busy area caused by TMEP could be problematic.

Of great significance is the layout of the Stó:lō communities, how often Stó:lō people travel from one community to another, and the way the youth, elders, and parents with children move throughout the territory today. Many youth and elders walk pathways, traditional and contemporary, to get from one community to another. The movement between communities is important to the social health of the Stó:lō people, specifically children/youth and elders. Construction near these pathways will adversely affect the way in which Stó:lō people may participate in inter-community events, and travel to programs, services, and social gatherings that are a part of their daily routines.

Contemporary roadways have an important role in the movement of Stó:lō people to, travel to and from work, visit other communities, go to ceremonies, get to fishing, hunting, and gathering sites, attend social gatherings, and to practice spiritual activities, such as fasting, praying, and bathing. Moreover, roadways for some communities are the only way that they can travel to these places. Of great concern are the communities of Aitchelitz, Soowahlie, and Tzeachten. Aitchelitz, being located in the industrial centre of Chilliwack may effectively be cut off from communities and travel as the northern area of Lickman Road has potential to become a staging area for construction due to its industrial lands, card-lock gas stations, and local hotels. By creating a staging area at this location, Aitchelitz will be forced to use an alternative route that will be more of an inconvenience, and Stó:lō people will more than likely be cut off from access at points, during construction (specifically along Evans Road). Soowahlie, relying on only two egress roadways will also be isolated during construction as tourists use Vedder Mountain Road and Cultus Lake Road, and construction within Tzeachten effects Vedder Road along with Chilliwack River Road areas. Construction delays in this area are well known to Stó:lō people and pose problems for pedestrians, cyclists, and drivers, who are not only restricted by construction times, but also by heavy traffic flow and a decrease in safety. Pedestrians, particularly children/youth and elders, will be at higher risk when travelling these specific corridors, which may increase the feeling of isolation and connectivity. Tzeachten residents will also be greatly impacted by construction of the pipeline, as a well-known corridor for pedestrians is the RW shared by the hydro lines and the pipeline. This pathway promotes safe travel from Tzeachten to Stó:lō Nation, schools, and other areas that are used by youth and elders (local retail stores, restaurants, community centres, parks etc.). The construction of the pipeline through the reserve will also significantly impede pedestrian and automobile travel between communities such as Skowkale and Yakwekwioose, as construction takes place within all corridors between the communities. This may lead to the isolation of elders and youth/children within the community of Tzeachten and impact youth and elders from Skowkale and Yakwekwioose as well.

Any TMEP activity that further affects traffic along these travel routes has the potential to adversely affect value linkages for Rootedness/sense of place, Self Reliance, Cohesion and bonding.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as medium. The likelihood will be highly likely. The combination of an importance ranking of medium and a likelihood of highly likely results in a significance ranking of highly significant.

9.6 Impact Summary

For the purposes of the ICA, the assessment on travel corridors considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with these activities. The areas of concern were:

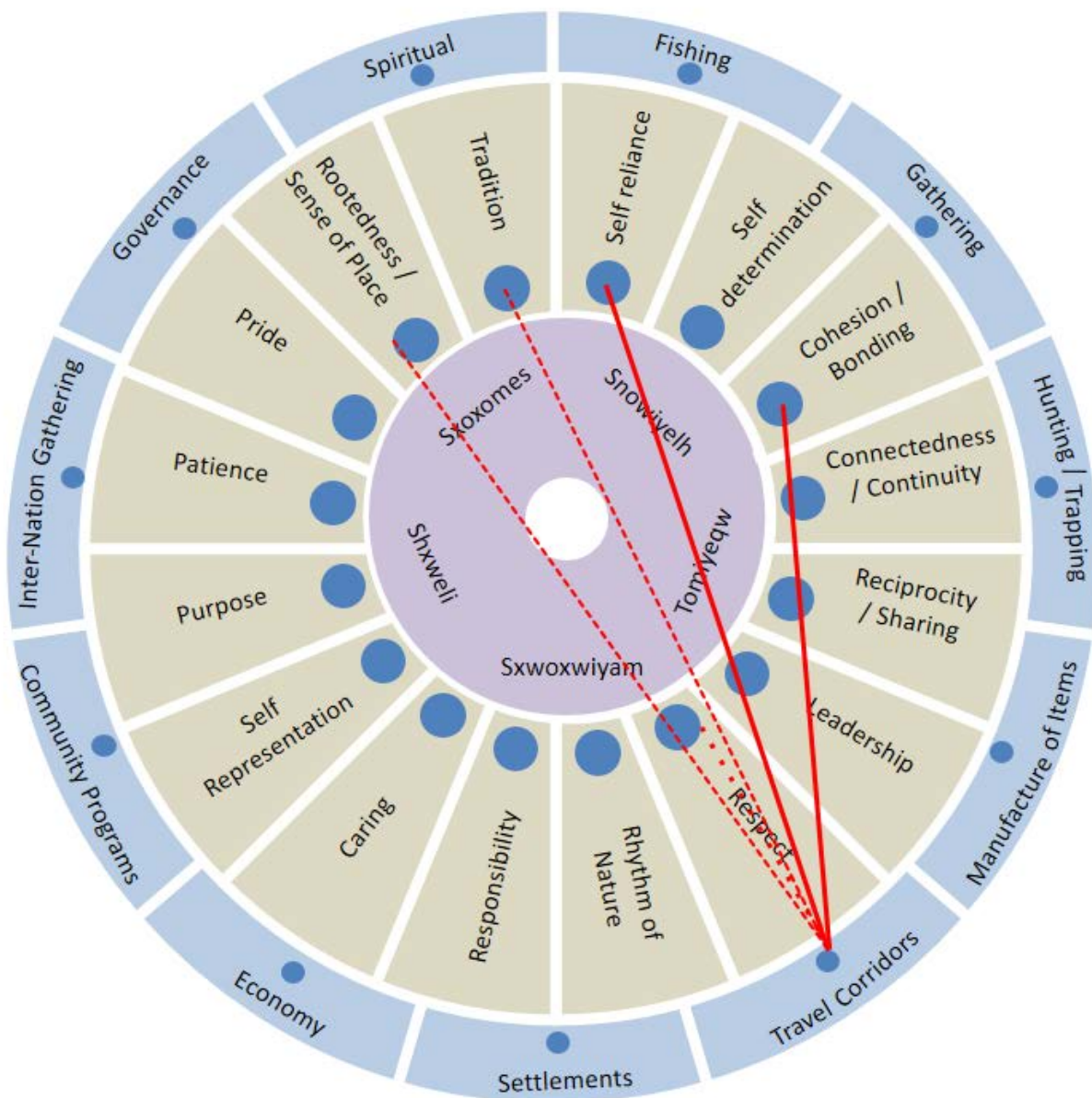
- ◆ Historic trails
- ◆ Contemporary Roads and Infrastructure

As described earlier in Section 2.2.3 positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the table 9-3 below and linkages on the model are coloured grey.

H+H = H
H+M = H
H+P = M
M+M = M
M+P = M
P+P = P

TABLE 9-3: PRE-MITIGATION SIGNIFICANCE RATING FOR TRAVEL CORRIDORS

Value	Historical Trails	Contemporary Roads	Final Rating
Self Reliance↓↓↓	H	H	H
Respect↓↓↓	H	H	H
Tradition ↓↓↓	H	H	H
Rootedness/sense of place ↓	H	H	H
Cohesion/bonding↓↓↓	H	H	H



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 9-3: POTENTIAL TMEP IMPACTS TO TRAVEL CORRIDORS

9.7 Mitigation Recommendations – Travel Corridors

As described in the previous section TMEP is predicted to have highly significant adverse impacts.

The following mitigation and enhance measures are recommended by Stó:lō representatives as a way to minimize or avoid negative impacts as a result of the TMEP.

The TMEP will file with the Stó:lō representatives and NEB, for approval, at least 6 months prior to commencing construction an Access Management Plan for *S'ólh Téméxw*, the plan should include:

- ◆ Maps of routes which are going to be used for transportation of workers and materials.
- ◆ Details of the strategy for providing bussing or some other form of worker transport management for construction workers, between the accommodation locations and the construction site.
- ◆ Traffic supervision plans during construction to identify any access routes that have higher than predicted traffic and/or delays and the adaptive management plan that TMEP will use to adjust access routes.
- ◆ Traffic safety education program for TMEP employees and contractors about acceptable driving behaviour in *S'ólh Téméxw*.
- ◆ Schedules for the trucking of heavy loads to avoid peak traffic times and heavily-used intersections.
- ◆ Management plan to prohibit construction parking/staging areas along key access routes to Big houses, boat launches, trailheads near bathing sites

9.8 Residual Impact Assessment – Habitation/Settlements

As described in the previous section TMEP is predicted to have highly significant impacts. The mitigation recommendation section outlines actions that TMEP can take to minimize or avoid the adverse impacts.

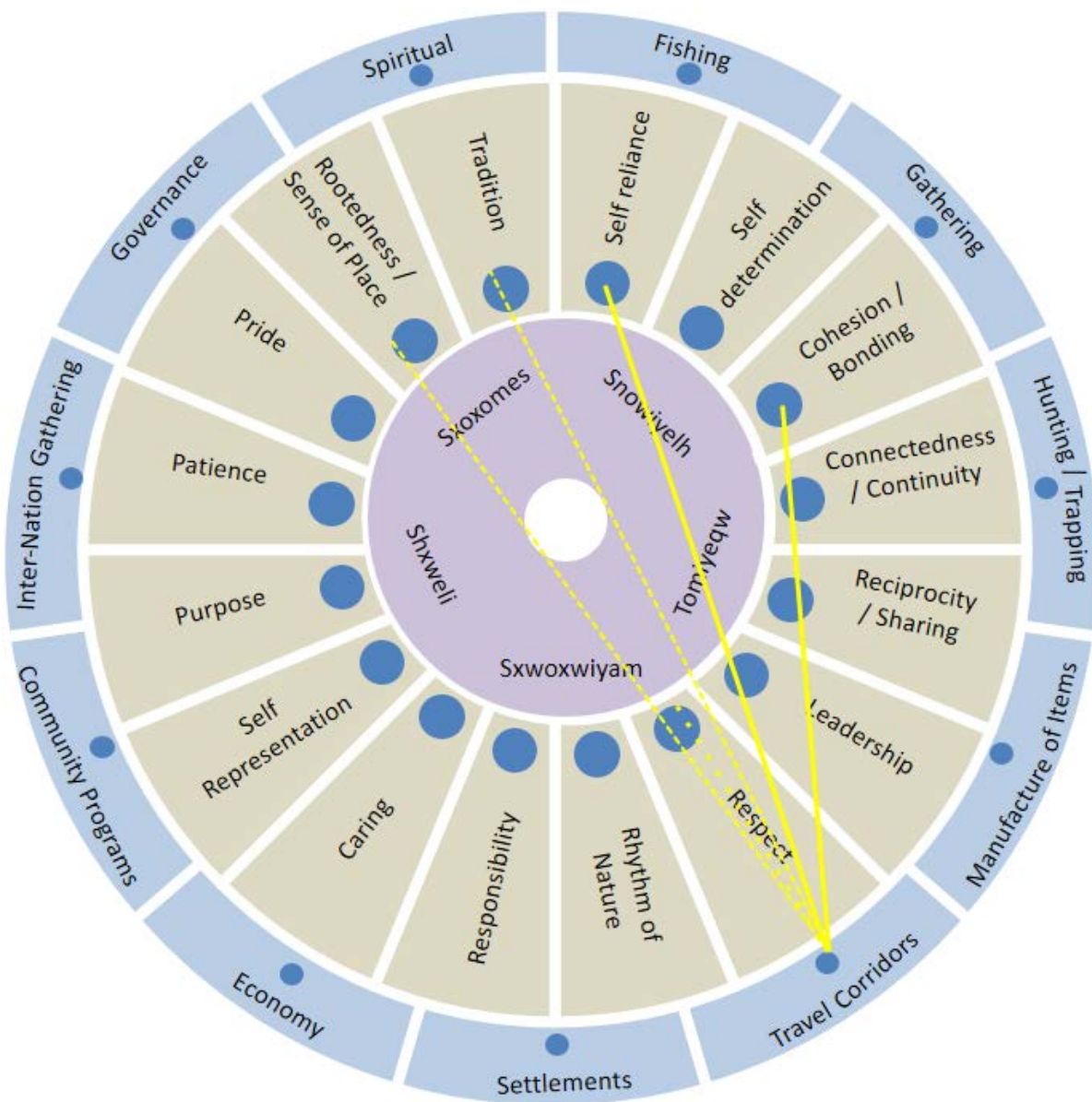
Assuming TMEP agrees to and implements the mitigation measures listed in the previous section, the following would be the residual impact of TMEP on travel corridors.

- ◆ Limited or restricted access to historical trails.
- ◆ Increase in traffic volumes along the TMEP.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be low, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as low. The likelihood will be likely. The combination of an importance ranking of low and a likelihood of likely results in a significance ranking of moderately significant.

TABLE 9-4: RESIDUAL SIGNIFICANCE RATING FOR TRAVEL CORRIDORS

Value	Historical Trails	Contemporary Roads	Final Rating
Self Reliance↓↓↓	M	M	M
Respect↓↓↓	M	M	M
Tradition ↓↓↓	M	M	M
Rootedness/sense of place ↓	M	M	M
Cohesion/bonding↓↓↓	M	M	M



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 9-4: RESIDUAL TMEP IMPACTS TO SETTLEMENT (HOUSING ON AND OFF-RESERVE)

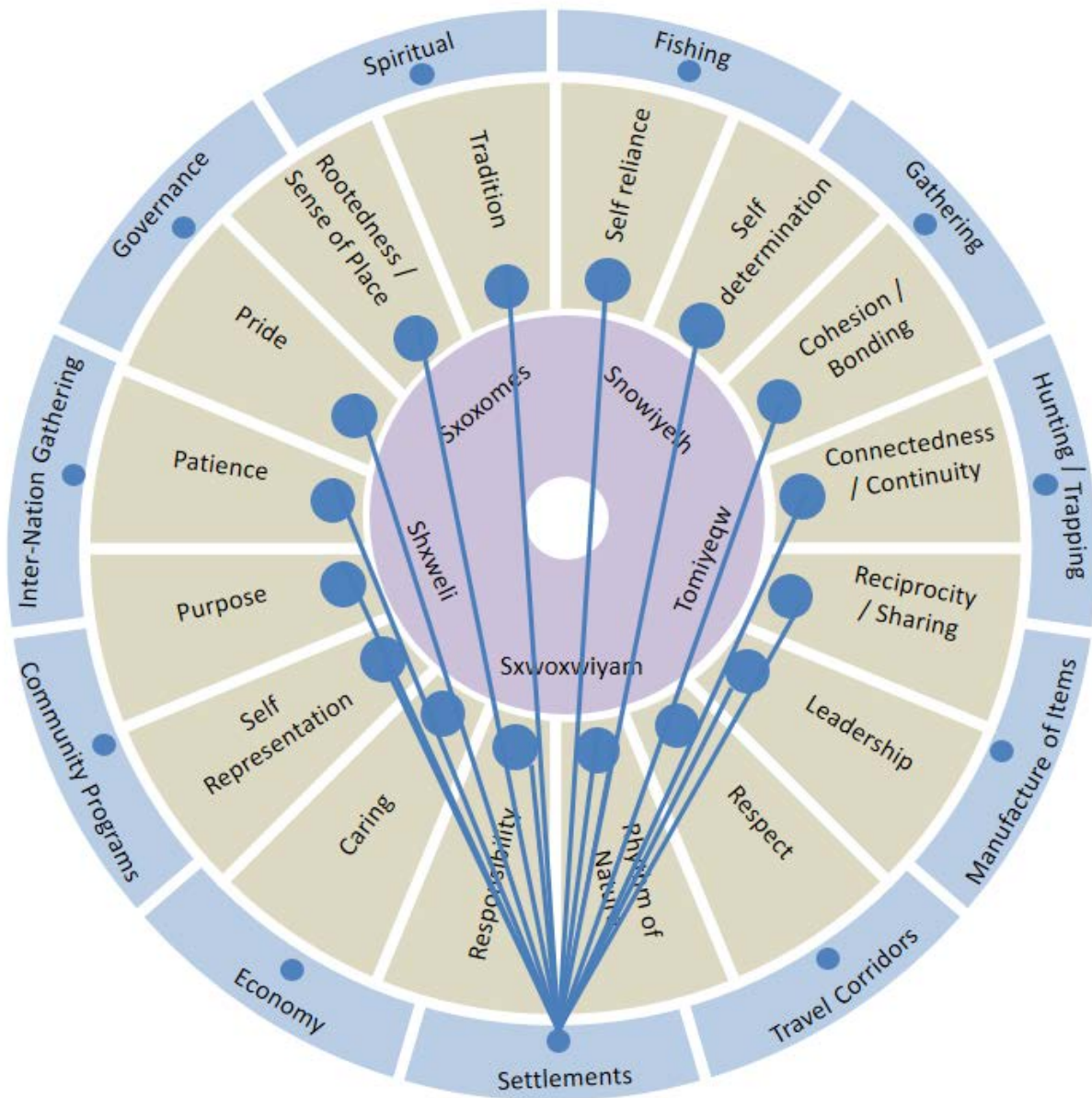
10.0 HABITATION/SETTLEMENTS

Patterns of human settlement provide the necessary context to understand relationships between Stó:lō communities and their relationship to *S'ólh Téméxw*. Settlements were often created for the protection and function of socio-political and socio-economic activities (Schaepe, 2006; 2009).

10.1 Historic Context for Settlements

Historic housing types varied depending on the purpose, but the two most common were pit-houses in the lower region of the Fraser Valley, and plank houses throughout *S'ólh Téméxw* (Duff 1952; Graesch 2006; Lepofsky et al., 2009; Schaepe et al, 2001, 2009; Suttles 1987). The larger villages, with plank houses, were designed to hold community gatherings. The smaller villages were deliberately placed closer to resource sites and areas of significance.

Settlements were created in order to form networks of assistance and reciprocity, with many households being linked through the economic sharing of game, fish, transportation and services as a type of collective identity that was key to the survival of the village (Mooney, 1976). Reciprocity did not only include the actual neighbour, but included neighbouring villages, and all sorts of kinship throughout *S'ólh Téméxw*.



Strong direct link to value	—————
Still 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 this activity	.....

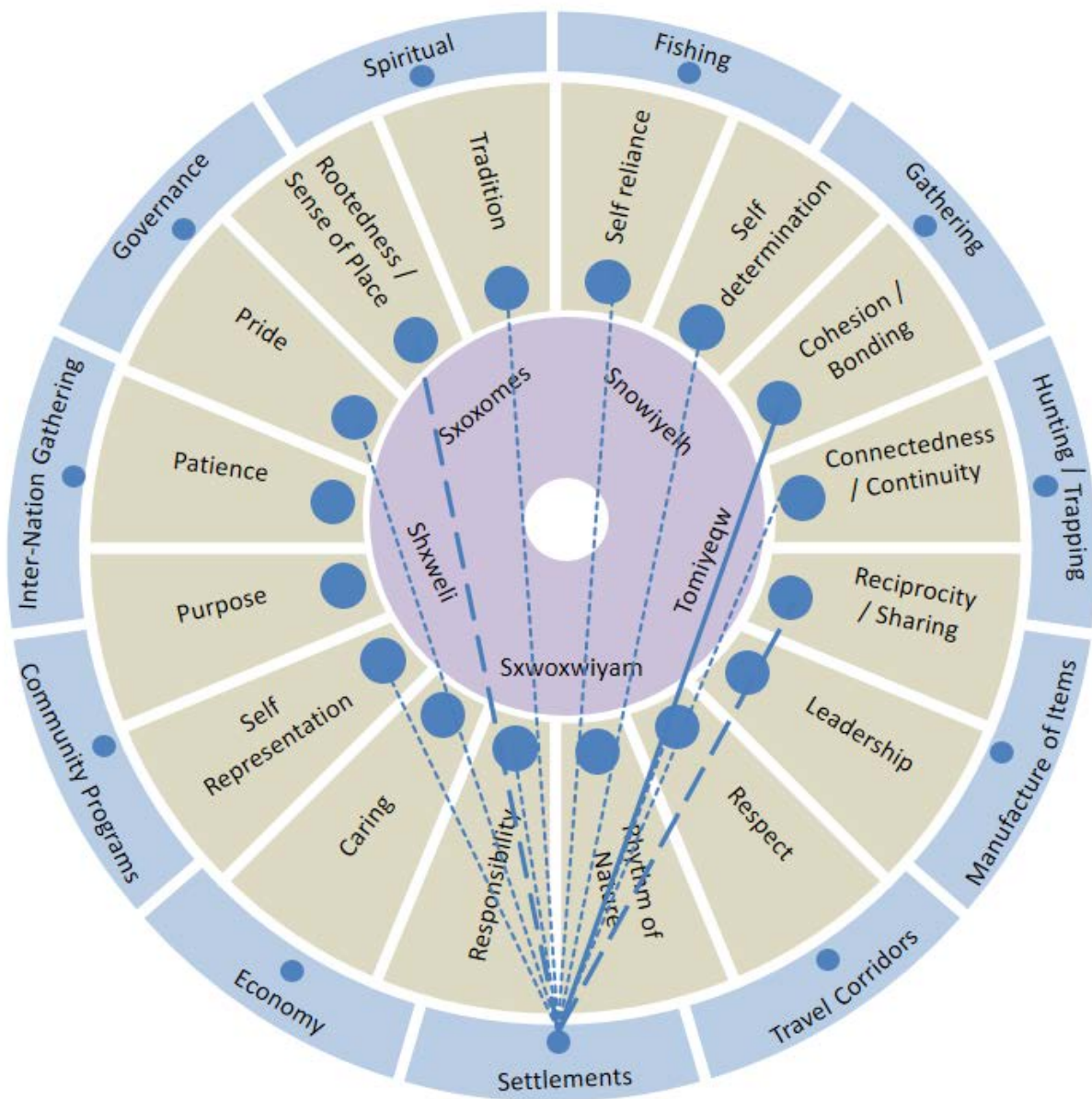
FIGURE 10-1: CULTURAL VALUES ASSOCIATED WITH HISTORIC SETTLEMENTS

10.2 Contemporary Context for Habitation/Settlements

This section of the assessment will address contemporary settlements for the eleven Stó:lō communities supporting this ICA including: Aitchelitz, Skowkale, Shxwhà:y, Soowahlie, Squiala, Tzeachten, Yakwekwioose, Kwaw kwaw Apilt, Skwah, Cheam and Sumas.

Housing and accommodation for Stó:lō people is a complex issue, with the majority of Stó:lō people living off-reserve and some living on-reserve. Those who live off-reserve do so for a variety of reasons, which include lack of land, infrastructure, housing opportunities, and the perception of potential safety hazards caused by developments on reserve land, such as power lines, railways and landfills. During community engagement, Stó:lō people consistently described a sense of fear of living outside of their community.

One of the key determinants of whether Stó:lō people live on or off reserve is the simple fact that the limited amount of land that AANDC has “given” to First Nations is not enough to support the population growth within that Stó:lō community, leading to a “forced” movement off reserve. Another factor in displacing Stó:lō people is development. The constant fragmentation of Stó:lō reserves and territory, as noted above, has led to a fear of place that moves Stó:lō people off the land entirely.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 10-2: CONTEMPORARY VALUES ASSOCIATED WITH SETTLEMENTS

10.3 Indictors for the ICA Habitation/Settlements Assessment

Habitation/Settlements was identified by Stó:lō people as having a very direct effect on their sense of culture and well-being. Two Stó:lō women provided the following perspective:

"I live on reserve to be close to my family and support system. People choose to live on reserve because it has affordable housing, and close to family, supports and longhouse. When I lived off reserve I felt isolated and alone. Moving back fulfilled my cultural values of communal living, connecting with family, growing my own food, sharing, caring, supporting, communal decision making and connectedness." Helena Paul, Stó:lō person (Skowkale)

"People choose to live on reserve because they are so used to the reserve life, culture and connectivity; that this is all they know and to leave would be fearful. Being able to afford living off reserve is difficult. Just being here, we have trees, plants, trails and the water. By not living on reserve I was less connected. In my eyes, living off reserve, there's a lack of connection. When I first came back to the reserve, I wanted to cry with all my memories of my childhood and playing outside was great. You don't have that connectivity, you are fearful, and you just can't afford it, so we will jam pack into a house where we can survive and make it happen." Latasia (Tosha) Commodore, Stó:lō Youth and Recreation Worker (Soowahlie)

Concerns related to Settlement are assessed for two areas:

- ◆ Historical camps and villages and burial sites, and
- ◆ Contemporary Housing and Accommodation

TABLE 10-1: SETTLEMENT CONCERNS AND TMEP STRESSORS

Settlement Concern	TMEP Stressor *
1. Historical camps and villages and burial sites <ul style="list-style-type: none"> a. Lack of protection of historic campsites and villages near the TMEP b. Erosion of Stó:lō culture from more industrial development and therefore less use of camps and villages 	<ul style="list-style-type: none"> ◆ Tree clearing (new RW and RW widening) ◆ Grubbing, trenching ◆ Blasting ◆ Soil stripping, soil mixing, erosion, sedimentation ◆ Overburden storage

Settlement Concern	TMEP Stressor *
2. Housing and Accommodation a. The situation for housing is already bad, and TMEP will make it worse b. Accommodation off reserve are already expensive and TMEP will make it worse.	<ul style="list-style-type: none">◆ Land use restrictions◆ Introduction of the non-Aboriginal work force◆ Traffic◆ Dust◆ Noise

***Stressor:** external forces that affect the way key cultural activities are carried out.

TABLE 10-2: SETTLEMENTS INPUT AND OUTPUTS AND INDICATORS

Contemporary Value Linkage for Settlements	Input/output	Indicator
<u>Historical Camps</u> Respect↓↓↓ Pride↓↓↓ Tradition↓↓↓ Leadership↓↓↓ Rootedness/Sense of Place↓ Responsibility↓↓↓ Connectedness/continuity↓↓↓ Self Determination↓↓↓ Reciprocity /sharing↓ Self Reliance↓↓↓ Self Representation↓↓↓ Cohesion/bonding↓↓↓	<ul style="list-style-type: none"> ◆ Knowledge of Place ◆ Intergenerational transfer of knowledge ◆ Traditional property rights ◆ Customary laws of inheritance ◆ Spirituality ◆ Strength ◆ Health ◆ Defined role in community ◆ Recognition 	<ul style="list-style-type: none"> ◆ # of historic settlement/camp sites in S'ólh Téméxw ◆ # of historic settlements/camp sites ◆ # of historic settlements/camp sites within 500m of the existing pipeline ◆ # documented cemeteries/burial sites within 500m of the existing pipeline ◆ # documented cemeteries/burial sites within 1 km of the existing pipeline ◆ How do Stó:lō people feel about burials being disturbed? ◆ What would Stó:lō people like to see happen to material remains if disturbed? ◆ Is Stó:lō Heritage Policy being respected?

Contemporary Value Linkage for Settlements	Input/output	Indicator
<u>Housing and Accommodation</u> Respect↓↓↓ Pride↓↓↓ Tradition↓↓↓ Rootedness/Sense of Place↓ Responsibility↓↓↓ Connectedness/continuity↓↓↓ Self Determination↓↓↓ Reciprocity /sharing↓ Self Reliance↓↓↓ Self Representation↓↓↓ Cohesion/bonding↓↓↓	<ul style="list-style-type: none"> ◆ Shelter ◆ Health ◆ Security 	<ul style="list-style-type: none"> ◆ <i>S'ólh Téméxw</i> (size, age distribution, gender) ◆ Trends in Stó:lō population over the past 5 – 10 years ◆ # of residential developments crossed by the existing pipeline ◆ proximity of RW to residential developments ◆ # of homes on Stó:lō reserves ◆ Will residents be able to see construction or the RW once TMEP is operational from: <ul style="list-style-type: none"> ◆ Homes ◆ Community green space/parks ◆ Administration buildings ◆ Compatibility of land use bylaws or land zoning, of the TMEP within <i>S'ólh Téméxw</i>

10.4 Baseline - Habitation/Settlements

When describing this aspect of Stó:lō culture, two sub-activities were separated out to allow the ICA to select an appropriate range of indicators. Each sub-activity is discussed separately below, as the potential impact of TMEP and the associated mitigations, are different for the topics and therefore better presented independently.

10.4.1 Baseline – Camps and Winter Villages and Burials

A Cultural Heritage Overview Assessment (CHOA) was completed for the TMEP (KM 959-1147) by the Stó:lō Research and Resource Management Centre (SRRMC), in February 2014. The CHOA is provided in Appendix B. The provincial Remote Access to Archaeology Data (RAAD) database displays 151 previously recorded archaeological and historic sites within 1 km of the preliminary pipeline

corridor, 38 of which are located within 50 m of the preliminary corridor. See Table 5 – Previously Recorded Archaeological and Historic Sites within 50 m of Preliminary corridor.

SRRMC is also participating in the AIA (KM 1025-1092). This work is still underway. At the time of writing, TMEP has delayed AIA field work in the ICA to the end of March 2014.

10.4.2 Baseline – Housing on and Off Reserve

Aitchelitz, Skowkale, Shxwhà:y, Squiala, Tzeachten, Yakwekwioose, Kwaw kwaw Apilt, and Skwah Reserves all fall within Chilliwack city limits; Soowahlie and Cheam are on the outer limits of Chilliwack and Sumas falls within the city limits of Abbotsford. The style of housing varies from community to community, but single-family homes and duplexes are the most common. Some of the reasons noted by Stó:lō people about why there is a shortage of housing on-reserve include, limited land suitable for housing, financial barriers, such as challenges getting a mortgage or loan for reserve housing because it is Crown land and the rental payments received for some of the existing housing is not enough to maintain the housing maintenance. When housing is available, it is not always appropriate for all members, as the Tzeachten housing administrator (L. Archie, Pers. Com.) noted:

“There is a high percentage of disabled members that require renovations to accommodate handicap.” Lydia Archie, Stó:lō person (Skowkale)

BC Statistics show that about 55% (roughly 1,750 people) of the Stó:lō people live off-reserve. Many of the Stó:lō people living off-reserve would prefer to live on-reserve, however cannot due to the lack of dwellings. These Stó:lō people are therefore more likely to feel a sense of isolation, as described in the quote below. The housing administrator (L. Oberst, Pers. Com.) for Skwah also noted that:

“Skwah members want to move here because it is their community/home. When talking to people off-reserve they say they want to come home.”

The majority of the Stó:lō people living off-reserve are renting in S’ólh Téméxw. Vacancy rates for rental accommodation in S’ólh Téméxw have declined sharply in the past 2 years, and at the end of 2012, the Abbotsford-Mission area had a vacancy rate of 4.2% and Chilliwack’s was 4.1%. Rental rates have been increasing as well, with a 2-bedroom apartment costing about \$800/month in Abbotsford-Mission and about \$765/month in Chilliwack (CMHC Rental Market Report).

An indicator of the affordability of rental accommodation is the Housing Income Limit, which indicates how much annual income a household needs in order to be able to afford adequate accommodation. Households that fall below this Housing Income Limit would not have enough income to be able to afford adequate housing in a community. For Abbotsford the minimum income needed for a household requiring a 2-bedroom unit was \$33,500 and in Chilliwack it was \$32,500 in 2012 (Housing Income Limits). As described in the Economy Section of the ICA, many Stó:lō households would fall below this income threshold, and would therefore not earn enough to afford adequate housing in S’ólh Téméxw.

The lack of affordable housing is a crucial issue for Aboriginal poverty in BC. In 2008, it was estimated that there was a housing shortage on-reserve of 20–35,000 units and increasing, while

off-reserve, the core housing need among Aboriginal households is 76 per cent higher than among non-Aboriginal households (Pivot legal society, 2008, p. 91.). Aboriginal people are also over-represented among the homeless within Metro Vancouver, approximately 32 per cent of the homeless are Aboriginal (Still on our streets...Results of the 2008 Metro Vancouver Homeless Count, 2008).

Aboriginal women are highly vulnerable and need special attention. Aboriginal women are consistently poorer than Aboriginal men. In BC in 2000, Aboriginal women had an overall poverty rate of 38.2 per cent compared to 33.4 per cent for men and single Aboriginal women are far more likely to live in poverty, with a poverty rate of 63.8 per cent compared to 55.6 per cent for single Aboriginal men (Stats Canada, 2001). Aboriginal women are also significantly overrepresented among the homeless population, 45 per cent of homeless women are Aboriginal (Still on our streets.... Results of the 2008 Metro Vancouver Homeless Count, 2008).

10.5 Impact Assessment – Habitation/Settlements

Patterns of human settlement provide the necessary context to understand relationships between Stó:lō communities and their relationship to S'ólh Téméxw. As mentioned in the baseline information, the demand for housing has become an issue for Stó:lō people. Stó:lō people are forced to live off the reserve due to the lack of land, infrastructure and housing on their reserves.

10.5.1 Impacts – Historic Camps, Winter Villages Burials

This assessment will be completed as supplemental information to the ICA once the AIA is completed.

10.5.2 Impacts – Housing on and Off Reserve

The Socio-Economic Assessment (TMEP Facility Application Volume 5B. Part 3. Section 7.2.4) outlines the potential impacts from TMEP, on impacts on Stó:lō people living on reserve, during construction and site specific maintenance. A physical disturbance to IRs will result in a negative effect to the way in which individuals live, specifically in the case of populated reserves crossed by the pipeline corridor in proximity to residential areas (e.g., Tzeachten No. 13). Further disruption may occur related to the presence of construction crews, sensory disturbance from construction equipment and vehicles, and access restrictions.

The anticipated hub communities within S'ólh Téméxw are Hope, Chilliwack and Abbotsford which will be a base for construction spreads. The three hubs will house 550 on average and a high of 865 non-local workers during the construction phase. The types of housing includes the private housing market, rental accommodations and temporary commercial accommodations (e.g., hotels, motels, inns, campgrounds).

Stó:lō people directly affected by pipeline construction by virtue of location are defined as settlements with land that is intersected by the pipeline; settlements that have occupied residence within 500 meters of a construction site; settlements within 1 km of a construction site, accessible by foot; settlements that experience a substantial increase in traffic loads; and settlements within 5 km of a pump station. By this definition, all of the communities that are signatories to the ICA are

directly affected by the TMEP. Tzeachten and Sumas are intersected by the pipeline. Skowkale, Yakwekwioose, and Cheam are within one km of construction and traffic will likely be affected for Soowahlie (along Vedder Road) and for Aitchelitz, Squiala, Shxwhà:y, Skwah and Kwaw-kwaw-Apilt (along Lickman Road and Yale Road to the highway).

The size of non-local workers expected during construction and the population effects associated with TMEP-related indirect and induced employment growth during construction, will lead to an increased demand for short-term accommodations during the construction phase. It will also result in an increased use of recreation amenities by crews.

The Socio-Economic Assessment (TMEP Facility Application Volume 5, Part 2 Section 5.5.4.4) outlines the potential impacts from TMEP, regarding temporary accommodations. There will not be enough hotel/motel capacity for workers at times and in some case this is not a viable option. The District of Hope indicated they do not have enough hotel/motel capacity for workers. Summer construction would pose an issue for the communities within *S'ólh Téméxw*, as the timing would conflict with the primary tourist season. There are two annual inter-nation gatherings in Hope and Chilliwack, in the last week of May and first week of June. Every hotel/motel in Abbotsford and Chilliwack are fully booked in the second week of August for the Abbotsford Airshow. During the summer, Chilliwack and Abbotsford have an influx of seasonal migrant workers for agricultural work. Abbotsford alone has approximately 3,500 to 4,000 seasonal workers annually during the summer.

No temporary workers will stay on reserves during construction, so TMEP will not be contributing to stressors limiting Stó:lō people's ability to live on Reserve.

However, during construction, the use of rental accommodations will have a negative impact on Stó:lō people living off their reserve. The average rent for accommodations has increased and the average rental vacancy decreased, driven by population growth and low growth in rental stock. If crews used rental accommodations, affordability will be affected for Stó:lō people. Factors that make it more difficult for Stó:lō people to find affordable housing close to family living on reserve may stress value linkages related to: tradition↓↓, rootedness/sense of place↓, connectedness/continuity↓↓, cohesion/bonding↓↓, pride↓↓, respect↓↓, responsibility↓↓, self reliance↓↓, self determination↓↓, and self representation↓↓.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as medium. The likelihood will be likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of moderately significant.

10.6 Impact Summary

For the purposes of the ICA, the assessment on settlements considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with these activities. The areas of concern are:

- ◆ Historic camps, winter villages and burials
- ◆ Housing on and off Reserve

The AIA is not yet complete so the assessment on historic camps, villages and burials and the final rating cannot be completed. Thus – only potential TMEP effects to housing is presented at this time. As described earlier in Section 2.2.3 positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the table 10-3 below and linkages on the model are coloured grey.

H+H = H

H+M = H

H+P = M

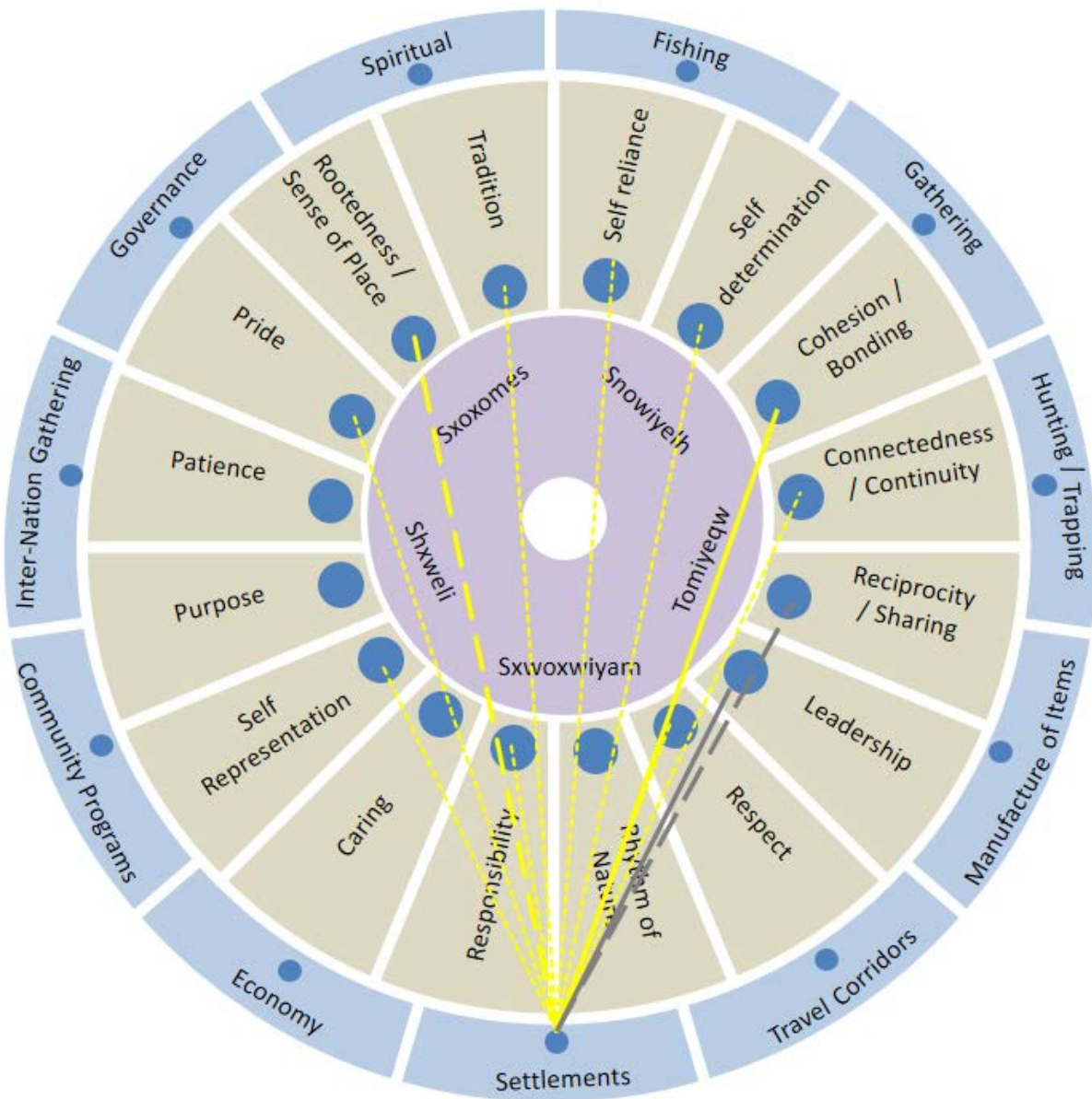
M+M = M

M+P = M

P+P = P

TABLE 10-3: PRE-MITIGATION SIGNIFICANCE RATING FOR HOUSING ON AND OFF RESERVE

Value	Camps and winter villages and burials	Housing on and off Reserve	Final Rating
<i>*Assessment not complete</i>			
Self Reliance↓↓↓		M	
Respect↓↓↓		M	
Pride↓↓↓		M	
Tradition ↓↓↓		M	
Leadership ↓↓↓		-	-
Rootedness/sense of place ↓		M	
Cohesion/bonding↓↓↓		M	
Responsibility ↓		M	
Connectedness/continuity↓↓↓		M	
Self Determination ↓↓↓		M	
Self Representation↓↓↓		M	
Reciprocity/Sharing↓		-	



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 10-3: POTENTIAL TMEP IMPACTS TO SETTLEMENT (HOUSING ON AND OFF-RESERVE)

10.7 Mitigation Recommendations – Habitation/Settlements

As described in the previous section TMEP is predicted to have moderately significant adverse impacts.

The following mitigation and enhance measures are recommended by Stó:lō as a way to minimize or avoid negative impacts as a result of TMEP.

The TMEP will submit to Stó:lō and NEB for approval the Worker Accommodation Strategy (TMEP Facility Application, Volume 6B, Application C, Section 8.4.4). The Worker Accommodation Strategy should include:

- ◆ A Plan for meeting with Stó:lō representatives and holding community meetings at least 6 months prior to arrival of construction teams in *S'ólh Téméxw* to inform Stó:lō people about construction activities, construction/work schedule, work force estimates, construction code of conduct, complaint procedure, potential safety issues, dates of future meetings, contact details of community liaison staff and construction hub locations.
- ◆ A plan to schedule construction activities so that there are no construction crews in Stó:lō communities that are holding key cultural events, as described in the Inter-nation Gatherings Section.
- ◆ A plan to ensure the temporary workers are not using rental housing in the study area and for monitoring short-term rental rates in the three hub communities and strategies to ensure any higher rental costs are not born by Stó:lō people.

10.8 Residual Impact Assessment – Habitation/Settlements

As described in the previous section TMEP is predicted to have moderately significant impacts. The mitigation recommendation section outlines actions that TMEP can take to minimize or avoid the adverse impacts.

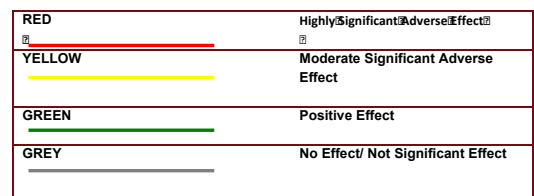
Assuming TMEP agrees to and implements the mitigation measures listed in the previous section, the following would be the residual impact of TMEP on habitation/settlements.

- ◆ Increased demand for short-term accommodation during construction.
- ◆ Upward pressure on price of rental short-term accommodations during construction.

During construction the direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be low, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as low. The likelihood will be likely. The combination of an importance ranking of low and a likelihood of likely results in a significance ranking of moderately significant.

TABLE 10-4: RESIDUAL SIGNIFICANCE RATING FOR HOUSING ON AND OFF RESERVE

Value	Camps and winter villages and burials	Housing on and off Reserve	Final Rating
<i>*Assessment not complete</i>			
Self Reliance↓↓↓		NS	
Respect↓↓↓		M	
Pride↓↓↓		M	
Tradition ↓↓↓		M	
Leadership ↓↓↓		-	
Rootedness/sense of place ↓		NS	
Cohesion/bonding↓↓↓		M	
Responsibility ↓		M	
Connectedness/continuity↓↓↓		M	
Self Determination ↓↓↓		NS	
Self Representation↓↓↓		M	
Reciprocity/Sharing↓		-	



INTEGRATED CULTURAL ASSESSMENT

11.0 HUNTING AND TRAPPING

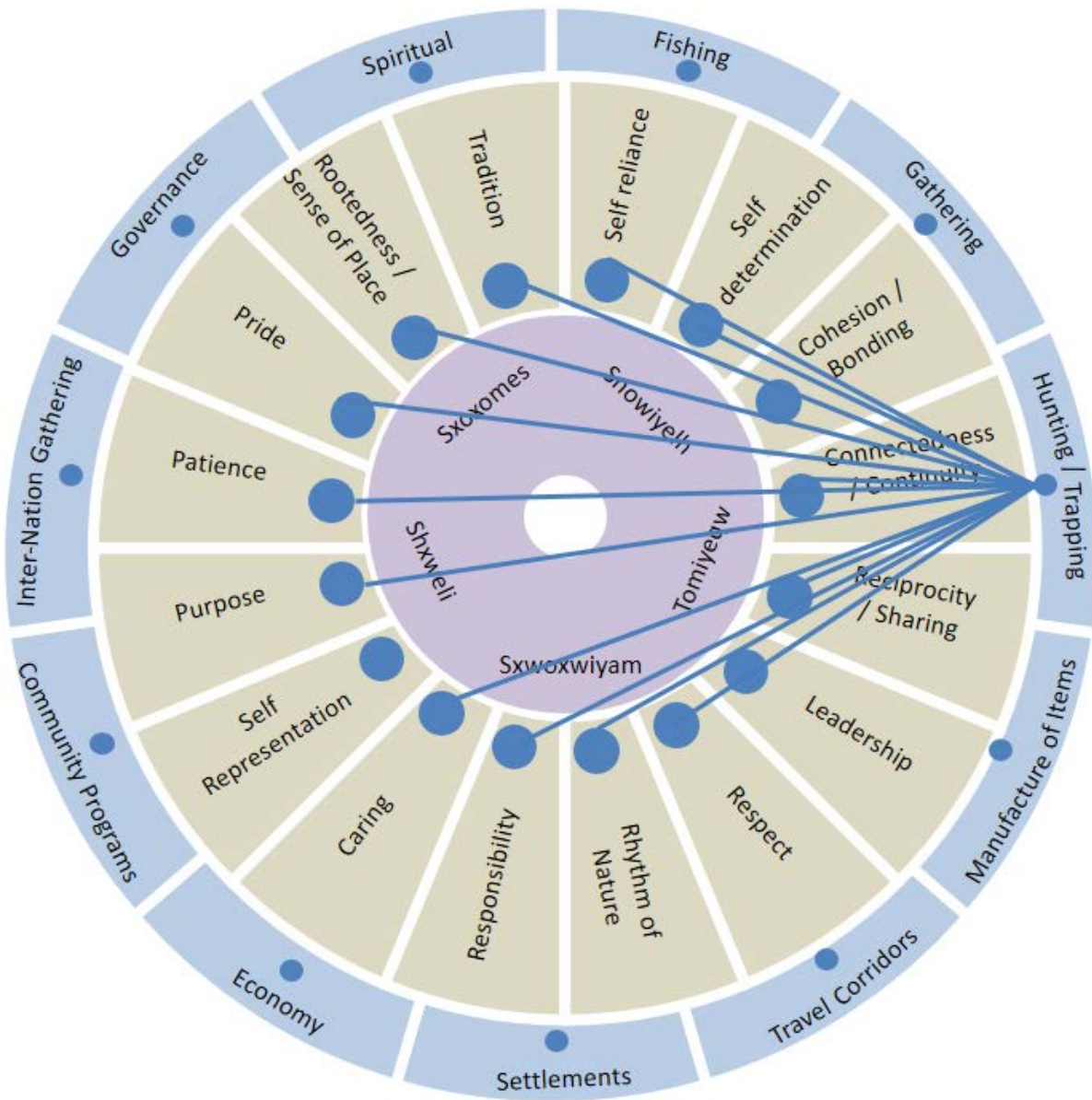
Stó:lō people harvest a variety of wildlife for food, medicine, building materials and ceremonial items. When describing “hunting & trapping” several sub-activities were separated to allow the ICA to select an appropriate range of indicators. These sub activities include:

- ◆ Wild game and bird hunting & trapping of furbearers
- ◆ Drying meat and tanning hides

11.1 Historic context for Hunting and Trapping

Hunting and trapping played a vital role in Stó:lō culture as it related to food, social, ceremonial, and economic purposes. All men were expected to be able to hunt, with few being exceptional or professional hunters (*tewít*). Hunting was done throughout all seasons including winter, using a wide range of resources and habitats between the lowlands and alpine landscape of *S’ólh Téméxw* (Schaepe 1998). Hunting was carried out in a manner that was linked seasonally to the life cycles of the prey species and to the scheduling of other important activities including gathering and fishing (Duff, 1952). There was great pride, a responsibility and knowledge in being an exceptional hunter (Wells, 1987).

Many animals were hunted and trapped which was key to the socio-economics of trade relations between indigenous trade partners; for example, via *stl’e’áleq* (potlatch) and in the emergent European fur trade and relations, along with fishing. Specific animals, specifically deer and ducks, were hunted not only for their meat, but were also hunted in order to provide materials for ceremonial pieces, such as drums and regalia. The meat of the animals were often dried in order to preserve the meat throughout the winter. Like every other activity, there were spiritual rituals and protocols that were followed in order to ensure reciprocity between the land, Creator, animal, and hunter. Respect for elders, the land, and animal was a value associated with hunting and trapping. Respect was shown in different ways, some were instilled in the protocols of killing the animal, giving thanks to the Creator, providing for the community, and offering the hunter’s first kill to the elders. Hunting, as with all aspects of Stó:lō land and resource use including fishing and gathering, was a factor of Stó:lō systems of resource management. As Figure 11-1 illustrates, hunting and trapping instilled a large number of cultural values.



Strong direct link to value	—————
Still 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 this activity	.....

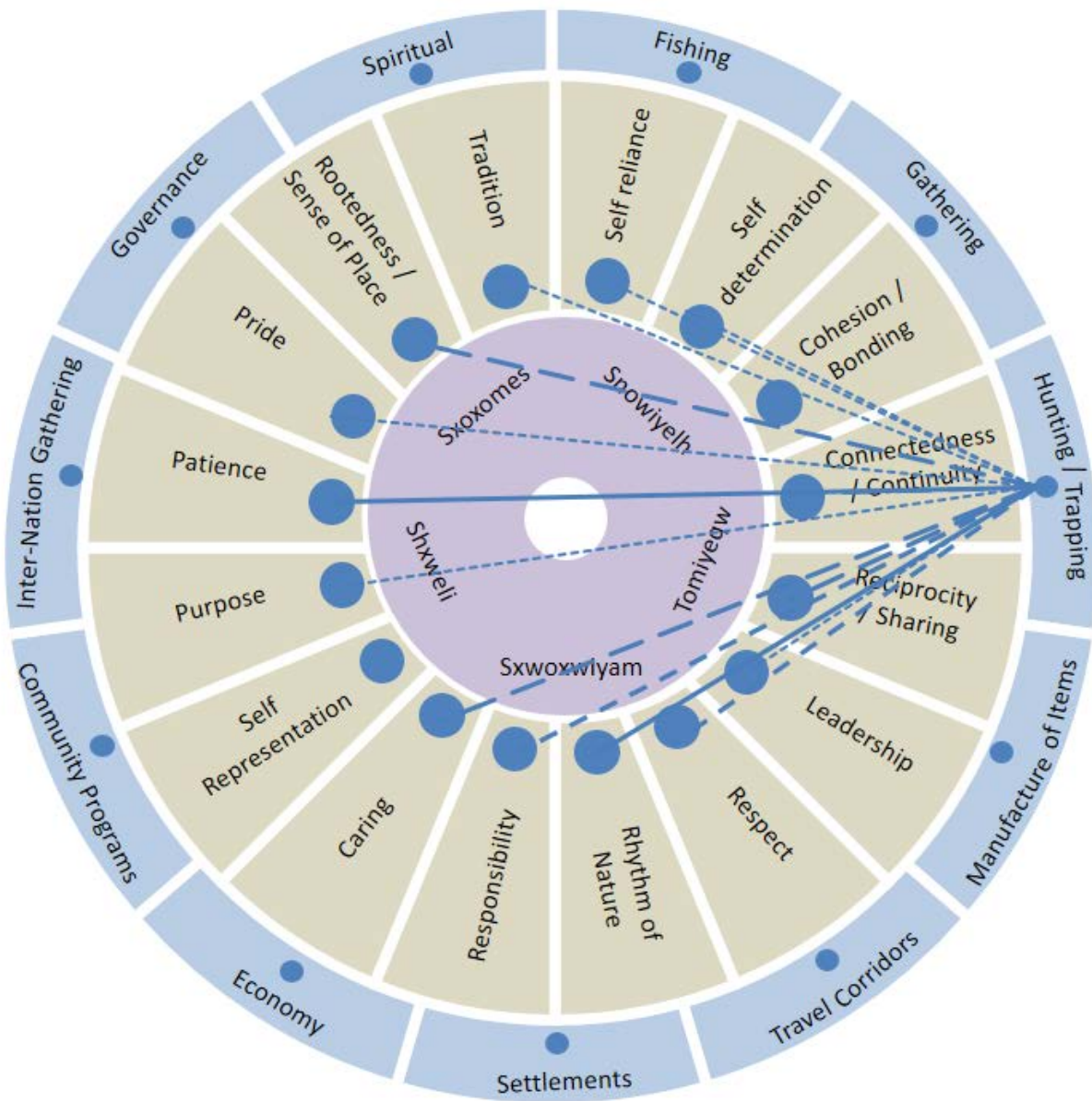
FIGURE 11-1: CULTURAL VALUES ASSOCIATED WITH HISTORICAL HUNTING AND TRAPPING PRACTICES

11.2 Contemporary context for Hunting and Trapping

Today, hunting and trapping continues to be considered important cultural activities, especially deer hunting. Although rare, there are still some trap lines remaining in various communities for trapping specific animals. Shared knowledge on how to set traps, skin animals and prepare meat and hides. Trapping, although rare among Stó:lō communities, is highly valued by Stó:lō people. Those who are still active within the community.

Hunting big game and wild birds, continues to provide meat for families and for social, cultural, and ceremonial activities. Hunting is sometimes done with a small group of men, friends or family members, making it a more social event in the latter case. However some prefer to go hunting alone, or have the opportunity to go alone more often than not. Some hunters use guns, while others prefer to use bows. Deer hides are still used for making ceremonial drums and regalia. Bird feathers and other parts of animals, are still used in ceremonial regalia when available. Protocols of killing remain the same, and caring and sharing with others still occurs. Hunting has been reduced as a result of fragmentation of *S'ólh Téméxw*, provincial hunting and gaming regulations, development, time pressures, and increased distance for undisturbed hunting sites. Few in the community continue the activity, but those who do are proud to continue with the tradition. Hunting is still an activity that plays an integral role in maintaining Stó:lō culture, especially in providing ceremonial materials and instilling values that are inherent in Stó:lō life.

As Figure 11-2 illustrates, hunting and trapping continue to instill a large number of cultural values although some value linkages have been weakened.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 11-2: CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY HUNTING AND TRAPPING

11.3 Indicators for Hunting and Trapping

Hunting and trapping practices have already been significantly impacted by development and land use restrictions. These stressors have affected the state of the contemporary value linkages presented in the Stó:lō cultural model (Figure 11-2). Within the context of the ICA, stressors include TMEP activities that occur during construction and operation; for example: tree clearing, construction noise, access modifications or conflicts with a temporary work force. During information sharing sessions, interviews and field assessments, several concerns related to hunting and trapping were raised. Table 11-1 lists community concerns and the related TMEP stressor.

TABLE 11-1: HUNTING AND TRAPPING CONCERNS AND TMEP STRESSORS

Hunting Trapping Concern	TMEP Stressor
Reduced ability to hunt/trap	<p>Construction</p> <ul style="list-style-type: none"> ◆ Clearing, ◆ Overburden storage, slash storage/ disposal, ◆ Removal of riparian vegetation ◆ Access restrictions/ building new access ◆ Noise ◆ Temporary Work Force
Reduced ability to provide wild meat to family, <i>Siyá:m</i> and cultural events	<p>Construction</p> <ul style="list-style-type: none"> ◆ Clearing, ◆ Overburden storage, slash storage/ disposal, ◆ Removal of riparian vegetation ◆ Access restrictions/ building new access ◆ Noise ◆ Temporary Work Force

For the purposes of the ICA, the Hunting and Trapping assessment will consider potential TMEP impacts to each of these areas of concern and discuss how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with these activities. In order to measure potential effects to cultural value linkages as a result of the TMEP, a series of cultural inputs and outputs were identified.

Inputs are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. For example, by considering the question “What do you need (i.e. what skills, knowledge, cultural tools) to successfully hunt and/or trap?” The ICA was able to develop a list of cultural characteristics and cultural tools associated with hunting and trapping. How these characteristics/cultural tools (or “inputs”) are applied to an activity like hunting is affected by values. By considering the question: “What do you get out of successfully hunting or trapping?” another list of cultural outputs was developed. Outputs affect values. Once inputs/outputs were identified, indicators were selected to help track changes in cultural inputs/outputs over time. Changes in these inputs and outputs are used as indicators of the cultural values themselves. The *Indicator report prepared for the ICA of the TransMountain Project* (TTML, SRRMC, HEG 2013) (Appendix A), provides more background on how contemporary cultural inputs and out puts affect linkages to cultural values.

Table 11-2 lists the indicators that will be considered to measure potential impacts to the cultural inputs and outputs associated with hunting and trapping. The state of contemporary value linkages shown in Figure 11-2 are also listed below in Table 11-2; downward arrows represent linkages that have been weakened over time due to various outside stressors and as such are vulnerable to additional developmental pressures.

TABLE 11-2: HUNTING AND TRAPPING INPUT AND OUTPUTS AND INDICATORS

Contemporary Value Linkage	Input/output	Indicator
Respect↓	◆ Knowledge of place	# of recorded Hunting /trapping areas <i>S'ólh Téméxw</i>
Pride↓↓	◆ Intergenerational transfer of knowledge	Occurrence of harvesting-related points of access within <i>S'ólh Téméxw</i>
Leadership↓	◆ Traditional skills	# of Stó:lō people that hunt and/or trap (subsistence/recreation)
Tradition↓↓	◆ Spirituality	◆ Why do Stó:lō people hunt and/or trap?
Responsibility↓	◆ Strength	◆ How confident are Stó:lō people that future generations will have the
Rootedness/Sense of Place↓	◆ Health	
Purpose↓↓		

Contemporary Value Linkage	Input/output	Indicator
Patience Connectedness/ Continuity↓ Rhythm of Nature Self Determination↓↓ Reciprocity/ sharing↓↓ Self Reliance↓↓ Caring↓	<ul style="list-style-type: none"> ◆ Wealth (supplemental) ◆ Traditional protocols ◆ Manufacture of cultural items ◆ Food 	knowledge and skills to hunt and/or trap? <ul style="list-style-type: none"> ◆ How would Stó:lō people feel if they couldn't hunt and/or trap? ◆ How far would Stó:lō people be willing to travel to hunt and/or trap? ◆ What limits how often Stó:lō people hunt and/or trap? ◆ Who do Stó:lō people go with to hunt and/or trap? ◆ Will Stó:lō people teach their children (grandchildren) to hunt and/or trap? ◆ Do Stó:lō people go to the same places to hunt and/or trap – Why? ◆ What do Stó:lō people hunt most often? ◆ How do Stó:lō people get to their favourite location to hunt and/or trap? ◆ Do Stó:lō people harvest as much wild meat each year that they want/need? ◆ Do Stó:lō people ever harvest more than they “need” – if so, what do they do with “extra”? ◆ How did Stó:lō people learn to hunt and/or trap? Time spent hunting and/or trapping (days/yr)

Contemporary Value Linkage	Input/output	Indicator
		<p>Avg. distance travelled from community to hunt and/or trap</p> <p># opportunities for Stó:lō elders to share knowledge and skills related to hunting and trapping</p> <p># cultural programs providing opportunities for Stó:lō youth to learn about hunting and trapping.</p>

11.4 Baseline for Hunting and Trapping

Within S'ólh Téméxw, three traditional hunting areas have been recorded. Traditional harvesting areas are shown on maps included in the Cultural Heritage Overview Assessment (CHOA), that was completed for the TMEP (KM 959-1147), by the Stó:lō Research and Resource Management Centre (SRRMC) and others, in February 2014. The CHOA is provided in Appendix B. Table 11-3 lists how many contemporary hunting/trapping and resource sites remain intact within 2km and within the ICA Study Area.

TABLE 11-3: CONTEMPORARY RESOURCE SITES WITHIN S'ÓLH TÉMÉXW AND WITHIN THE ICA STUDY AREA

<u>Resource Site</u>	<u># within the ICA study area w/in 100m corridor edge</u>	<u># resource sites within 2km</u>
Hunting/Trapping	<u>3</u>	<u>95</u>

Important hunting areas are Sumas Mountain, Mount Cheam, and the forested areas between Cheam and just east of Hope. Many of the hunters interviewed for the ICA had experience hunting in the vicinity of the proposed TMEP.

"When I was in my late-teens I started hunting lots. My uncle [name redacted], used to take me all along the lower hillsides to hunt for deer. Sometimes we would bring a shotgun and hunt for grouse as well. We would actually use the pipeline right of way as our trail along the bottom of the mountain, when we saw fresh deer tracks we would follow the trail up into the lower parts of the mountain. We always had luck up there, certain places would have lots of deer hanging out. Bino talked about how he learned to hunt around there with his older brother, and the use of this area for hunting that went back through the generations. This is the place I learned how to properly carry two deer at once, he showed me how to make a backpack out of one

deer, then the other one I would carry on my shoulders.” Eyteleq, Darwin Douglas – Bighouse Leader, Hunter & Fisher (Cheam)

Cheam people also utilized S’ólh Téméxw for trapping. One place that Cheam members trapped in the past was Cheam Lake (Cheam Research Group 2014). The Cheam Lake is still considered significant in terms of the spirituality of the site; but also the diversity of plants, birds, and waterfowl found around the lake and surrounding wetland.

“My grandfather Charlie Douglas used to trap in Cheam Lake. One time him and [name redacted] were trapping in the lake when there canoe tipped. This is a story that Beans told me himself. Their canoe tipped and they both fell in the lake. They ended up swimming to shore. Beans was soaking wet from falling in the lake, but my grandpa was bone dry. This was the time when my grandpa was given a power that later had him initiated into the sacred winter dance ceremonial life” Sruetslanough - Chief Sidney Douglas (Cheam)

Access to these sites have been restricted due to development. Mt. Cheam is still accessible by trails and footpaths, but has since changed due to the tourist attraction it has become. Mount Cheam now boasts trails, the ponds, has marked pathways, development, and increasingly more tourists coming for hikes, picnics, and the view. Other areas of Mount Cheam are undeveloped and more pristine and continue to serve Stó:lō people for hunting practices. However, Mount Cheam still has open hunting of Mule Deer, Black Bear, Coyote, Raccoon, Skunk, Snowshoe Hare, Bobcat, Cougar, Grouse, Ptarmigan, and more. Sumas Mountain has been excessively developed with provincial regulations prohibiting hunting with a firearm or crossbow.

Prior to 1988, Cheam Lake was drained to the point of ecological ruin. In 1988, Cheam Lake’s basin was refilled and by 1993 restored to its original levels. With the restoration of the lake, trapping, swimming, and fishing have all been prohibited for protection of its sensitive environment. Trapping on Sumas Mountain still occurs near some of the larger creeks and the Sumas River. While the number of trappers seems nominal it is preserved as a traditional activity that provides a connection to their ancestors, land, water, animals, and the Creator. Sumas Lake, an area that contained hundreds of birds, wildlife, and fish, was drained 99 years ago. This continues to leave an impact on Sumas First Nation, as it was a provider of all sorts of wildlife, birds, and fish.

It was estimated, based on information collected for the ICA, that at least 15-20% of Stó:lō people continue to harvest traditional materials for food, social, and ceremonial purposes.

“Not too often I eat meat from the store, I would sooner live on deer meat I was brought up on eh [...] its better, I find it is. [than from a grocery store]. I used to get sick sometimes from it, I have a hard time eating beef and pork I got really sick last time I couldn’t keep anything in my belly, wasn’t too long ago, when I broke down and bought a t-bone roast, almost like food poisoning.” A:yali:seleq, Jeff Point, Bighouse and Spiritual Leader (Skowkale).

“I hunt deer around Chilliwack Lake, Hope, near the Hope slide, I hunt moose in Merritt, and their migration follows the moon. I trap up in Sumas sloughs, and Bowman’s Island, still doing it.” Robert Jimmie Jr., Stó:lō Hunter (Squiala)

A traditional food diet is very important to the health of Stó:lō people. Those participating in winter dance ceremonies are encouraged and required to eat a traditional diet including wild game, fish, wild greens, berries and fruit. Many ceremonies throughout the year, in particular the winter dance ceremonies, require wild game meat and traditional foods (Cheam Research Group 2014). Many Stó:lō people still have a taste for wild game, and some who remember having eaten different game that is no longer available still crave that taste.

“We used to raid orchards down the road. My dad used to hunt pheasants, ooh [in delight of the memory] I haven’t tasted a pheasant for years, and we never had to go to the grocery store.” Amy Victor, Elder (Cheam)

Siyá:m traditional hunters are highly respected individuals in Stó:lō society. They take on a mentorship role when new “babies” are welcomed into the Big House, teaching them the history of S’ólh Téméxw, how to hunt and show respect for all other animals.

11.5 Assessment for Hunting and Trapping

Due to the impact of development with S’ólh Téméxw, fewer Elk, Moose, and Grizzly Bear are found in the area. Some areas continue to support local populations of deer, but generally, cumulative developmental pressures in S’ólh Téméxw has reduced the ability of Stó:lō people to hunt and trap. This has led to a concern for the health of future generations, who may not have access to wild meat.

Wild game, as a staple at ceremonies and an offering to the Stó:lō community, is a sign of an open heart and gracious attitude. Wild game is also a spiritual connection to the animal, land, ancestors, and the creator. Hunting provides nourishment of the body, which in turn provides nourishment of the soul.

It is estimated that approximately 486.8 ha of land mapped as Coastal Western Hemlock is within the TMEP corridor.

Important hunting areas include Sumas Mountain, Mount Cheam, and the forested areas between Cheam and just east of Hope. Clearing in these areas is expected to have adverse effects on hunting and trapping. Depending on the area, these effects could be felt at the individual and family level. The magnitude is expected to be medium, the duration will be long-term, and so is given an importance ranking of medium. Clearing of forested areas is likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of a moderately significant impact.

Traditional Values associated with hunting and trapping include Pride, Rootedness ↓, Purpose, Responsibility, Rhythm of Nature ↓ Tradition ↓, Patience, Self Determination ↓↓, Self Reliance ↓, Respect, Caring ↓, Damage to wildlife habitat will adversely affect these values. Developmental pressures that limit the ability of Stó:lō people to share and provide wild meat for family members and community events affects values associated with Reciprocity/Sharing, Leadership, Connectedness/continuity ↓, Caring ↓.

11.6 Hunting Impact Rating Summary

The hunting and trapping assessment considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with these activities. The areas of concern are:

- ◆ Reduced ability to hunt or trap
- ◆ Reduced ability to provide wild meat to family, *Siyá:m*, Big House-based activities, and cultural events

Based on the impact rating criteria described earlier in Section 2.2.3 cultural effects resulting from the TMEP have an additive effect.

Positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the table below.

H+H = H

H+M = H

H+P = M

M+M = M

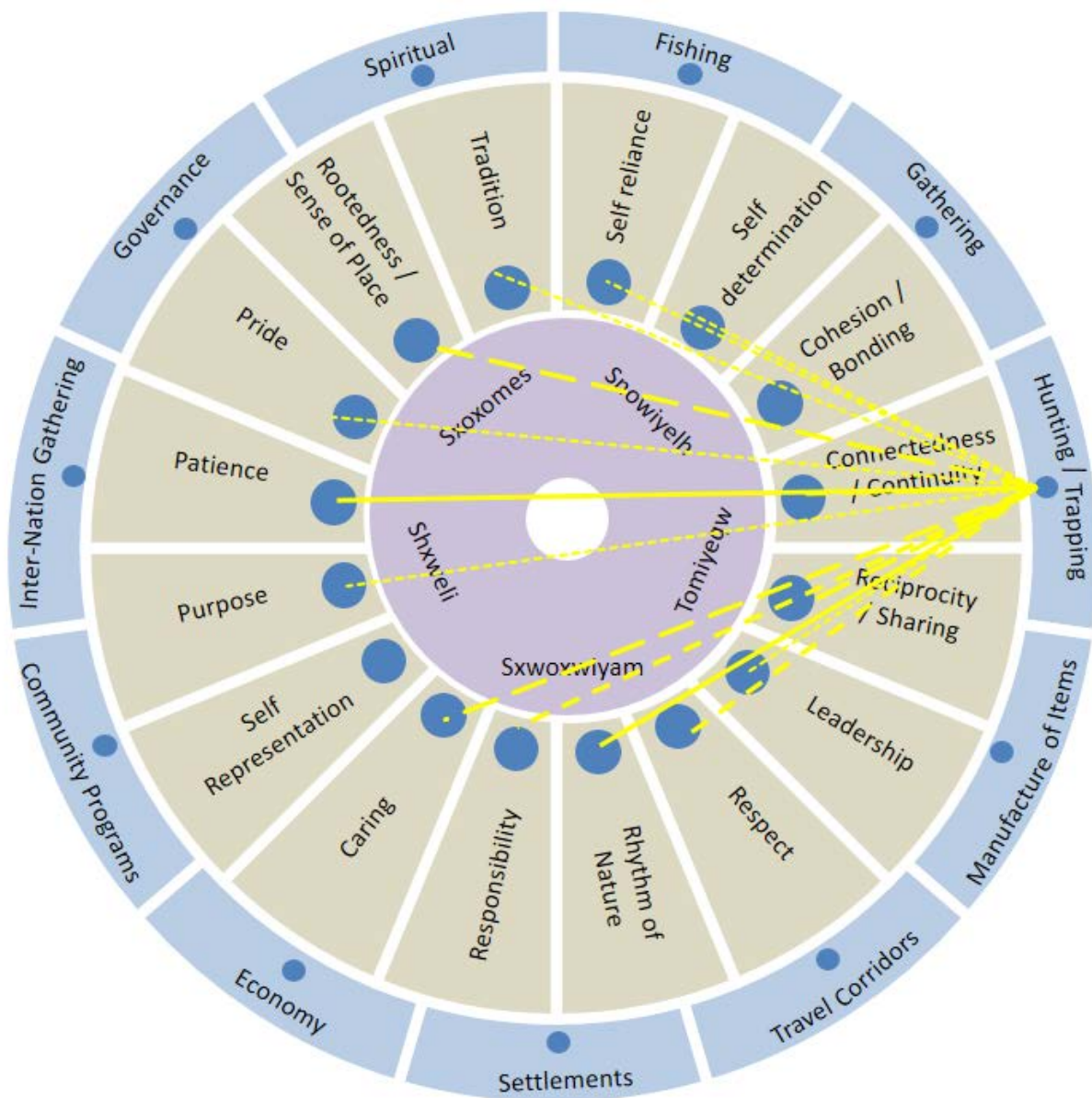
M+P = M

P+P = P

TABLE 11-4: POTENTIAL TMEP IMPACTS TO HUNTING AND TRAPPING

Contemporary value changes for Spiritual Activities	Lost ability to hunt or trap	Reduced ability to provide wild meat	Final Impact Rating
Respect ↓	M	M	M
Pride ↓↓	M	M	M
Tradition ↓	M	M	M
Leadership ↓	M	M	M
Responsibility ↓	M	M	M
Rootedness/Sense of Place ↓	M	M	M
Purpose ↓↓	M	M	M
Patience	M	-	M
Connectedness/Continuity ↓	M	M	M
Rhythm of Nature	M	-	M

Contemporary value changes for Spiritual Activities	Lost ability to hunt or trap	Reduced ability to provide wild meat	Final Impact Rating
Self Determination↓↓↓	M		M
Reciprocity/sharing↓↓↓	-	M	M
Self reliance↓↓↓	M	M	M
Caring ↓	-	M	M



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 11-3: POTENTIAL TMEP IMPACTS TO HUNTING AND TRAPPING

11.7 Recommendations

See recommendations in the Gathering Section 6.0. In addition to these recommendations,

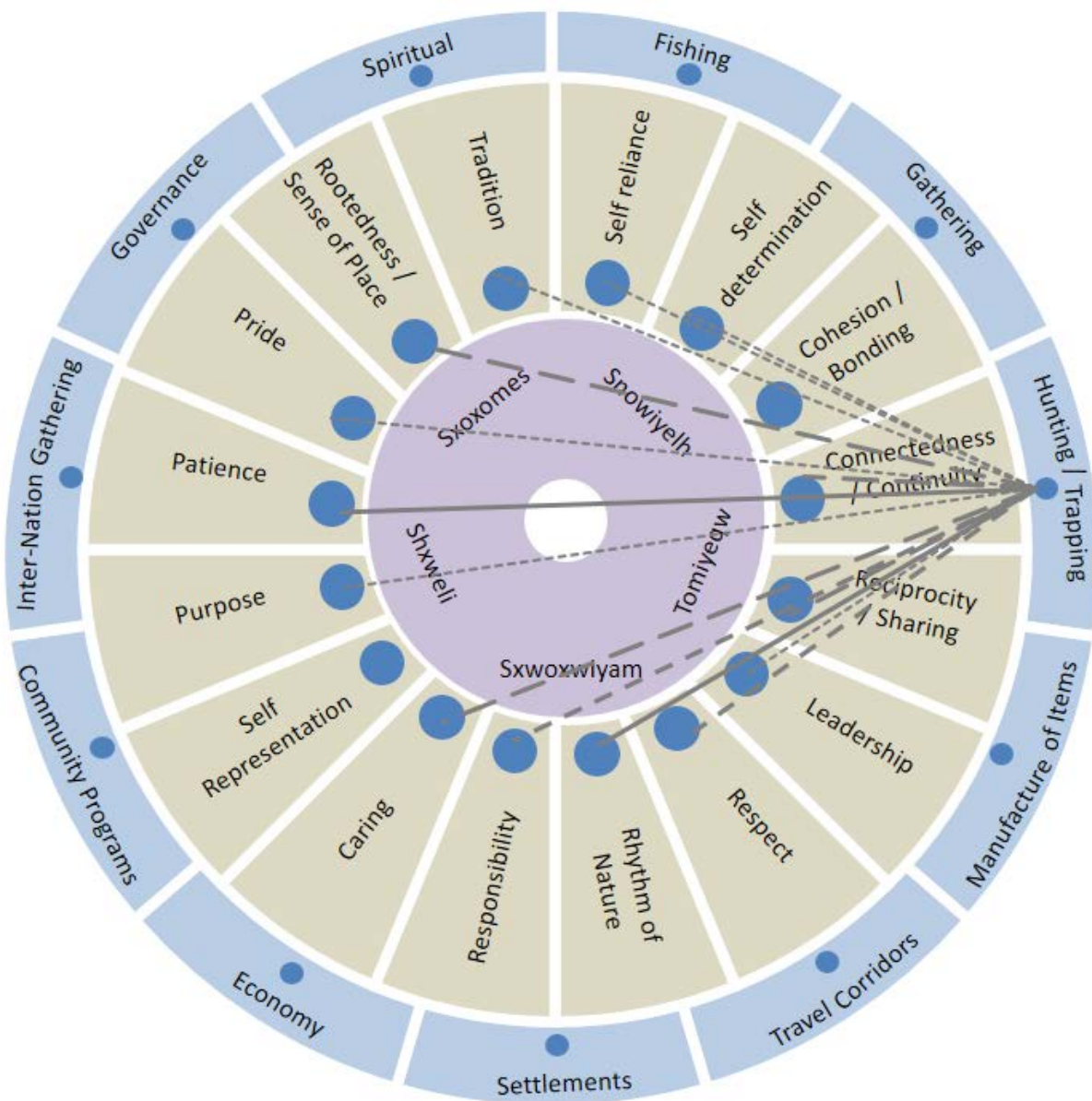
- ◆ Pre-construction centerline survey of native vegetation areas within *S'ólh Téméxw* to identify TMEP areas that may require special management for wildlife (i.e. gaps in overburden piles to facilitate wildlife passage, restricted clearing, alternate slash treatments for small mammal habitat, access controls etc.)

11.8 Residual Effects

If the TMEP is approved, Stó:lō representatives request that the recommendations listed above be implemented and made conditions of the CPCN.

TABLE 11-5: RESIDUAL SIGNIFICANCE RATING FOR HUNTING AND TRAPPING

Contemporary value changes for Spiritual Activities	Lost ability to hunt or trap	Reduced ability to provide wild meat	Final Impact Rating
Respect ↓	NS	NS	NS
Pride ↓↓	NS	NS	NS
Tradition ↓	NS	NS	NS
Leadership ↓	NS	NS	NS
Responsibility ↓	NS	NS	NS
Rootedness/Sense of Place ↓	NS	NS	NS
Purpose ↓↓	NS	NS	NS
Patience	NS	-	NS
Connectedness/ Continuity ↓	NS	NS	NS
Rhythm of Nature	NS	-	NS
Self Determination ↓↓	NS		NS
Reciprocity/sharing ↓↓	-	NS	NS
Self reliance ↓↓	NS	NS	NS
Caring ↓	-	NS	NS



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 11-4: RESIDUAL TMEP IMPACTS TO HUNTING AND TRAPPING

12.0 GOVERNANCE

Stó:lō governance has always been linked to resource access and management at the individual, extended family, village and tribal levels. The ability to maintain strong inter-dependent relationships with S'ólh Téméxw through traditional governance, is extremely important to the Stó:lō identity and cultural health, and central to Stó:lō understandings of self-determination and nationhood (Victor 2012). Part of enacting Stó:lō responsibility to this relationship, involves managing activities and development in S'ólh Téméxw. As the Royal Commission on Aboriginal Peoples noted,

“Aboriginal peoples are nations. That is, they are political and cultural groups with values and life ways distinct from those of other Canadians ... The commission's report is an account of the terrible consequences of distortion for Aboriginal people – loss of land, power and self-respect.”

12.1 Historical role of Governance

Stó:lō governance was based in a societal structure that existed on a multi-tiered level. The levels of society and governance varied accordingly and were based on specific leadership types, duties, and activities. Governance began at the household extending to kinship leaders, to village leaders, to tribal leaders and varied according to the situational context. Governance was based on an organized network including members of extended family or close friends among high status people (*Siyá:m*). It is important to note that high status does not mean of greater wealth in monetary and materialistic items, but of the knowledge of family, ancestors, and culture. The collective identity of the *Xwélmexw* (see definitions) was of key importance to the governance structure of the Stó:lō people as it maintained a purpose for inter-village marriages, kinships, trade, socio-economics, and an understanding of relations among communities. (Please refer to the attached Indicator Report for the Integrated Cultural Assessment for the Proposed Trans Mountain Expansion Project governance section and references for a complete list of references related to this topic),

Stó:lō people were self-governing for thousands of years, and, although faced wars and competition between villages within its boundaries, worked together at times of hardship and war or invasion from others. Stó:lō governance was linked to the resources available within the territory. For example, responsibility for specific sites for fishing, gathering, and hunting were passed on through naming customs and were held within extended families (See Carlson 2010, p. 47). While many resources were owned and coordinated within extended families, certain types of resources belonged not to specific families, but to villages or tribal communities (Carlson 2010, p. 47). Stó:lō leaders were meant to provide for the community, especially during hard times and as such were highly knowledgeable in terms of both public and private knowledge; some with specific areas of knowledge within the culture. Resource ownership and access was directly linked to leadership and governance that was collectively linked to the individual and extended family.

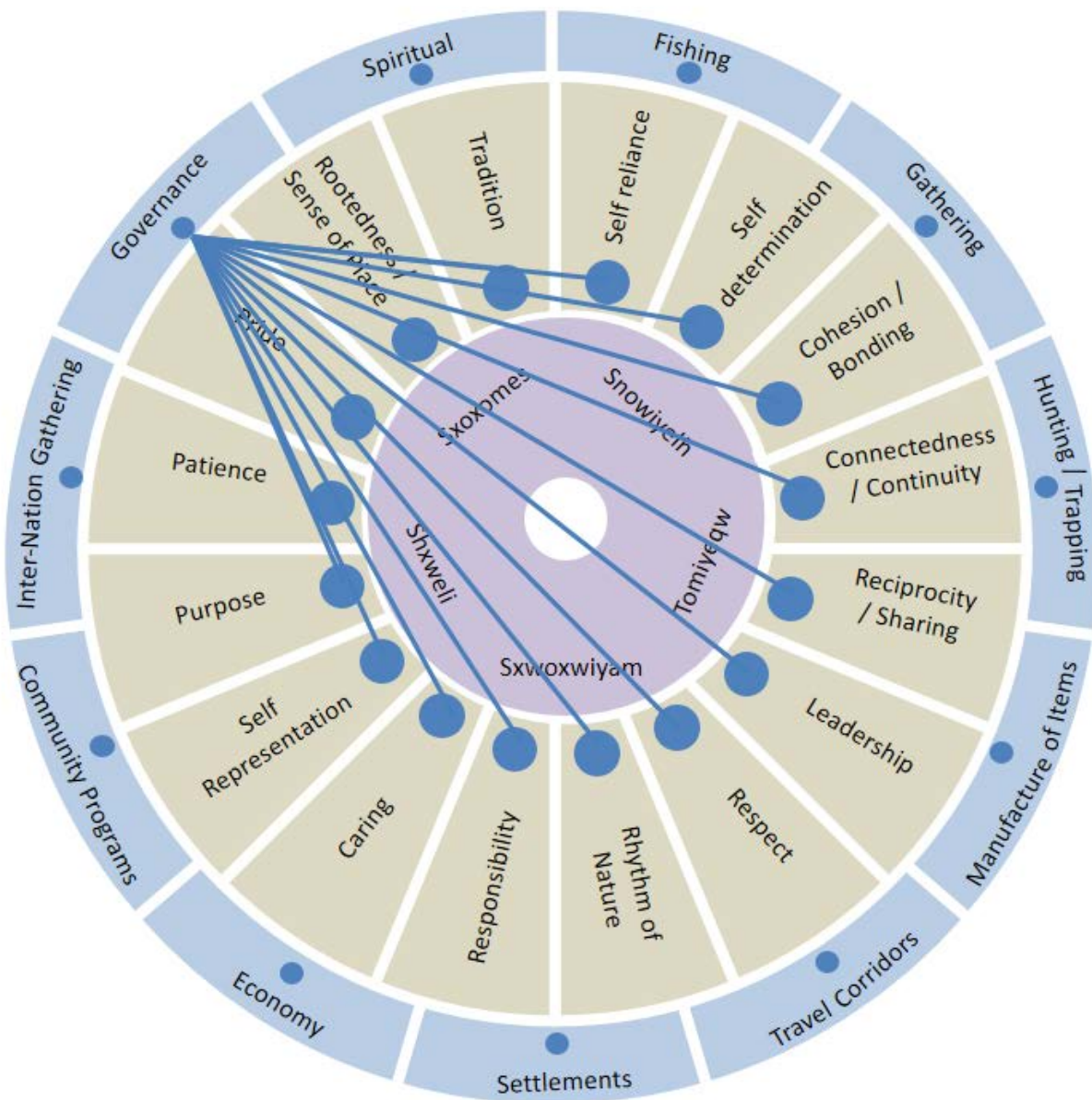
Many types of activities and events, including *stl'e'á/eq* (large scale gatherings commonly referred to as potlatches among Northwest Coast peoples), were directly linked to governance structures. Namings, weddings, and funerals were all significant events associated with the inheritance of rights associated with specific resource sites. Such gatherings were also associated with the resolution of disputes among family or between villages regarding such rights. Such gatherings, then, were key processes in building and maintaining social and political capital, and gaining access (customary rites) to specific sites. The Longhouse (the Bighouse or Smokehouse of today) played an important role in governance as it was a domestic centre and place where particular rites and ceremonies took place, especially those that were important to future *Siyá:m*, and establishing relations of rights, roles and responsibilities among the populace.

Stó:lō Governance was based on caring, reciprocity, and leadership. Stó:lō leadership often took the form of mentoring others, caring for the village was a key identifier of a great leader, and was shown through ceremonies, giving of gifts, generosity toward Stó:lō individuals, family, and other relations. As such, ceremonies were the main environments for governance.

Traditional Stó:lō leadership, established pre-contact, was based on respect for and selection by the people of *Siyá:m*; as leaders to follow. *Siyá:m* are characterized by the following traits:

- ◆ Were wealthy
- ◆ Knew their history
- ◆ Knew their genealogy
- ◆ Had an unflawed set of family relations
- ◆ Knew their territory and had extensive connections at a regional level, between tribal areas;
- ◆ Had a defined role by knowing what their responsibilities entailed;
- ◆ Were recognized by the people by the name they carried and the language they spoke;
- ◆ had and respected their spiritual powers and partners; and
- ◆ Women (wives, sisters, *Sí:le*) played prominent roles within their lives.

As figure 12-1 illustrates, many traditional values were taught and reinforced by traditional governance systems.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 12-1: CULTURAL VALUES ASSOCIATED WITH HISTORIC GOVERNANCE ACTIVITIES

12.2 Contemporary Governance

The devaluation of Stó:lō governance is a result of the continued fracturing of Stó:lō society through colonial history including reserve delineation and enforcement of residential schools, lack of movement and freedom of choice in settlement areas, ban on ceremonial and governance practices through the anti-potlatch law, and the enforced adoption of colonial governance structures through the *Indian Act* band council system (Victor, 2012). In the late 1800's, there were a number of changes in the ability of Stó:lō people to self-govern and to maintain collective ties with kin. One major change was the implementation of reserve systems and appropriation of Stó:lō lands that quite literally placed Stó:lō people onto specific tracts of land that were held by the Canadian government (Harris, 2002). The reserve system has fractured community ties, kinship ties, and tribal identity, as Stó:lō people were confined to small patches of land when once they were able to move across the territory as they pleased. Stó:lō people, like all First Nations, were also subjected to choose a Christian religion, be given a Christian name, and were removed from their family homes to attend residential schools, all of which resulted in the loss of language, cultural knowledge, family structure, and connectivity with their ancestors and kin, all of which created major impacts that still continue today (Fournier, 1998; Carlson, 1997).

The legislative acts accompanying reserves was the 1880 amendment of the *Indian Act* and the 1869 *Act for the Gradual Enfranchisement of Indians*. These infringements on Stó:lō governance created inefficiency, mistrust, disorganization, and mismanagement of “band” funds and community property. Of great impact to Stó:lō people was the ban of the *stl'e'áleq* ('potlatch'). The reciprocity of governance no longer held a strong place at the forefront of governance and led to the dependency of Stó:lō people on the Federal government as wards of the state. As with many colonial integrated governance structures, the *Indian Act* band council system of elections and terms has led to a highly stressed system of governance, power inequality, diaspora, and displacement of women's leadership roles.

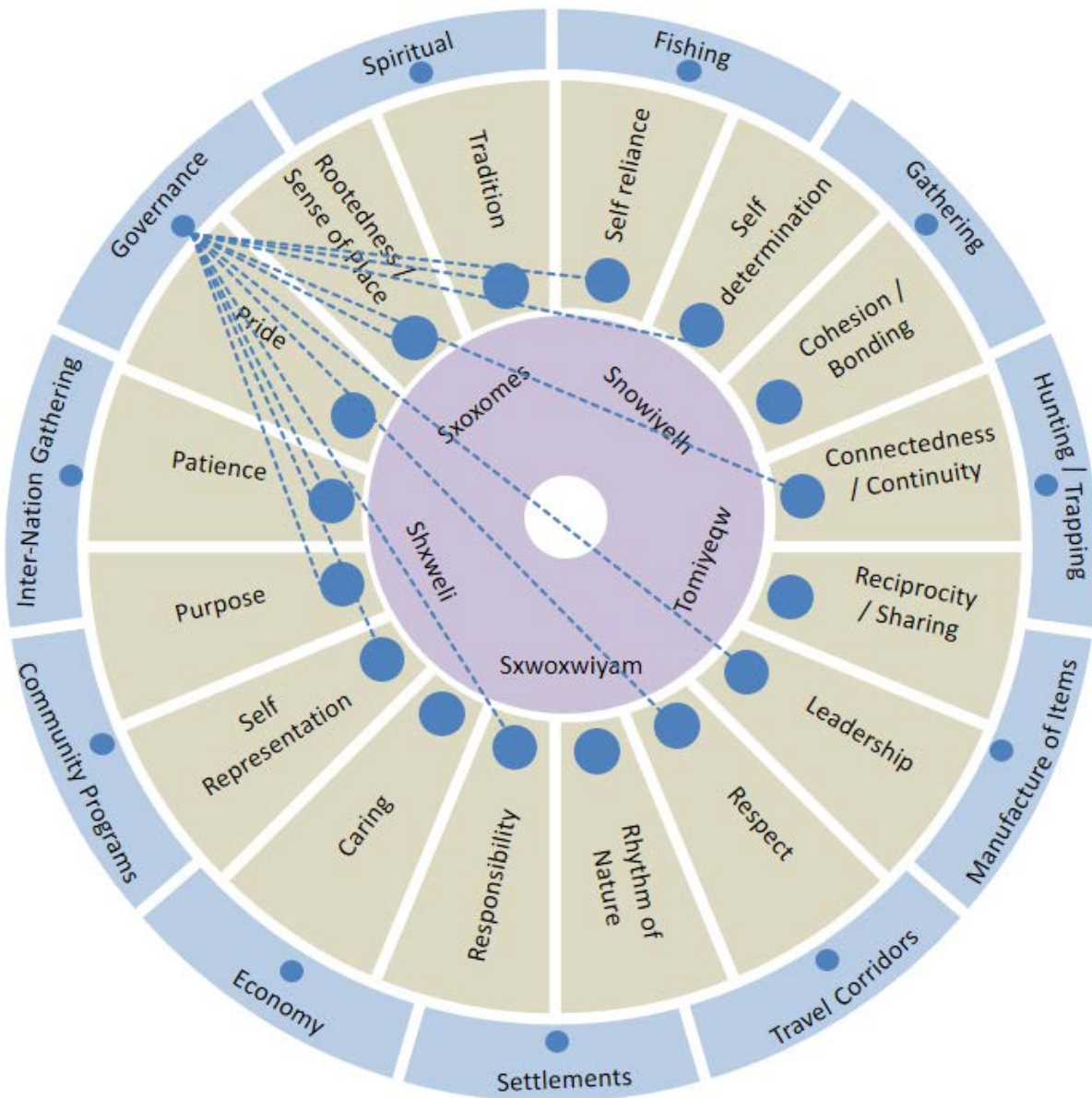
Today, *Indian Act* elected Stó:lō Chief and Councils and community administrations work with Canada to govern activities on the reserve. However, there have always been efforts to resist these imposed systems, and in recent years, Stó:lō people have been working to restore traditional governance systems as part of their overall effort to gain recognition of inherent Rights and Title and re-assert governance within *S'ólh Téméxw*. For example, in 2009 the Stó:lō Nation developed a vision statement, which encompasses the social, political, economic, and cultural development of the Stó:lō people, as a nation. It is an attempt to collectively aspire to a better world for Stó:lō people - the people of the river, in a manner that is governed by its distinct culture and traditions, where each and every Stó:lō individual will attain a decent quality of life and dignity. Another example of an effort to transcend the limits of band council structures and re-assert Stó:lō governance practices within *S'ólh Téméxw* is captured in the following statement from a Cheam member:

“We can't regain control of the land as just Cheam, we're doing it as Pil'Alt tribe, that's why we've been working towards rebuilding that form of our governance. Indian act elected chiefs and council... their authority only lies within the boundaries

of the Indian reserve. But if you look at the bigger picture and the laws already have stated that the courts are waiting for the Aboriginal communities to build their governance systems to start recognizing them.” Siamteleq (Charles “Corkey” Douglas) – Traditional Governance expert; Cultural leader; Ceremonial Regalia expert; Community Fishing Siyá:m)

Much of the resurgence of Stó:lō governance has taken place within the Bighouse, and the renewal of Syúwél (*Smílha*) ceremonies. Cultural practices associated with the Bighouse are increasing their profile through increased community participation. Many of these activities, previously practiced underground, are emerging to foster unification and connectivity among Stó:lō communities (Boisselle 2011/2013, Victor 2012). During ICA information gathering sessions, it became clear that participation in traditional activities and political movements is increasing throughout S’ólh Téméxw. Other efforts of unification, self-governance, and connectivity – undermining the power of *Indian Act* structures – include government agreements, tribal society formations, such as Ts’elxwéyeqw Tribe, and governing systems that embody traditional, customary laws and organizational frameworks. First Nations from three Stó:lō tribes (made up by 7 Indian Act Bands) are currently working together through the Stó:lō Xwexwilmexw Treaty Association (SXTA); they are currently in Stage 4 of the Treaty Process.

As a result of these movements, many traditional values continue to be taught and reinforced by today’s governance systems (Figure 12-2). The dashed lines connecting governance to a number of values indicates that there are fewer places and fewer people carrying out this activity, thus the extent to which the value is instilled is lessened (see Table 2.2-1).



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 12-2: CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY GOVERNANCE

12.3 Indicators for the ICA related to Governance

During the community meetings with Stó:lō people, they expressed concern over the lack of governance control that they have within S'ólh Téméxw. Stó:lō people indicated that the decision-making process for the TMEP is a continuation of governance decisions over development in S'ólh Téméxw being made outside of their own governance system. Some comments from Stó:lō people are include below:

"It seems like we have less and less say in what happens in our surrounding nation. Feels like we are not included in major community plans and initiatives." Willy Hall, Stó:lō Leader (Skowkale)

"The lack of control over activities in S'ólh Téméxw has affected my sense of connection to culture. I feel we are losing more and more control over our traditional land" Christina McCarthy, Stó:lō person (Skwah)

"We have to travel further to be able to have traditional swims. Not being able to say no to big corporations from invading our current traditional lands puts our areas at risk." Nicholas Bello, Stó:lō person (Shxwhà:y)

TABLE 12-1: GOVERNANCE CONCERNS AND TMEP STRESSORS

Governance Concern	TMEP Stressor
<ul style="list-style-type: none"> ◆ A feeling of dis-empowerment or dislocation regarding control over S'ólh Téméxw ◆ TMEP in-compatibility with Stó:lō land use goals ◆ Invocation of the lands expropriation act – loss of lands and undermining of Stó:lō governance ◆ Use of reserve against reserve in negotiations rather than collective First Nation negotiations ◆ Access to traditional lands and resources (as identified in spirituality and fishing sections) used for ceremonies and in governance practices 	<ul style="list-style-type: none"> ◆ TMEP approval process ◆ Land use restrictions ◆ Threat of removal of lands ◆ Negotiations behind closed doors with different bands without acknowledgement of traditional territory and tribal unity ◆ Clearing of RW ◆ Construction noise ◆ Refer to spirituality and fishing section

*STRESSOR: EXTERNAL FORCES THAT AFFECT THE WAY KEY CULTURAL ACTIVITIES ARE CARRIED OUT

For the purpose of the ICA, the governance activities assessment will consider potential TMEP impacts on each of these areas of concern and discuss how TMEP stressors (elements causing project effects) could affect Stó:lō values associated with governance.

In order to measure potential effects to governance value linkages as a result of the TMEP, a series of cultural inputs and outputs were identified. Inputs are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. For example, by considering the question “What do you need (i.e. what skills, knowledge, cultural tools) to successfully govern S’ólh Téméxw?”; the ICA was able to develop a list of cultural characteristics and cultural tools associated with various governance activities. How these characteristics/cultural tools (considered “inputs”) are applied to an activity such as governance is affected by values. By considering the question: “What do you get from governing S’ólh Téméxw?”, another list of cultural outputs was developed. Outputs affect values. Once inputs/ outputs were identified, indicators were selected to help track changes in cultural inputs/outputs over time. Changes in these inputs and outputs are used as indicators of the cultural values themselves. The *Indicator report prepared for the ICA of the TransMountain Project* (TTML, SRRMC, HEG 2013) (Appendix A) provides more background on how contemporary cultural inputs and outputs affect linkages to cultural values.

An understanding of governance systems is necessary to understanding relationships within and between Stó:lō communities, other First Nations, and other governments (Provincial, Federal) and third party interest groups (e.g., industry). The ICA focuses on factors the dynamic between traditional and foreign / imposed governance systems within Stó:lō society as basis of selecting indicators for the ICA.

Table 12-2 lists Values associated with governance. It also lists the cultural input/outputs Stó:lō people associate with this activity, and the chosen indicators of Governance activity. Downward arrows represent linkages that have been weakened over time due to various outside stressors and as such are vulnerable to additional developmental pressures. Sections 2.0 describes the linkages between historical inputs, outputs and values; and contemporary input, outputs and values in more detail and present how these linkages are perceived through the Stó:lō cultural model.

TABLE 12-2: CONTEMPORARY GOVERNANCE INPUTS AND OUTPUTS AND INDICATORS

Contemporary Value linkage for Governance Activities	Input/output	Indicator of Governance activity
Respect↓↓	◆ Ability to take care of each other	◆ Number of First Nations, Tribes
Pride↓↓		Tribal councils, families associated with S’ólh Téméxw
Tradition↓↓	◆ Right to govern	
Leadership↓↓	◆ Resource rights and management	◆ Active Stó:lō decision making frameworks
		◆ Stó:lō policies applied to

Contemporary Value linkage for Governance Activities	Input/output	Indicator of Governance activity
Rootedness/ Sense of place↓↓↓	◆ Empowerment	existing pipeline
Purpose↓↓↓	◆ Language	◆ Compatibility of land use bylaws or land zoning, of the TMEP within <i>S'ólh Téméxw</i>
Responsibility↓	◆ Gender roles	
Connectedness/Continuity ↓↓↓		◆ Feelings of disempowerment/Dislocation
Self Determination↓↓↓		
Self Reliance↓↓↓		
Self Representation↓↓↓		

12.4 Governance Baseline

There are 30 Stó:lō communities that have a historical and on-going interest in *S'ólh Téméxw*. The 30 Stó:lō communities each have their own decision making framework. There are also collective entities that share decision making frameworks.

The following is a list of provincial and/or national advisory groups/political entities in which Stó:lō people participate. These groups and entities do not have governing authority but they come together for common interests and concerns to approach the Canadian governments as a political force. These political groups are advocates of the Stó:lō communities but do not have decision making authority:

- ◆ First Nations Alliance for Land Management
- ◆ First Nations Land Advisory Board Resource Centre
- ◆ Assembly of First Nations (Both Provincial and National political bodies)
- ◆ BC Union of Chiefs (Provincial political body)
- ◆ First Nations Summit (Provincial political body)

- ◆ First Nations Leadership Council (Provincial political body) and various sub-councils under this umbrella (i.e. First Nations Energy & Mining Council, First Nations Health Council, etc.)
- ◆ Coast Salish Gathering

Within *S'ólh Téméxw*, Stó:lō people have developed a number of collective associations that are providing programming and/or decision-making structures for activities in specific governance areas. A list of these collective associations is provided below:

- ◆ Stó:lō Engagement Agreement Pilot Project (consultation and referral processing)
- ◆ Lower Fraser Fisheries Alliance (Specific to Stó:lō people and S'ólh Téméxw)

The Lower Fraser Fisheries Alliance (LFFA) is comprised of thirty (30) Stó:lō communities from the mouth of the Fraser River to the Canyon. The LFFA was established in 2010, and has been empowered by its Stó:lō communities to establish a First Nation to First Nation working relationship and build capacity. The organization will work towards collaborative management processes in the future. This will help facilitate discussions with local, federal and provincial governments regarding the recognition of First Nations inherent rights with respect to the management of fisheries and aquaculture. LFFA would will begin building relationships with Provincial and Federal Governments, as well as, commercial and recreational fishers (LFFA, 2012).

- ◆ Stó:lō Xwexwilmexw Treaty Association (SXTA)
- ◆ Ts'elxwéyeqw Tribe Management Limited
- ◆ Stó:lō Tribal Council (Service Provider and Governance/Rights & Title advocacy)
- ◆ Stó:lō Nation Society (Service Provider)

As part of respecting traditional Stó:lō governance systems, in varying degrees, these groups may turn to the *Siyá:m*, *Sí:le*, *Sia:teleq* and other respected community leaders to give them advice on governing matters. Many contemporary enactments of traditional governance and leadership activities happen across a range of governance settings, events and activities – including resource harvesting (e.g., fishing) and spiritual activities (e.g., *Syúwél*, *Smílha*), as well as within formal, inter-governmental political relations. Traditional governance practices remain intact although disrupted in relation to the Stó:lō collectives listed above. (see Victor 2012 pp.267 – 286).

While many challenges remain in asserting Stó:lō traditional governance practices within the contemporary context, present-day Stó:lō organizations regularly assert Stó:lō values and jurisdiction through a system of Stó:lō policies and organizational framework. The following existing Stó:lō policies should be applied to the TMEP:

- ◆ Stó:lō Heritage Policy

- ◆ Stó:lō Archives and Library Policy
- ◆ Stó:lō Environmental Policy (Draft)
- ◆ Stó:lō Consultation Policy (Draft)
- ◆ S'ólh Téméxw Use Plan (v10)

For example, the S'ólh Téméxw Use Plan (v10) states it “is currently being applied as an aspect of Stó:lō involvement in resource management and development planning broadly throughout S'ólh Téméxw in the following areas of application:

- ◆ *Referral Review informing the Consultation and Accommodation Process – via the Stó:lō Strategic Engagement Agreement Pilot Project, including six of seven SXTA First Nations, as well as eight other non-treaty Stó:lō communities.*
- ◆ *Cultural Heritage Overview and Impact Assessment processes (CHOA)*
- ◆ *High-Level Strategic Planning of Land and Resource Use*

These applications actively inform the development of high-level government-to-government relations between the Province (mainly) and various Stó:lō First Nations and collectives regarding land and resource use off-reserve, and potential treaty settlement land throughout S'ólh Téméxw. The S'ólh Téméxw Use Plan serves as a mechanism for pre-treaty inter-governmental relationship building around land and resource management, and shared decision-making” (SRRMC, 2014).

Stó:lō people also have a number of program service providers that are active in creating and enacting policy such as those outlined above. The following service providers work in support of Stó:lō governance issues include:

- ◆ Stó:lō Research and Resource Management Centre
- ◆ Fisheries
- ◆ People of the River Referrals Office
- ◆ Education
- ◆ Community Development
- ◆ Qwí:qwelstóm Justice Program
- ◆ Job Training
- ◆ Fraser Valley Aboriginal Children and Family Services Society/Xyolhemeylh

◆ Aboriginal Children and Family Chiefs Coalition

The goals of many of these service providers are reflected in the policies they help to create and enact. Overall, they seek to restore values related to leadership, self-determination, pride, respect, tradition, purpose, responsibility, self-reliance and self-representation. These values are essential in maintaining overall community health and wellness.

12.5 Impact Assessment – Governance Activities

Stó:lō people indicated that they are concerned that the TMEP will be reviewed, approved, constructed and operated outside of Stó:lō governance systems and without consideration of Stó:lō values. They are also concerned that the TMEP will further limit the ability of Stó:lō people to use the land in the way that they want (for example, due to land use restrictions within the RW, or future plans for economic development of TSL).

As described in the governance baseline (Section 12.5) above there are a number of Stó:lō governance entities and associations that aim to guide and direct development in *S'ólh Téméxw*. However, their authority to do so has been greatly reduced by historical and present day processes of colonialism enacted by Canadian governments and supported by the non-aboriginal society. The TMEP is not required to seek approval through the Stó:lō governance structures. Stó:lō governance control is mostly limited to reserve lands and even there the ultimate control rests with the Federal government.

In August 2005, Kinder Morgan acquired the Trans Mountain Pipeline from Terasen. This acquisition was not accompanied by the required consent of the Minister of Indian Affairs to the assignment of rights. Therefore, the indenture for the existing pipeline to pass through Tzeachten reserve IR13 and Grass Reserve IR15 attached to Terasen Gas was not legally transferred to Kinder Morgan. While not described in the ICA, negotiations around the Indenture are ongoing and will be addressed separately.

Respect for Stó:lō governance in the context of the TMEP can only be achieved through full involvement of Stó:lō people in the decision-making process as authorities within *S'ólh Téméxw*. Currently, the Canadian decision making process does not reflect this respect. Instead, limited acknowledgements of Stó:lō knowledge and interests are reflected in opportunities to participate in the process of gathering information for the Canadian NEB decision-making process. For example, The CHOA and ICA completed for the TMEP met the terms of the following policies:

- ◆ Stó:lō Heritage Policy
- ◆ Stó:lō Archives and Library Policy

Kinder Morgan made some efforts to respect traditional leaders by funding the information gathering carried out by TTML through the Qwō:qwel process and for the ICA. These two initiatives enabled TTML to work, to some extent, within traditional governing systems to gain input and develop

positions and recommendations related to the TMEP. The advice of traditional leaders and community representatives (i.e. *Siyá:m*, *Sí:le*, *Sia:teleq* and other respected community members) is presented throughout the ICA document. These recommendations address many of the concerns that have been raised by Stó:lō people. Recommendations made by the ICA also reflect the intent of the *S'ólh Téméxw* Use Plan (v10).

However, within the NEB Process, the TMEP schedule did not leave time for Kinder Morgan to consider any input from TTML and the communities they represent in the Facilities Application filed in December 2013. The 'Dialogue/Meeting Record', representing only a set of pre-application, information sharing-based interactions, presented in the Facility Application poorly reflects the range of issues that have been brought forward by TTML to Kinder Morgan.

The TMEP crosses and has potential to affect lands designated by the *S'ólh Téméxw* Use Plan as Zones for Cultural Protection and Education and Zones for Environmental Protection and Agriculture. It will now be up to the NEB to consider the recommendations put forward by the ICA and determine if they should be enforced as conditions of the CPCN if the TMEP is approved. Kinder Morgan may also voluntarily commit to these recommendations to improve TMEP design and mitigation planning, as well as, long term relations with Stó:lō communities.

Unfortunately, Stó:lō people do not have a lot of faith in the NEB process or that Kinder Morgan will accept the recommendations of the ICA and other Stó:lō submissions. If this were the case, and the TMEP is approved without deep, meaningful consultation and accommodation by the Federal government of Stó:lō land management goals, rights and title, and Stó:lō decision-making, the TMEP will negatively impact the values associated with Stó:lō governance. Specifically: leadership↓↓↓, connectedness/continuity↓↓↓, self determination↓↓↓, pride↓↓↓, respect↓↓↓, purpose↓↓↓, responsibility, self reliance↓↓↓, tradition↓↓↓ and self representation↓↓↓.

While the TMEP is only one of many proposed developments in *S'ólh Téméxw* that is not seeking permission through Stó:lō governance structures, the size and the public awareness around the TMEP, has resulted in a high-profile reminder that Stó:lō people have little control over developments in *S'ólh Téméxw*. The high profile nature of TMEP exacerbates its negative impact on Stó:lō people.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, and the geographic extent will be regional. If approved, the effect is considered long-term since it will last throughout the lifetime of the TMEP and after project closure; as long as the RW and facility footprint is visible on the landscape; therefore the importance is ranked as high. The likelihood will be highly likely. The combination of an importance ranking of high and a likelihood of highly likely results in a significance ranking of highly significant.

Impact rating Summary

For the purposes of the ICA, the Governance assessment considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with governance. These areas of concern were:

- ◆ A feeling of dis-empowerment or dislocation regarding control over *S'ólh Téméxw*
- ◆ TMEP in-compatibility with Stó:lō land use goals

Based on the impact rating criteria described earlier in Section 2.2.3 cultural effects resulting from the TMEP have an additive effect.

Positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the Table 12-3 below.

H+H = H
H+M = H
H+P = M
M+M = M
M+P = M
P+P = P

TABLE 12-3: GOVERNANCE PRE-MITIGATION IMPACT RATING SUMMARY

Value	A feeling of dis-empowerment or dislocation regarding control over <i>S'ólh Téméxw</i>	TMEP in-compatibility with Stó:lō land use goals	Final Rating
Respect↓↓↓	H	H	H
Pride↓↓↓	H	H	H
Tradition ↓↓↓	H	H	H
Leadership ↓↓↓	H	H	H
Connectedness/continuity ↓↓↓	H	H	H

Value	A feeling of dis-empowerment or dislocation regarding control over <i>S'ólh</i> <i>Téméxw</i>	TMEP in-compatibility with Stó:lō land use goals	Final Rating
Self Determination ↓↓↓	H	H	H
Self Representation ↓↓↓	H	H	H
Self Reliance ↓↓	H	H	H
Responsibility ↓	H	H	H
Purpose ↓↓	H	H	H

H = HIGHLY SIGNIFICANT EFFECT

M = MODERATELY SIGNIFICANT EFFECT

P = POSITIVE EFFECT

The figure 12-3 below illustrates the TMEP impact, prior to mitigation measures.

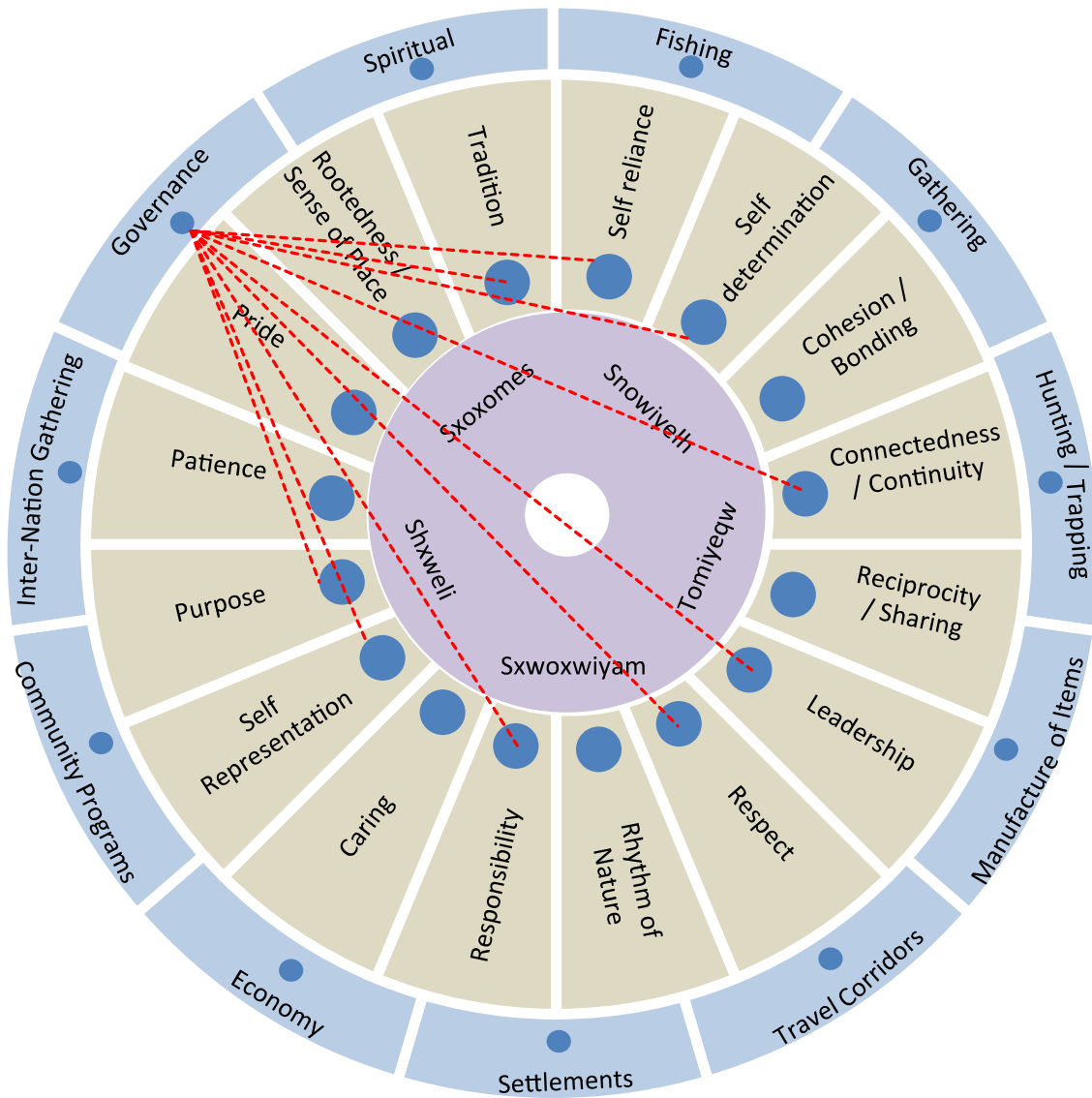


FIGURE 12-3: POTENTIAL TMEP IMPACTS TO GOVERNANCE VALUES

12.7 Recommendations for Governance

As described in the previous section the TMEP is predicted to have a highly significant impact on Stó:lō governance activities.

The following mitigations are recommended by Stó:lō people as a way to minimize the negative impacts on governance as a result of the TMEP.

TMEP should implement the mitigation measures reference throughout the ICA, this would help address many of the concerns Stó:lō people have about TMEP and would illustrate that Kinder Morgan understands and recognizes the importance of Stó:lō people having a voice in developments taking place in *S'ólh Téméxw*.

TMEP should collaborate with Stó:lō representatives on how to engage in a process of dialogue that recognizes and respects Stó:lō governance structures. This would include:

- ◆ Respect for Stó:lō *snoweyelh* and policies included, for example, in the Stó:lō Heritage Policy and *S'ólh Téméxw* Use Plan;
- ◆ Recognize and respect Stó:lō worldview and potential impacts by addressing cumulative impacts and negative outstanding, historical effects and infringements of existing pipeline and right-of-way;
- ◆ Recognition, respect and participation in traditional decision making protocols and practices;
- ◆ Capacity support for the re-establishment of these protocols and practices within Stó:lō communities

12.8 Residual Impact Assessment for Governance

As described in the previous section the TMEP is predicted to have highly significant impacts on governance activities. The mitigation recommendation section outlines actions that TMEP can take to minimize the negative impacts on Stó:lō people.

Assuming the TMEP agrees to, and implements the mitigation measures listed in the previous section, the following would be the residual impact of the TMEP on governance activities.

Because the TMEP conflicts with some of the goals set out in the *S'ólh Téméxw* Use Plan, if approved, TMEP development and operation will have an adverse impact. The societal impact will be at the tribal level. If TMEP engages in meaningful engagement with Stó:lō representatives to consider all the recommendations set out in the ICA the effect would be reduced and thus the magnitude of TMEP effects to governance is considered low. The geographic extent will be regional and the duration will be medium term, therefore the importance is ranked as medium. The likelihood will be likely. The combination of an importance ranking of low and a likelihood of highly likely results in a significance ranking of moderately significant.

TABLE 12-4: GOVERNANCE RESIDUAL IMPACT RATING SUMMARY

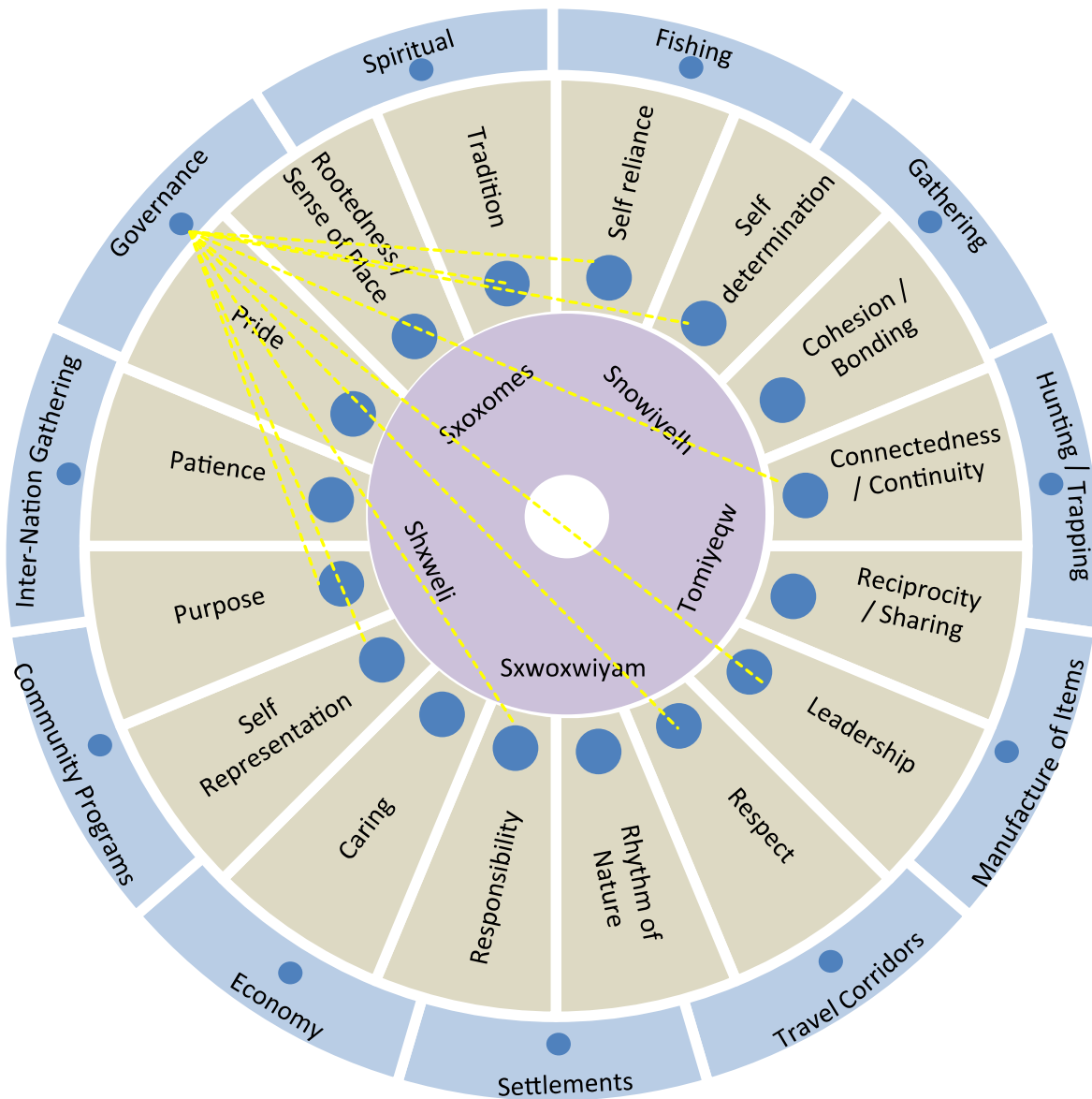
Value	A feeling of dis-empowerment or dislocation regarding control over <i>S'ólh Téméxw</i>	TMEP in-compatibility with Stó:lō land use goals	Final Rating
Respect	M	M	M
Pride	M	M	M
Tradition ↓↓	M	M	M
Leadership ↓	M	M	M
Connectedness/ continuity	M	M	M
Self Determination ↓↓	M	M	M
Self Representation	M	M	M
Self Reliance ↓	M	M	M
Responsibility	M	M	M
Purpose	M	M	M

H = HIGHLY SIGNIFICANT EFFECT

M = MODERATELY SIGNIFICANT EFFECT

P = POSITIVE EFFECT

The figure 12-4 illustrates the residual TMEP impact, if Stó:lō recommendations are incorporated into the TMEP design and CPCN conditions of approval.



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

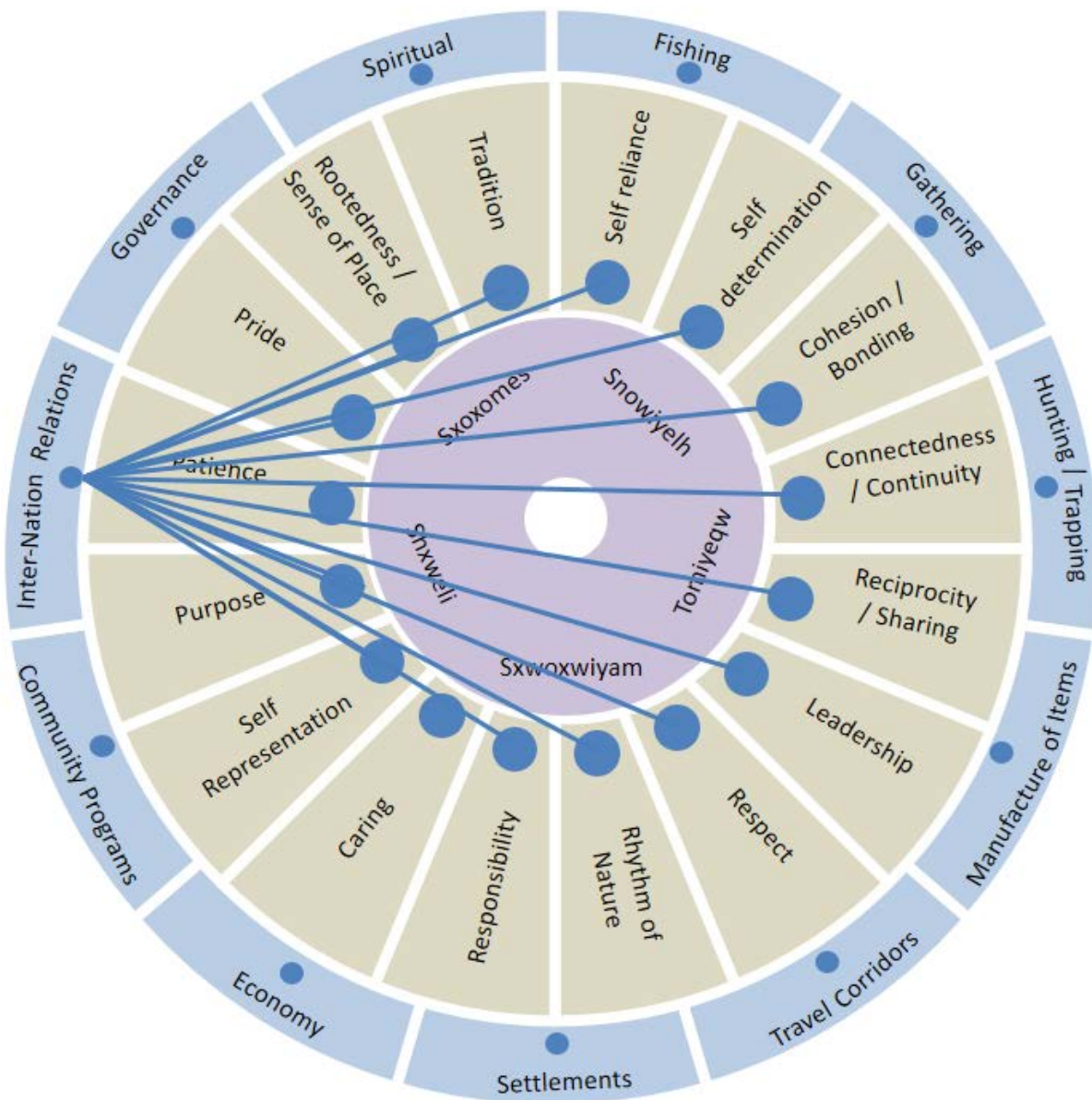
FIGURE 12-4: POTENTIAL RESIDUAL TMEP IMPACTS TO GOVERNANCE VALUES

13.0 INTER-NATION GATHERINGS

Inter-nation gatherings have always been the primary way in which relations were/are maintained. Gatherings are an opportunity to rekindle kinship ties, promote wealth distribution, create and renew political alliances, share songs and stories, and participate in games. They are also used to carry out some key ceremonies, such as namings and weddings.

13.1 Historic Context – Inter-nation Gatherings

Historically, inter-nation gatherings facilitated trading goods such as fish, berries, wild meat, sweaters, blankets, and baskets. It was the kinship and friendship ties that created such gatherings, ties that were throughout the *S'ólh Téméxw*, Coast Salish territory, and beyond. Within the realm of *Xwélmexw* (recognized or known people) there were many types of exchange such as *Síya:ya* (close friends and family) *stl'e'áleq* (reciprocal gift exchange or potlatch exchange), or market exchange (changing through distance). Beyond the geo-spatial or social-spatial distance of *Xwélmexw* was 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 the specific relationships between one another which suggests the complexity of relations and possibilities for exchange (Carlson, 1996, 2001; Miller, 1999). Inter-nation gatherings also provided security against invasion, intrusion, or war with other nations outside of *S'ólh Téméxw* and beyond Coast Salish Territory. While there was warfare and competition among *Stó:lō* and Coast Salish tribes, there was always a sense of protection of extended family and kinship ties, and close friends therein. As figure 13-1 illustrates inter-nation gatherings were linked to a number of cultural values.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 13-1: CULTURAL VALUES ASSOCIATED WITH INTER-NATION GATHERINGS

13.2 Contemporary Context - Inter-nation Gatherings

During early TMEP information sharing sessions, it became clear that many Stó:lō people were concerned with how their actions and participation in the TMEP would affect other First Nations within S'ólh Téméxw and beyond; including coastal First Nations, the interior groups and Aboriginal communities in NE Alberta. Stó:lō people feel that the TMEP has potential to affect their relationships with other First Nations and the success and spirit of different inter-nation gatherings.

Stó:lō people continue to attend different types of gatherings to celebrate cultural traditions among Stó:lō tribal groups and other Coast Salish communities. In addition to these gatherings, Stó:lō leadership, and other community representatives attend meetings and larger gatherings to give strength to other First Nation initiatives aimed at environmental protection, Aboriginal rights and title, governance, and social activism.

The importance of inter-nation gatherings is captured by the comments below:

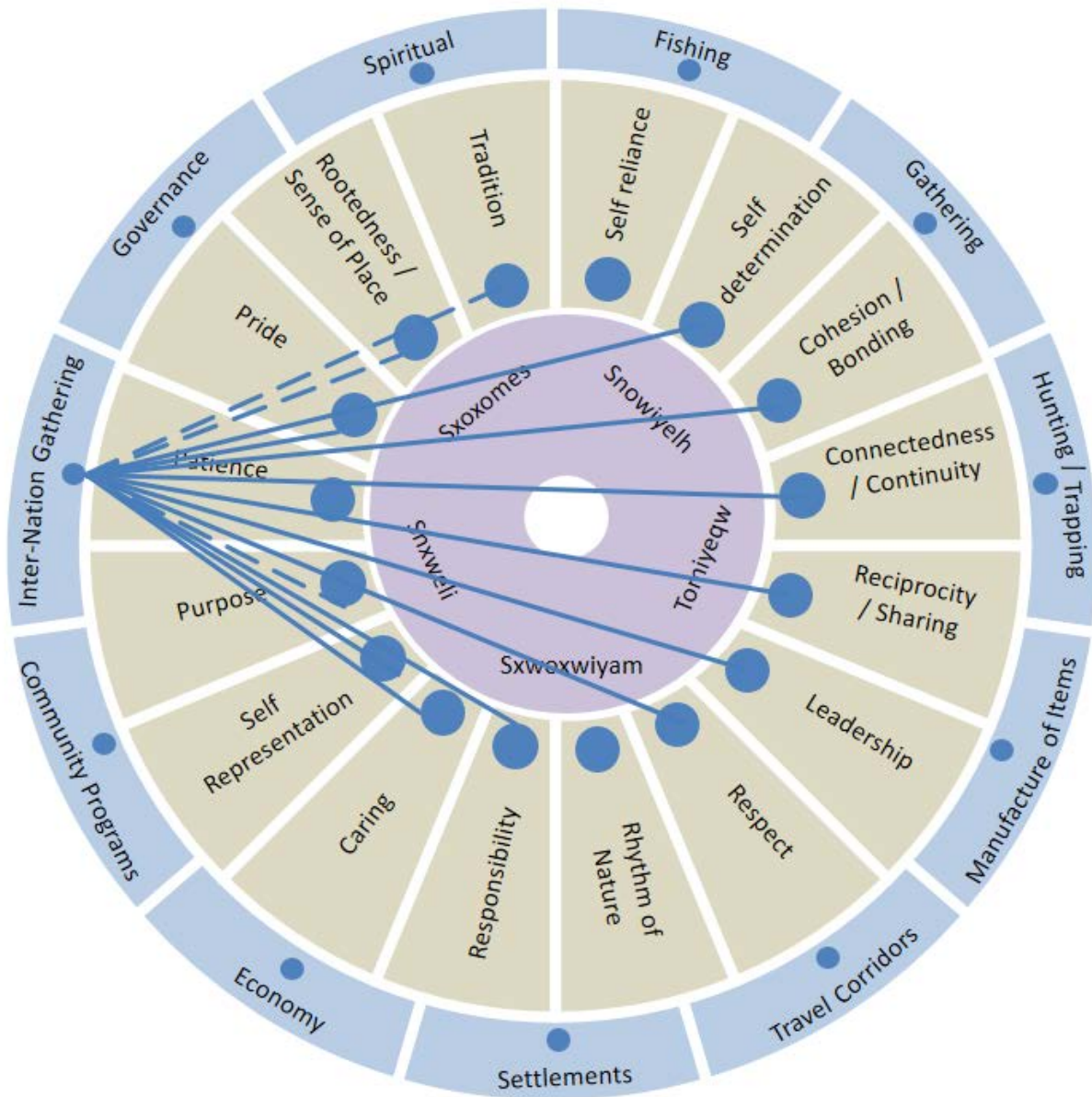
“Gatherings and ceremonies are crucial; they teach us about who we are, how to interact with each other and nature. It has a positive impact on our values: sharing, honoring, discipline, humbleness, love, respect, roles, responsibilities, language and so much more.” Lex hal ten Mark Point, Stó:lō elder and educator (Skowkale)

“Long before colonization of Canada, First Nations people from across Canada and North America held games. History dictates that many modernized sports were derived from traditional First Nations games. These games taught our First Nations children many qualities that would help them through their journey into adulthood, such as: honesty, courage, respect, and gratitude” (Seabird Island Band, 2013).

For the purposes of the ICA, the contemporary discussion of inter-nation gatherings is divided into two topics:

- ◆ inter-nation gatherings with a ceremonial or cultural focus which typically occur once per year, and
- ◆ inter-nation gatherings more focused on political and governance issues.

Each topic is discussed separately below, as the potential impact of the TMEP and the associated mitigations, are different for the topics and therefore better presented independently. While this separation makes sense for the ICA, there are at times overlap in the two types of gatherings. The overall status of the contemporary role that inter-nation gatherings have on Stó:lō society is visually presented in the Figure 13-2.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 13-2: CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY INTER-NATION GATHERINGS

13.3 Indicators for the ICA - Inter-nation Gatherings

During information sharing sessions carried out by TTML, through the Qwō:qwel process and the ICA, feedback indicated that there were two key areas of concern with respect to the effect the TMEP could have on Inter-Nation Gatherings. These are summarized in Table 13-1.

TABLE 13-1: INTER-NATION GATHERING CONCERNS AND TMEP STRESSORS

Inter-nation Gathering Concern	TMEP Stressor *
1. Gatherings with a cultural or spiritual focus <ul style="list-style-type: none"> a. TMEP activities will deter First Nation members from attending gatherings b. The presence of TMEP construction workforce will inflate cost of accommodation and travel 	<ul style="list-style-type: none"> ◆ Introduction of non-aboriginal work force ◆ Traffic, noise
2. Gatherings with a governance or political focus <ul style="list-style-type: none"> a. TMEP may be a divisive or negative influence on inter-nation relations 	<ul style="list-style-type: none"> ◆ TMEP approval process

*STRESSOR: EXTERNAL FORCES THAT AFFECT THE WAY KEY CULTURAL ACTIVITIES ARE CARRIED OUT.

For the purposes of the ICA, the Inter-Nation Gatherings assessment will consider potential TMEP impacts to each of these areas of concern and discuss how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with Inter-Nation Gatherings. In order to measure potential effects to cultural value linkages as a result of the TMEP, a series of cultural inputs and outputs were identified.

Inputs are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. For example, by considering the question “What do you need (i.e. what skills, knowledge, cultural tools) to have a successful Inter-Nation Gathering?”, the ICA was able to develop a list of cultural characteristics and cultural tools associated with this activity. How these characteristics/cultural tools (or “inputs”) are applied to an activity like Inter-Nation Gatherings is affected by values. By considering the question: “What do you get out of attending/hosting a successful Inter-Nation Gathering?”, another list of cultural outputs was developed. Outputs affect

values. Once inputs/outputs were identified, indicators were selected to help track changes in cultural inputs/outputs over time. Changes in these inputs and outputs are used as indicators of the cultural values themselves. The *Indicator report prepared for the ICA of the TransMountain Project* (TTML, SRRMC, HEG 2013) (Appendix A), provides more background on how contemporary cultural inputs and outputs affect linkages to cultural values.

Table 13-2 lists the indicators that will be considered to measure potential impacts to the cultural inputs and outputs associated with Inter-nation gatherings. The state of contemporary value linkages shown in Figure 13-2 are also listed below in Table 13-2; downward arrows represent linkages that have been weakened over time due to various outside stressors and as such are vulnerable to additional developmental pressures.

TABLE 13-2: INTER-NATION GATHERINGS INPUTS AND OUTPUTS AND INDICATORS

Contemporary Value Linkage for Inter-nation Gatherings	Input/output	Indicator
<u>Ceremonial and Cultural Focus</u> Respect Pride Tradition↓ Leadership Rootedness/Senses of Place↓ Purpose ↓ Responsibility Cohesion/bonding Connectedness/continuity Reciprocity /sharing Self Representation↓ Caring	<ul style="list-style-type: none"> ◆ Knowledge of Place ◆ Intergenerational transfer of knowledge ◆ Traditional skills ◆ Traditional property rights ◆ Spirituality ◆ Language ◆ Health ◆ Traditional protocols 	<ul style="list-style-type: none"> ◆ List of inter-nation gatherings and number of people attending ◆ Statistics on availability of hotel accommodation during ceremonies ◆ Traffic volumes on roads in S'ólh Téméxw

Contemporary Value Linkage for Inter-nation Gatherings	Input/output	Indicator
<u>Governance and Political Focus</u> Respect Pride Tradition↓ Leadership Rootedness/Senses of Place↓ Purpose ↓ Responsibility Cohesion/bonding Connectedness/continuity Self Determination Reciprocity /sharing Self Reliance↓ Self Representation↓ Caring	<ul style="list-style-type: none"> ◆ Intergenerational transfer of knowledge ◆ Traditional skills ◆ Traditional property rights ◆ Customary laws of inheritance ◆ Spirituality ◆ Language ◆ Health ◆ Traditional protocols 	<ul style="list-style-type: none"> ◆ List of Stó:lō people and other First Nations associated with the TMEP, within <i>S'ólh Téméxw</i> ◆ List of Stó:lō organizations and others involved in the TMEP ◆ Agreements and alliances between Stó:lō people and other nations ◆ Level of internal knowledge of different Nations' positions/strategies. (i.e. how aware is Stó:lō leadership of what's going on in other communities with regards TMEP, etc?)

13.4 Baseline - Inter-nation Gatherings

As was stated earlier, the ICA is being carried out on behalf of eleven Stó:lō communities, however, a total of thirty (30) Stó:lō communities share *S'ólh Téméxw*. In addition to these communities, a number of other First Nations have an interest in lands that fall within this same geographic area.

Inter-nation Gatherings with a Ceremonial or Cultural Focus

Inter-nation gatherings with a ceremonial or cultural focus typically involve Stó:lō people and other First Nations people within *S'ólh Téméxw*, as well as members from outside of *S'ólh Téméxw*. For example, the Cultus Lake War Canoe Races had people travelling from the Lower Mainland, Vancouver Island and Washington State (Amal, 2011, pers.com Cheam Member Feb 2014). The structure of the ceremonies varies depending on the purpose and whether or not they are formal. The ceremonies typically include, a master of ceremonies, drumming, singing, prayers and a meal is usually provided.

The largest gatherings, in terms of attendance, are the Cultus Lake War Canoe Races and Seabird Island gatherings. Different gatherings serve different purposes, and a list of some of the key gatherings is included below:

- ◆ Seabird Island Annual Festival
 - ◆ The location is: 2895 Chowat Rd, Agassiz, BC
 - ◆ Since 1969, the annual event has occurred during the summertime
 - ◆ Activities Include: slahal open games, war canoe races, local First Nations arts and crafts exhibits, cedar weaving (make and take), Sasquatch pictograph riverboat tour, sweat lodge ceremonies, children's activities, dancing, music, sports tournaments, cultural exhibits, trophies and prizes.
 - ◆ The attendance is roughly 10,000 people
- ◆ Cultus Lake Water Sports and War Canoe Races
 - ◆ The location is: 4165 Columbia Valley Hwy, Cultus Lake, BC
 - ◆ Since 1957, the annual event has occurred during the summertime
 - ◆ Activities Include: Canoe racing, First Nations Arts and Crafts, drumming, singing, traditional food vendors and warrior and princess pageant.
 - ◆ The attendance is roughly 7,000 – 8,000 people
- ◆ Stó:lō Nation Children's Festival
 - ◆ The location is: #7-7201 Vedder Road, Chilliwack, BC
 - ◆ The annual event occurs during the summertime
 - ◆ Activities Include: Storytelling, singing, dancing, drumming, prayers, children activities and games

- ◆ The attendance is roughly 600-700
- ◆ Winter Dance/Bighouse (Long House)
 - ◆ The location: Squiala (1), Skowkale (1), Shxwhà:y (1), Yakweakwioose (1), Soowahlie (2), Cheam (1), Sumas (1), and Chehalis (3)
 - ◆ The annual event occurs during the wintertime
 - ◆ Activities Include: Storytelling, singing, dancing, drumming, traditional food and prayers
 - ◆ The attendance is roughly 300-5,000 throughout the wintertime.
- ◆ Elders' Gathering
 - ◆ The location is in the Sumas Longhouse
 - ◆ The annual event occurs during the Fall
 - ◆ Activities Include: Singing, dancing, drumming, traditional food and prayers
 - ◆ The attendance is roughly 5,000 people
- ◆ First Salmon Ceremony
 - ◆ The location is in the Sumas Longhouse
 - ◆ The annual event occurs during the Fall
 - ◆ Activities Include: First Salmon Ceremony happens throughout S'ólh Téméxw when fishing season opens. The attendance varies. Typical activities include sharing the first salmon and sharing the salmon story
 - ◆ The attendance is roughly 5,000 people

Attendance at these types of gatherings has been decreasing in the past 10 years as the cost of travel to, and accommodation at, the gatherings has increased to the point where many Stó:lō people cannot afford to come. The exception to this is winter dance activities. Over the last number of years activity at all the Bighouses has been increasing.

"The attendance [at war canoe races] has been decreasing because there is no funding. People don't have enough money to travel." Cheam member

"The attendance has decreased because of travel expenses. One way on the ferry cost \$300 plus gas, vehicle, housing and food. The races goes on in communities across the Coast Salish... We want to preserve our culture. It teaches responsibility, discipline and how to live an alternate way of life other than drugs and alcohol, how

*to live as family, how to keep your commitment to a group of people.” Lex hal ten
Mark Point, Stó:lō elder and educator (Skowkale)*

Inter-nation Gatherings with a Political or Governance Focus

Inter-nation gatherings among Stó:lō people, other Coast Salish communities, and national and international Indigenous peoples, have become the conduits for cooperation in relation to environmental protection, rights and title, governance, and social activism. Gatherings create possibilities for unified action on decisions and regulations that directly affect them, their children, their grandchildren, and the earth. One of the leading examples of contemporary gatherings is the Coast Salish Gatherings and conferences. With over 55 Canadian First Nations and 23 US Tribes living along the Salish Sea, there was a need for First Nations involvement and engagement in studies, conservation and protection planning, and environmental regulation. In response to the Georgia Basin Action Plan, in 2008, Coast Salish communities gathered for a multi-year water quality study that brought youth, elders, EPA and Environment Canada representatives, and Coast Salish together, as skippers and pullers of over 110 canoes, known as the *Paddle to Quw’utsun*.

Inter-nation gatherings are based on a contemporary form of security and protection that is related to the assertion, protection and renewal of inherent rights, and responsibilities. Aboriginal rights have been recognized in Section 35 of the Constitutional Act of Canada, since 1982. A key component of security, identified by First Nations groups, is knowledge, which is shared through such gatherings. The inter-nation gatherings strive to show support and respect, one Nation for another, and all Nations together, whether there is a common response to a proposed development, such as the TMEP, or not. The goals are more about coming together to understand the larger issues (i.e. cumulative effects, rights and title, self-governance, etc), different perspectives, and a return to a collective identity and understanding.

Some inter-nation gatherings are being held in response to proposed industrial developments. For example, the TMEP has created an impetus for First Nations, such as Tsleil-Waututh and Squamish to work together to create the *Declaration to Protect the Salish Sea*. In addition, these nations have joined with others, such as the Yinka Dene and another 160 First Nations, to create and sign the *Save the Fraser Declaration*. This declaration promotes the banning of heavy oil pipelines and tankers from BC. All Nation (meaning BC First Nations potentially affected by the TMEP) summits, ceremonies, and meetings have occurred to discuss the impacts, benefits, and decision-making processes around TMEP and have included aspects of information sharing, supporting other Nations in legal actions, and creating dialogue around rights and title, governance, and the perspectives of First Nations along the line.

13.5 Impact Assessment – Inter-nation Gatherings

As described in the baseline section, inter-nation gatherings are one of the primary ways that relations are maintained. In contemporary times, Stó:lō people have begun to re-establish some inter-nation gatherings in relation to both cultural/spiritual and political/governance focuses.

Some of challenges related to these gatherings are described in the baseline section.

Potential TMEP Effects to Inter-nation Gatherings with a Ceremonial or Cultural Focus

The anticipated hub communities within S'ólh Téméxw are Hope, Chilliwack and Abbotsford which will be a base for construction spreads. The three hubs will house 550 workers on average and a high of 865 non-local workers during the construction phase. These workers are expected to stay in local hotels and motels during their rotations. These workers will also add to local traffic volumes as they travel from their hotels to the Right of Way; as will the trucks and service vehicles that will bring materials and products to the TMEP construction sites. The Socio-Economic Assessment (TMEP Facilities Application, Volume 5B, Part 3), outlines the residual traffic impacts from the TMEP and indicates that, for communities with limited access routes, the impact of the TMEP on traffic, particularly in summer months will be *"more than a nuisance or inconvenience to residents, travelers and other road users."* Portions of S'ólh Téméxw have limited access route options and therefore could be expected to have the same impacts.

The presence of the construction workers will have a negative impact on Stó:lō people's cultural and spiritual focused inter-nation gatherings and therefore a negative impact on the inter-nation gatherings in general. Stó:lō people currently find it expensive and difficult to find hotel accommodations during major events, and the addition of construction workers staying in local hotels will make this difficult situation even worse.

The additional traffic, noise, dust and activity during construction will also have a negative impact on Stó:lō people's cultural and spiritual focused inter-nation gatherings and therefore a negative impact on the inter-nation gatherings in general. Stó:lō people indicate that the current volume of traffic is enough to make them not travel to cultural or spiritual events, and the addition of TMEP related traffic will make this situation worse. Any TMEP induced effect that reduces opportunities for Stó:lō people to engage in cultural events has the potential to further stress values related to self representation, pride, tradition, cohesion and bonding, reciprocity/sharing, connectedness and continuity and rootedness/sense of place.

During construction the direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be short-term. Given these factors, the importance of the effect is ranked as medium. The likelihood will be highly likely. The combination of an importance ranking of medium and a likelihood of highly likely results in a significance ranking of highly significant.

During operations the TMEP will hire 50 new employees, although it is not certain as to which communities these employees would live in. It is likely that these workers would be hired from the existing labour pool in British Columbia and continue to reside in their existing communities.

The operation of the TMEP is not expected to have an effect on Stó:lō inter-nation gatherings.

Potential TMEP Effects to Inter-nation Gatherings with a Political or Governance Focus

The construction and in particular the pre-construction (application process) is expected to have a positive and negative effect on inter-nation gatherings with a political or governance focus. The positive effect is a result of the TMEP creating a reason to gather more frequently, as some First

Nations along the TMEP RW want to communicate with each other. This can have a positive impact on values related to self representation, leadership, pride and purpose.

However the negative effect results from the fact that although the fundamental position of the First Nations against the TMEP is similar, differing economic and social aspects of each nation, result in First Nations having to take differing positions on the TMEP and creating a level of tension amongst the Nations. This can have a negative effect on values such as cohesion and bonding.

Because people travel from many different communities to attend political events held in the ICA study area, the societal impact is considered multi-tribal. The magnitude of the potential effect is considered medium, the geographic extent will be local and the duration will be short-term. As a result the importance of this effect is ranked as medium. The likelihood will be likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of moderately significant.

If the TMEP is approved regardless of First Nations opinions, the TMEP impact on political inter-nation gatherings during operations would be adverse. This scenario may reinforce the opinion that some Stó:lō people have now, that no matter what First Nations do, they have no ability to control development on their traditional lands. As a result of this feeling of disempowerment and lack of influence over development activities on their lands, there is potential for less interest, energy and resources channeled towards having political inter-nation gatherings. This has negative effects on values including self determination, self representation, respect, and pride.

During operation the direction of the impact will be adverse. The societal impact will be at the multi-tribal level, the magnitude will be low, the geographic extent will be multi-regional and the duration will be medium-term, therefore the importance is ranked as medium. The likelihood will be likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of moderately significant.

13.6 Impact Summary Inter-Nation Gatherings

For the purposes of the ICA, the Intern-Nation Gatherings assessment considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with Intern-nation Gatherings. The areas of concern are:

- ◆ TMEP activities will deter First Nation members from attending gatherings
- ◆ The presence of TMEP construction workforce will inflate cost of accommodation and travel
- ◆ TMEP may be a divisive or negative influence on inter-nation relations

H+H = H

H+M = H

H+P = M

M+M = M

M+P = M

P+P = P

Based on the impact rating criteria described earlier in Section 2.2.3 cultural effects resulting from the TMEP have an additive effect.

Positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the table below.

TABLE 13- 3: INTER-NATION GATHERINGS PRE-MITIGATION IMPACT RATING SUMMARY

Value	TMEP activities will deter First Nation members from attending gatherings The presence of TMEP construction workforce will inflate cost of accommodation and travel	TMEP may encourage more political inter-nation relations	TMEP may be a divisive or negative influence on inter-nation relations	Final Rating
Respect	M	-	M	M
Pride	M	P	M	M
Tradition ↓	M	-	-	M
Leadership		P	M	M
Connectedness/continuity	M	-	M	M
Self Determination	M	-	-	M
Cohesion and Bonding	M	P	M	M
Self Representation ↓	M	P	M	M
Reciprocity/sharing	M	P	M	M
Caring	M		M	M
Responsibility ↓	-	P	M	M
Purpose ↓	M	P		M

The figure 13-3 illustrates the TMEP impact, prior to mitigation measures.

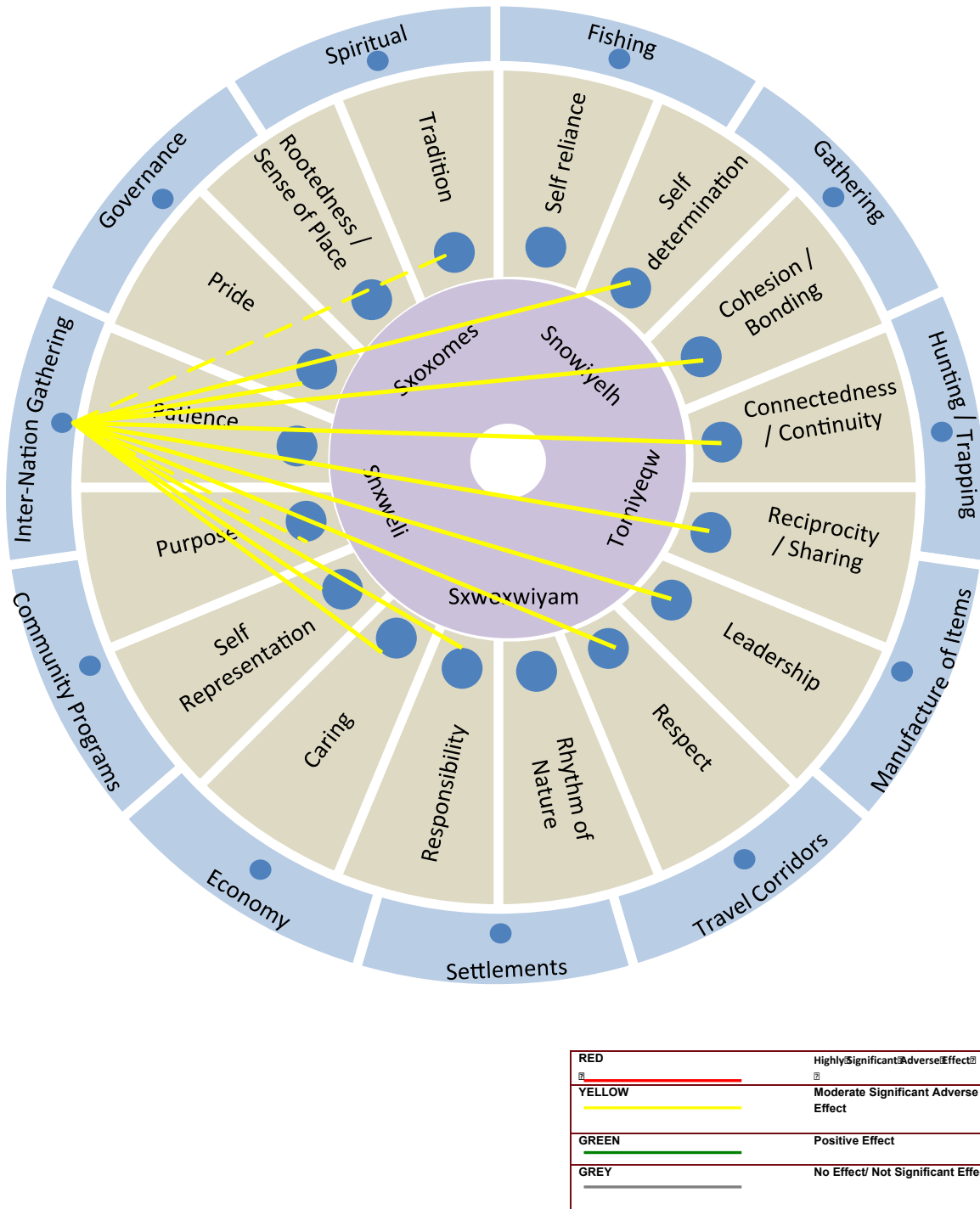


FIGURE 13-3: POTENTIAL TMEP IMPACTS TO VALUES ASSOCIATED WITH INTER NATION GATHERINGS

13.7 Recommendations – Inter-nation Gatherings

As described in the previous section the TMEP is predicted to have moderately significant impacts on inter-nation gatherings, both positive and adverse with the combined impact being ranked as moderately adverse.

The following mitigation and enhancement measures are recommended by Stó:lō representative as a way to minimize or avoid adverse impacts as a result of the TMEP.

As part of the Work Accommodation Strategy (TMP Application. Vol. 6B, App C, Section 8.4.4) listed in the TMEP Application, the TMEP will:

- ◆ Work with Stó:lō representatives to identify the dates of key cultural and spiritual inter-nation gatherings, and schedule construction activities around those dates. For example, the TMEP will plan the construction schedule so construction workers are not using hotels in the Chilliwack area during the days that the Cultus Lake Water Sports and War Canoe Races are held. This would reduce the pressure on hotels during this inter-nation gathering.
- ◆ The TMEP's construction schedule would be finalized 6 months prior to commencing construction and shared with Stó:lō representatives at that time. This would allow Stó:lō representatives enough time to share this information with their people prior to the inter-nation gatherings.

As part of the Access Control Management Plan (TMEP Facility Application. Volume 6B, Section 8.4.4, Appendix C) listed in the TMEP Application, the TMEP will:

- ◆ Provide bussing or some other form of worker transport management for construction workers, between the accommodation locations and the construction site.
- ◆ Schedule the trucking of heavy loads to avoid peak traffic times and heavily-used intersections
- ◆ Prohibit construction parking/staging areas along key access routes to Big houses, boat launches, trailheads near bathing sites. Refer to Sections 9.0: Travel Corridors and Section 7.0: Spiritual Areas for more specific recommendations related to these features.

13.8 Residual Impact Assessment for Inter-nation Gatherings

Mitigation actions related to potential impacts to inter-nation gatherings focus on the TMEP integrating construction schedules and materials delivery around these gatherings. This will allow inter-nation gatherings with a ceremonial or cultural focus go on with fewer hindrances and TMEPs effects will be decrease.

As described in the previous section the TMEP is predicted to have adverse moderately significant impacts, with the combined impact being ranked as moderately adverse. The mitigation recommendation section outlines actions that the TMEP can take to minimize or avoid the adverse impacts.

Assuming the TMEP agrees to, and implements, the mitigation measures listed in the previous section, the following would be the residual impact of the TMEP on inter-nation gatherings.

Inter-nation Gatherings with a Ceremonial or Cultural Focus

Provided the TMEP adhere to recommendations laid out in Section 13.7, the TMEP should not affect inter nation gatherings with a ceremonial or a cultural focus. The operation of the TMEP is not expected to have an effect on Stó:lō cultural or spiritual gatherings.

Inter-nation Gatherings with a Political or Governance Focus

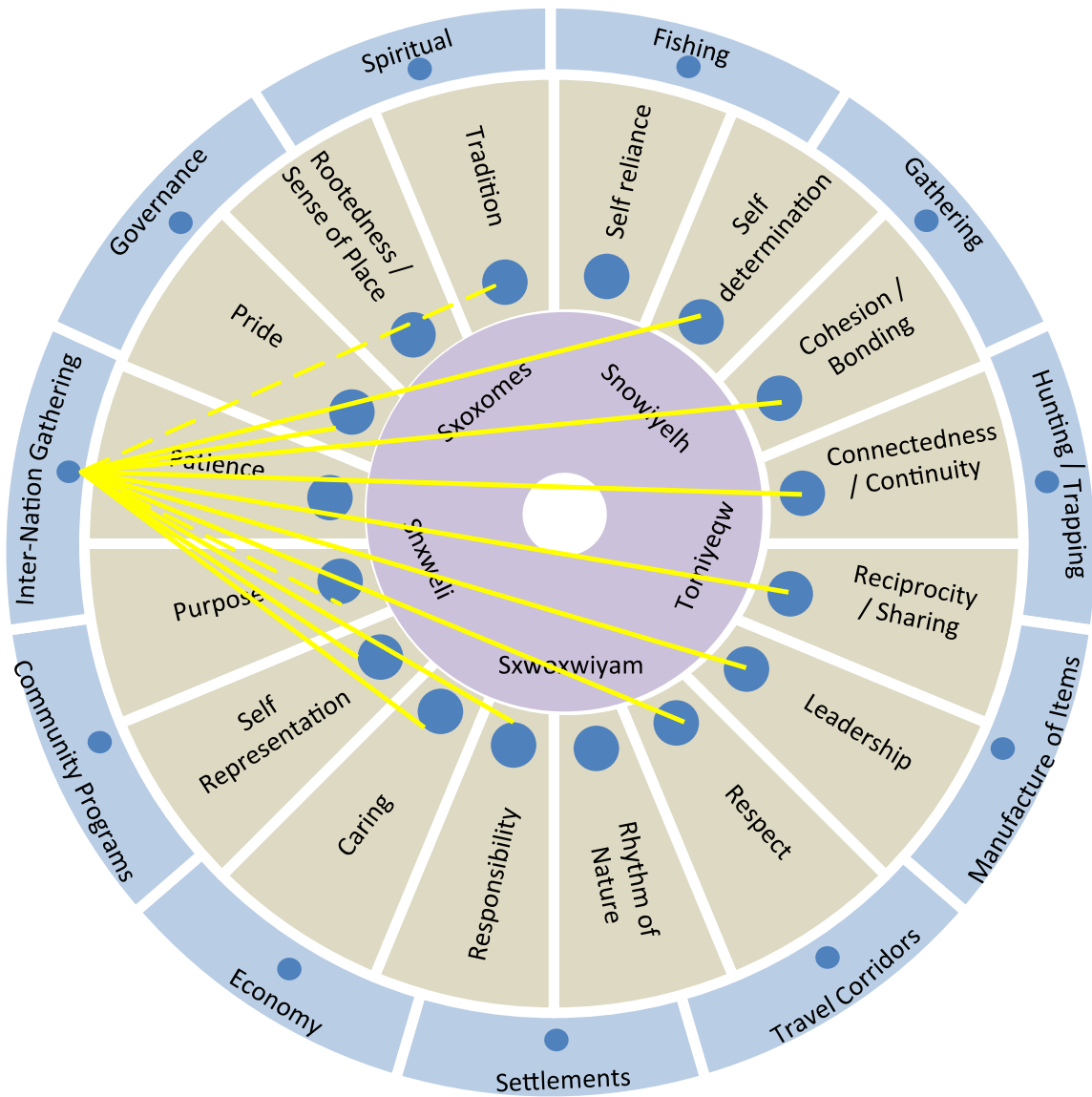
Based on the range of positions held regarding the proposed TMEP and the passion that surrounds protecting water and the salmon from a possible accident or large scale spill, it is expected in some cases, inter-nation gatherings will increase during the regulatory review and construction phase of the TMEP. The societal impact will be at the multi-tribal level, the magnitude will be medium, the geographic extent will be multi-regional and the duration will be short-term, therefore the importance is ranked as medium. The likelihood will be likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of moderately significant.

TABLE 13- 4: INTER-NATION GATHERINGS RESIDUAL IMPACT RATING SUMMARY

Value	TMEP activities will deter First Nation members from attending gatherings The presence of TMEP construction workforce will inflate cost of accommodation and travel	TMEP may encourage more political inter-nation relations during application and construction phase	TMEP may be a divisive or negative influence on inter-nation relations	Final Rating
Respect	-	-	M	M
Pride	-	P	M	M
Tradition ↓	-	-	-	
Leadership		P	M	M
Connectedness/continuity	-	P	M	M
Self Determination	-	P	M	M
Cohesion and Bonding	-	P	M	M

Value	TMEP activities will deter First Nation members from attending gatherings The presence of TMEP construction workforce will inflate cost of accommodation and travel	TMEP may encourage more political inter-nation relations during application and construction phase	TMEP may be a divisive or negative influence on inter-nation relations	Final Rating
Self Representation↓	-	P	M	M
Reciprocity/sharing	-	P	M	M
Caring	-		M	M
Responsibility↓	-	P	M	M
Purpose↓	-	P	M	M

The figure 13-4 illustrates potential residual effects to Inter-Nation Gathering.



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 13-4: RESIDUAL IMPACTS TO INTER NATION GATHERINGS

14.0 ECONOMY

The connection between Stó:lō people and their culture is supported by economic activities. In the historical context this is related to a system of trade and exchange that predates European contact. In the contemporary context a large portion of the Stó:lō people participate in the wage economy, and although the participation in the wage economy is an adaptation by the Stó:lō people to European settlers, it still supports a few of the values important to their culture.

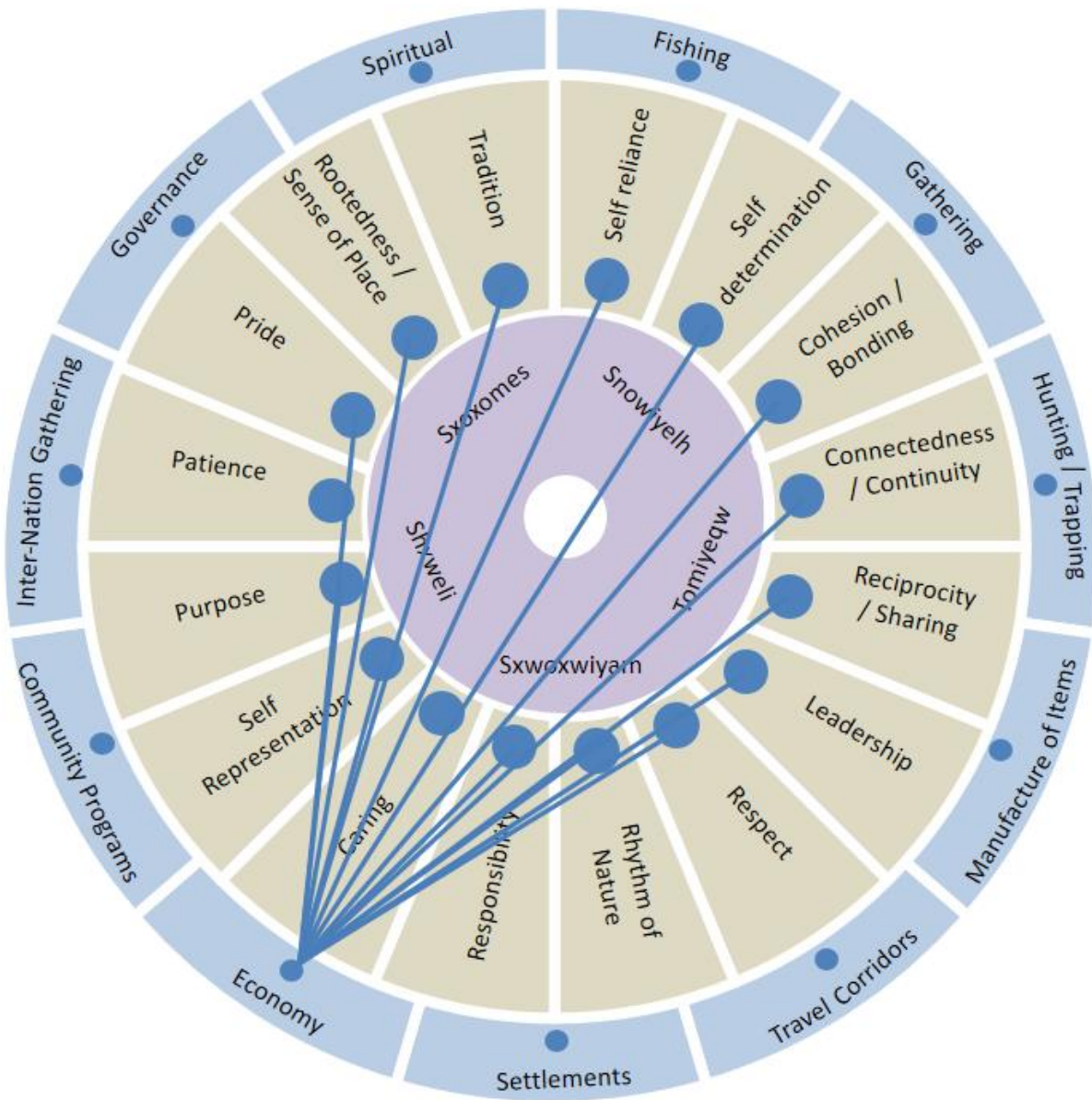
14.1 Historical role of Economic Activities

The pre-contact Stó:lō economy was diverse and founded on wide-spread networks of interaction, trade and exchange (Carlson 1996; Lepofsky et al 2009; Schaepe 2009).

The historical Stó:lō economy was linked to social, political, spiritual and ceremonial activities, and both tangible and intangible cultural properties including 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. These cultural properties and activities formed the framework for the historical Stó:lō economy.

Status, wealth and prestige were related to ownership of intangible names, songs, and private knowledge, as well as material possessions such as canoes, weapons, slaves, clothing / blankets, and tools. *Stl'e'áleq* ('Potlatch') gatherings were a central feature of the Stó:lō people interconnected politically, spiritually and for material economy.

As figure 14-1 illustrates the operation of the Stó:lō economy was linked to a number of cultural values.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 14-1: CULTURAL VALUES ASSOCIATED WITH HISTORIC ECONOMIC ACTIVITIES

14.2 Contemporary role of Economic activities

With increasing regulation of Stó:lō society and the resulting alienation from traditional practices of fishing, hunting, logging, and the banning of the potlatch, Stó:lō people were forced to shift from their traditional forms of economy to a European style wage based economy.

From the late 1820's onward, with the arrival of the Hudson's Bay Company in Fort Langley, Stó:lō engaged in trade and commerce as new opportunities became available. Over the past 150 years, Stó:lō people's interaction with the wage economy increased, initially driven by the arrival of pioneer gold miners. Once the gold rush had passed, Stó:lō people worked as potato farmers and farm labourers, worked in fish canneries, worked on rail construction for the CPR, and as pilots and deck hands on steam ships (Carlson, 1996). Stó:lō people started working in commercialized fishing, supply trading, and labouring on farms. By the late 1870's Stó:lō men, women and children were engaged in hop-picking throughout S'ólh Téméxw (Carlson, 1996). With road development, farming, canning (fish and otherwise), railway development, and development in general continuing throughout S'ólh Téméxw, Stó:lō people are integrated into the new economic system, to the point that every Stó:lō family had at least one member who was participating in the wage economy (Lutz, 1988).

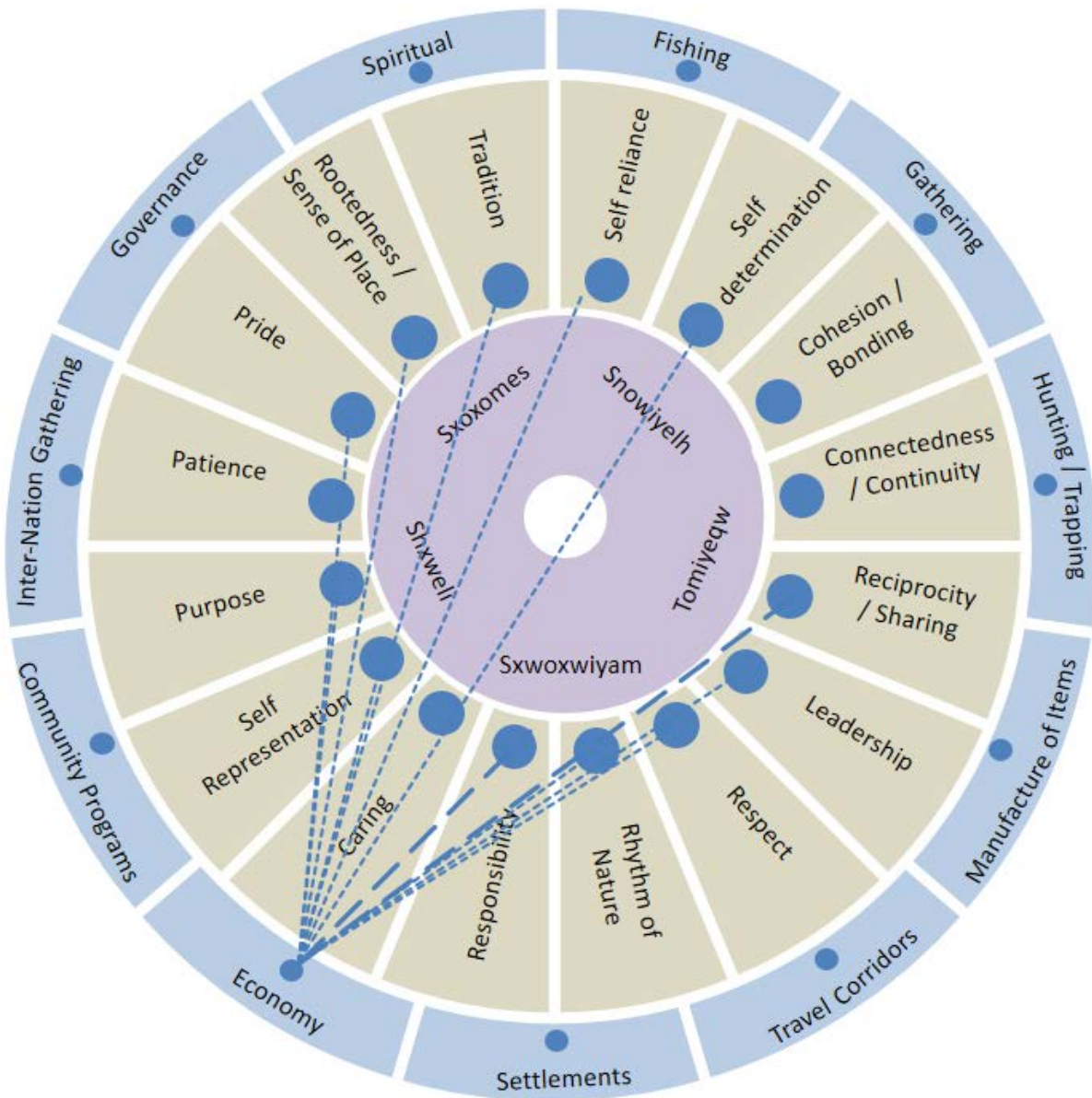
As a result of the arrival of European culture and the necessity for Stó:lō people to participate in the wage economy, its people were separated more from their culture and their resistance to Europeans and their culture was greatly reduced. Along with colonization came a greater demand for land, a greater desire for fertile land, and finally the reserve system. With the introduction of the Indian Act, residential schools, and an increased population of immigrants, competition for employment became fierce between Immigrants and Stó:lō people. Restrictions on fisheries, hunting, and licensing practices, and new legislation that created two-tiered pay scales between European labourers and Aboriginal and Chinese labourers was established (Carlson, 1996). Fishing, hunting, gathering was greatly altered placing them into political and economic spheres of the European settlers (O'Neil, 1996). Economic strife and disparity among Stó:lō people are commonplace in the contemporary world – described as a diasporic relationship with Canada, within the Canadian economy.

The impact of economic activities on Stó:lō culture is captured by the comments below:

"As part of being Stó:lō, your taught that family comes first. Fishing, you pack up and leave during certain seasons and now you can't just pack up and leave because of full time jobs." – Shxwhà:y member.

"I see the poverty we live, we live in a culture of poverty. Our people struggle to meet their daily needs. They don't even know if they have enough money to make ends meet. How do we break the cycle of poverty with our people?" – Skowkale member

The overall status of the contemporary role that economy has for Stó:lō society is visually presented in Figure 14-2, and shows that linkages have weakened over time for key values.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 14-2: CONTEMPORARY VALUES RELATED TO ECONOMIC ACTIVITY

14.3 Indicators for the ICA related to Economic activities

The ability of Stó:lō people to practice their traditional economic activities has significantly been affected by the arrival of settlers and their establishment of a wage based economy. These stressors have affected the contemporary value linkages in the Stó:lō cultural model as described in the previous section. Within the context of the ICA, the TMEP will add to or exacerbate the influence of the wage economy and its affect on Stó:lō people's culture. During information sharing sessions for the ICA, Stó:lō people indicated that they recognize the move away from their historical economy and the inevitable need to move into the wage economy, but they identified concerns about the challenges they face when trying to participate in the wage economy.

It is important to highlight that the contemporary economy has the ability to support some core cultural values, such as pride and self reliance, however the transition from the historical economic activities to the contemporary wage economy is an on-going change. As a result, additional focus needs to be given (by industry and Stó:lō people) to ensuring improvements to or strengthening of the linkages between economic activity and Stó:lō values.

TABLE 14-1: ECONOMIC CONCERNS AND TMEP STRESSORS

Economic Concern	TMEP Stressor
Challenges faced by Stó:lō people when they try to participate in the wage economy	Introduction of non-aboriginal work force
◆ lack of childcare	Jobs/contracts (minimum requirements, scheduling, etc.)
◆ lack of transportation	Effects to agricultural land base, cultural landscape features, place names
◆ lack of education	Potential spill or leak
Challenges that Stó:lō companies may face associated with TMEP	
◆ Could TMEP change land uses that affect Stó:lō people's agriculture, forestry, fishing or tourism businesses?	
◆ Will Stó:lō peoples business be awarded some of the work associated with the TMEP?	
Adverse effects to existing economic activities	

***Stressor:** external forces that affect the way key cultural activities are carried out.

For the purpose of the ICA, the economic activities assessment will consider potential TMEP impacts on each of these areas of concern and discuss how TMEP stressors (elements causing project effects) could affect Stó:lō values associated with economic activities.

In order to measure potential effects to economic value linkages as a result of the TMEP, a series of cultural inputs and outputs were identified.

Inputs are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. For example, by considering the question “What do you need (i.e. what skills, knowledge, cultural tools) to successfully carry out Economic Activities”; the ICA was able to develop a list of cultural characteristics and cultural tools associated with various economic activities. How these characteristics/cultural tools (or “inputs”) are applied to an activity such as fishing is affected by values. By considering the question: “What do you get from successfully carrying out Economic Activities”, another list of cultural outputs was developed. Outputs affect values. Once inputs/outputs were identified, indicators were selected to help track changes in cultural inputs/outputs over time. Changes in these inputs and outputs are used as indicators of the cultural values themselves. The *Indicator report prepared for the ICA of the TransMountain Project* (TTML, SRRMC, HEG 2013) (Appendix A) provides more background on how contemporary cultural inputs and outputs affect linkages to cultural values.

Table 14-2 lists the indicators that will be considered to measure potential impacts to the cultural inputs and outputs associated with economic activities. The state of contemporary value linkages shown in Figure 14-2 are also listed below in Table 14-2; downward arrows represent linkages that have been weakened over time due to various outside stressors and as such are vulnerable to additional developmental pressures. As described in Section 2.2, a single down arrow indicates it is still a common activity, but there are fewer places to carry out activity or fewer people carry out the activity, while a double arrow indicates only very few people carry out activity or very few places to carry out this activity severely diminishing.

TABLE 14-2: ECONOMIC INPUTS AND OUTPUTS AND INDICATORS

Contemporary Value linkage for Economic Activities	Input/output	Indicator of Economic activity
Respect↓↓↓	◆ Skills/education	◆ Types of crops grown on agricultural land crossed by the existing RW
Pride↓↓↓	◆ Access to land/natural resources	◆ Types of animals grazed in S'ólh Téméxw
Tradition↓↓↓	◆ Ability to take care of each other	◆ Types of recreational activities in S'ólh Téméxw
Leadership↓↓↓	◆ Wealth	
Rootedness/ Sense of place↓↓↓		

Contemporary Value linkage for Economic Activities	Input/output	Indicator of Economic activity
Purpose↓↓↓ Responsibility↓ Rhythm of Nature↓↓↓ Self Determination ↓↓↓ Reciprocity/sharing↓ Self Reliance↓↓↓ Self Representation↓↓↓	<ul style="list-style-type: none"> ◆ Status ◆ Recognition ◆ Defined role in community 	<ul style="list-style-type: none"> ◆ Production activities from Stó:lō people's forested lands ◆ Waterways supporting Stó:lō fisheries crossed by the TMEP ◆ proximity of existing RW to commercial/residential developments ◆ Employment levels for Stó:lō people ◆ What types of jobs do Stó:lō people have ◆ What plans or vision does Stó:lō people have for employment, training and business development? ◆ What level of skills or training would help Stó:lō people get a job or get more advanced jobs? ◆ What barriers to Stó:lō people have to getting the training they need (e.g. child care, transportation to training schools, etc.) ◆ What is the best way for TMEP to notify Stó:lō businesses about upcoming business opportunities? ◆ What is the best way for TMEP to notify Stó:lō people about employment opportunities and skills required for specific jobs?

14.4 Economic Activities Baseline

Stó:lō participation in the wage and capital economy is a relatively new activity, beginning with the arrival of European immigrants into the lower mainland. Stó:lō people work in the wage economy and have come to associate some cultural values with the wage economy. Participation in the economy is reflected in the employment and income sections for individual communities listed below.

In addition to employment and income generated by working for others, a number of Stó:lō communities operate businesses. Many of the Stó:lō businesses provide services to the natural resource extraction sector, including fishing, logging, and agriculture.

Agriculture

The Fraser Valley has some of the most productive agricultural land in Canada. The Fraser Valley agricultural sector is dominated by dairy, poultry, and greenhouse/nursery operations. Dairy accounts for nearly half of all farm revenues in the area, with Chilliwack being home to the largest farm in Canada. In addition, vegetable and berry production, floriculture, specialty livestock and crops, and agri-tourism play a growing and crucial role in the region's economy (Chilliwack Economic Partners, 2010).

Although data is not available at the Fraser Valley Regional District (FVRD) level, out of the 67% reserved for agriculture (ALR) in Chilliwack, 8 percent is First Nations' Reserves and land used for roads and highways (Don Cameron Associates, 2010). With more than 2,700 farms and considerable supporting industry in the area, the agricultural industry is estimated to support more than 10,700 jobs in the Fraser Valley Statistics Canada (2012). Farmland in S'ólh Téméxw is very productive, for example if you average the direct sales of farm produce (farm gate receipts) over the number of hectares farmed in the FVRD, the average direct farm sales are about \$15,000 per year, per hectare (State of the ALR 2010, Smartgrow BC).

There are First Nations' reserves containing land lying within the ALR within the Fraser Valley. Currently, much of the land managed by First Nations and located in the Agricultural Land Reserve is being farmed, sometimes under leasing arrangements with area farmers who are also farming land not managed by First Nations (Don Cameron Associates, 2010). For example, the Grass Reserve IR 15 has a five-year lease out to a local farmer.

Commercial Fishing

The First Nations communities eligible to fish in the lower Fraser area for economic purposes are Aitchelitz, Chawathil, Cheam, Katzie, Kwantlen, Kwaw kwaw Apilt, Peters, Seabird Island, Shxw'ōwhámél, Shxwhà:y, Skawahlook, Skowkale, Skwah, Soowahlie, Squiala, Sumas, Tzeachten Yakweakwioose and Yale First Nation (Fisheries and Oceans Canada, 2013).

Commercial fishery takes place in the fall and winter season for Fraser chum and pink salmon using beach seine nets. Beach Seine crews need to be identified to Department of Fisheries and Oceans (DFO) in order to receive a license to participate in the commercial fishery. The DFO determine the times and designate specific areas First Nations crews can beach seine.

Although there is a fractured relationship between DFO and First Nations communities, DFO acknowledges First Nations people are under-represented in the commercial fishing industry. DFO is working to increase First Nations participation in integrated commercial fisheries.

According to Fisheries and Oceans Canada (2013), the amount of salmon caught by First Nations communities in the lower Fraser area fluctuates from year to year and by species. As described in the Fisheries section of the ICA, Stó:lō people's salmon catch ranges from about 1.3 million to 8.1 million pounds per year. Given such a wide range in catch volume and the fluctuations in prices each year, the estimated value of the commercial fishery for Stó:lō people can range from about \$5 million to \$30 million. In relation to the overall commercial fishery Stó:lō people often accounts for 20% to 40% of the First Nations catch, but less than 1% of the overall commercial fishing along the Fraser river, in the lower mainland.

The amount of pink salmon caught by First Nations communities in the lower Fraser area fluctuates from as low as 0 in 2012 to as high as 1099481 in 2013. As of November 2013, this accounts for 90% of Fraser pink salmon caught by First Nations communities commercial fishing from the Port Mann Bridge to Saw Mill Creek and 10% out of all commercial fishing along the Fraser river, in the lower mainland (Fisheries and Oceans Canada, 2013).

Forestry Businesses

Ts'elxwéyeqw Forestry Limited Partnership (TFLP) provides forest management services and oversight for all aspects of forestry projects occurring in the Chilliwack River Valley. This includes oversight of contractors and subcontractors; right of way work; road building; vegetation management; engineering consulting; biological assessments; environmental monitoring; archaeological and cultural assessment; potentially contract site inspection services and GIS. The annual allowable cut in the Chilliwack district is about 1.2 million cubic meters, with TFLP controlling approximately 250,000 cubic meters of that total. To estimate the value of forestry to the Stó:lō people, it is estimated that the average price per cubic meter of forest products is \$75 (Source), therefore forestry directly contributes about \$18.75 million per year to Stó:lō people's revenues.

TFLP have identified a number of unique challenges they face regarding their forestry activities. One challenge is that TFLP utilizes forestry contractors to harvest their timber and pays market rates to these contractors. Recent experience with the BC Hydro ILM Project resulted in BC Hydro out-bidding TFLP for the services of these forestry contractors. While this was a windfall for the forestry contractors, it resulted in Stó:lō people not being able to harvest the amount of timber they had planned. This distortion to the cost of contractors in the market place a negative financial impact on Stó:lō people.

Another challenge that TFLP and other Stó:lō based companies face is that it takes time for them to train Stó:lō people to have the skills that are required for large scale construction project, such as BC Hydro ILM or the TMEP. Stó:lō companies need 12 – 24 months advance notice in order to get Stó:lō people training and ready for skilled positions. Stó:lō companies, such as TFLP, are trying to pursue contracts that allow Stó:lō people to work in trades or skilled position as opposed to just filling the un-skilled positions on major construction projects.

Stó:lō Tours

Place names tours are offered by the Stó:lō Research and Resource Management Centre and Stó:lō Xwexwilmexw Treaty Association. The Stó:lō tours are narrated by *Sxwoxwiyam* and *Sqwelqwel*, the legends and the true stories, that give shape to the Stó:lō culture, history and people. There are upriver, downriver, bad rock and Chilliwack River Valley tours cover areas throughout the Fraser Valley; from Sumas to Yale. Business opportunities for Stó:lō people in tourism in addition to the cultural tours include river rafting, cultural fisheries tours and carving displays.

Stó:lō Businesses

Stó:lō people have hundreds of band or member owned companies, many of which would offer services needed by a pipeline construction project. A complete listing of the companies and the services they provide is not currently available, although the development of such a listing is included in the mitigations in Section 14.6.

As described above, many of the Stó:lō businesses rely on either land or water based resources. Business owners and managers consistently expressed their concern about the effect of pipeline spill or leak on their business. A description of some of the details around the water based concerns can be found in the Fisheries Section 5. Some of the land based concerns revolve around the fear that the B.C. Government is unprepared to handle a spill. The B.C. Government has also expressed a concern about their ability to respond to spills or leaks. In July 2012, the B.C. government announced five conditions which must be met before it would consider the approval of heavy oil pipeline projects in the province. The third condition requires that B.C. develop "world-leading practices for land oil spill prevention, response and recovery systems" and hold companies like Enbridge and Kinder Morgan accountable to them. In BC, oil spills on land are the province's responsibility. The BC MoE recently put out a report, related to their ability to respond to oil spills from pipelines like the existing TransMountain pipeline. Given small staff (16 people), difficult terrain in some areas and inadequate operating budgets, the MoE feel they would not necessarily be able to respond to any sizable event. (Land Based Spill Preparedness and Response in BC, Min of Environment, http://www.env.gov.bc.ca/epd/codes/spr_eep/pdf/spill_preparedness_response_ip.pdf). One of the key areas of concern in *S'ólh Téméxw* is the steep descent between the Coquihalla summit down to Hope where access is difficult, pressure in the pipeline will be high and the distance between pipeline isolation valves may be great. Stó:lō are concerned that potential release volumes (including drain down volumes) from a rupture or leak will end up in the Coquihalla River and eventually the Fraser.

14.4.1 Employment and Income

Employment and income data is discussed as it reflects how the economic status of Stó:lō people is different from the non-aboriginal society surrounding their communities. The numbers, to some extent, reiterate the fact that Stó:lō people do not share in the benefits of economic development to the same degree as the non-aboriginal population, for example, the employment rate for each community should be considered in comparison to the employment rate for the general population in the Fraser Valley Region, where about 92% of the people in the labour pool have a job. As a rough estimate, for all the Stó:lō communities with data below, only 75% of people in the labour pool have

a job. Therefore the unemployment rate for Stó:lō people is about 3 times higher than the non-aboriginal population. Some comments collected during the information sharing process are included, to highlight the concerns of Stó:lō people.

Given the small size of some of the Stó:lō communities in S'ólh Téméxw, statistics Canada has suppressed some data to protect the confidentiality of individual respondents.

Aitchelitz

Data is suppressed by Statistics Canada for this community.

Skowkale (combine Skowkale #10 and #11)

Of the 638 members who live in this community (combine reserve #10 and #11) about 50% are working or looking for work (labour force), of these members, about 90% are employed. For the members who are employed, the most common occupations are sales and service related.

“Employers are not flexible with diverse lifestyles. Many of our people are inundated with many responsibilities which can be affected by typical work hours.”

Participation in the wage economy results in financial earnings, for the members of the Skowkale First Nation the median income for individuals who worked either part time or full time is about \$16,803. The income for Skowkale members is mostly made up of earnings from employment, however about 25% of their income comes from government transfers or other sources. Combined median household income was \$40,000 in 2005. Approximately 40% of households in Skowkale are single parent and single person households, whose median income is about \$25,000.

“I see the poverty we live, we live in a culture of poverty. Our people struggle to meet their daily needs. They don't even know if they have enough money to make ends meet. How do we break the cycle of poverty with our people?”

Shxwhà:y

Of the 89 members who live in this community about 67% are working or looking for work (labour force), of these 67% who are looking for work about three-quarters (75%) are employed. For the members who are employed, the most common occupations are in the trade, transport, and equipment operator sectors.

“The challenges members face when seeking out employment are a lack of funds, time, motivation, transportation, childcare and a need for basic upgrading”

Income data was suppressed by Statistics Canada for this community.

“The community members working do not have trouble making ends meet but the ones on Social Assistance, it's not enough”

Squiala

Of the 114 members who live in this community about 50% are working or looking for work (labour force), of the 50% who are looking for work, about three-quarters (75%) are actually employed. For

the members who are employed, the most common occupations are in the trade, transport and equipment operator sectors.

“Some of the challenges community members face when seeking employment are the lack of motivation and finding childcare”

Income data was suppressed by Statistics Canada for this community.

Yakweakwioose

Employment and income data was suppressed by Statistics Canada for this community.

Kwaw-kwaw-Apilt

Of the 35 members who live in this community only about 22% are working or looking for work (labour force), of the 22% who are looking for work about 87% of them are employed. For the members who are employed, the most common occupations are sales and service related.

Participation in the wage economy results in financial earnings, for the members of the Kwaw Kwaw Apilt First Nation the median income for individuals who worked either part time or full time is about \$13,300. About 20% of the income for members earned from employment, with the remaining 80% coming from government transfers or other sources. Combined median household income was \$35,800 in 2005. Approximately 35% of households in Kwaw Kwaw Apilt are single parent and single person households, whose median income is about \$18,500.

Skwah

Employment and income data was suppressed by Statistics Canada for this community.

Sumas

Employment and income data was suppressed by Statistics Canada for this community.

“There is not transportation, a lack of child care and training opportunities. The cost of living is poor and community members’ income is not enough to make ends meet.” Sumas member

Cheam

Of the 420 members who live in this community about 60% are working or looking for work (labour force), of the 60% who are looking for work about 85% of them have found employment. For the members who are employed, the most common occupations are sales and service related.

“Our location is remote so transportation to work becomes an issue. Some of the things people were raised to do and they are good at it may not be transferrable to an occupation. To understand the land and resources are a priority until the job suffers. Cheam member “

Income data was suppressed by Statistics Canada for this community.

14.5 Impact Assessment – Economic Activities

Stó:lō people indicated that they are concerned that the TMEP will contribute to the erosion of historical economic activities and at the same time will not result in any economic benefits for the First Nation or its members. Stó:lō people are skeptical that the TMEP will make any substantive efforts to address the challenges that Stó:lō people and companies face when trying to integrate in the wage economy. They are also concerned that the TMEP will limit existing economic activities being pursued (agriculture, fishing, forestry, cultural tourism, service companies). The ICA will consider each of these concerns separately.

New Economic Benefit of the TMEP for Stó:lō People

The assessment of economic impacts differs from the Employment and Economy section of the TMEP Facility Application. The TMEP Facility Application indicates that “Significant” economic benefits will result from the construction of the TMEP. It is common for the Employment and Economy Section of an Application to indicate that significant economic benefits will flow to the study area from their project, however the facility applications typically does not discuss the unique challenges facing First Nation workers and companies within the broader context of society. It is probable that the TMEP will result in economic benefit flowing to *S’ólh Téméxw*, however historically, First Nations, such as Stó:lō people have not fully shared in the benefits of increased economic activity in their territory.

The anticipated hub communities within *S’ólh Téméxw* are Hope, Chilliwack and Abbotsford, which will be a base for construction spreads. The three hubs will house 550 workers on average and a high of 865 non-local workers during the construction phase. There would be approximately 8,200 person-months of construction work based out of these three hubs.

Assuming the status quo, in terms of employment, the direct construction employment from the TMEP is estimated to generate the equivalent of about 6 months of work for one Stó:lō person. This equates to about 0.07% of the direct construction employment available in the three hubs flowing to Stó:lō people.

The TMEP estimates they will hire only 10% of their workers from the workforce near the three hubs. This implies that 90% of the jobs in *S’ólh Téméxw* will be filled by non-local workers. Stó:lō people will be left to compete for only 10% of the jobs with the local non-aboriginal labour force. The following table outlines the number of potential jobs and then estimates how many might actually be filled by Stó:lō people.

As described above Stó:lō people’s unemployment rates are higher than the general public, and therefore this estimate, may be overstating the benefits that could flow to Stó:lō people.

TABLE 14-3: DIRECT CONSTRUCTION WORKFORCE ESTIMATES FOR Stó:lō PEOPLE

Construction Hub			
	Hope	Chilliwack	Abbotsford
Average workers hired per month by TMEP	250	149	150
% of workers hired from local labour force (number of workers)	10% (25)	10% (15)	10% (15)
Stó:lō people's percentage of labour force	0.08%	0.08%	0.08%
Estimate number of jobs that would go to Stó:lō people	0.20	0.12	0.12
Total hours of direct employment flowing to Stó:lō people during construction (assuming 10-on/4-off, 10 hour days)	650 hrs	270 hrs	410 hrs

Indirect economic benefits may also flow to Stó:lō people through contracting opportunities during construction; as well induced economic activity will also be generated by the TMEP. The TMEP Facility Application estimate that that British Columbia as a whole may see about 9,500 indirect and induced jobs as a result of the TMEP, but how much may actually flow through to the Fraser Valley region and then within that how much to Stó:lō companies and workers is not known. However it is likely to be a very small fraction of the indirect and induced benefits that the Stó:lō people would receive.

During construction the TMEP is expected to hire 50 workers for the entire province of British Columbia. Given the discussion above, it seems unlikely that any of those jobs would flow to Stó:lō people.

The TMEP will pay taxes, including linear infrastructure taxes to local municipalities for the actual footprint of the TMEP. As the line may cross some reserve lands of Stó:lō people, the TMEP may also generate some additional tax income for some individual in S'ólh Téméxw.

The direction of the impact will be positive. The societal impact will be at the individual level, the magnitude will be low, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as low. The likelihood will be unlikely. The combination of an importance ranking of low and a likelihood of unlikely results in a significance ranking of Not significant.

Effects to Existing Stó:lō Economic Activities

During information sharing sessions carried out through the Qwō:qwel Process and the ICA it became clear that Stó:lō people were worried the TMEP would adversely affect a number of existing economic activities.

Agriculture

Stó:lō people are concerned the RW will restrict useable land on Reserves; in particular conventional cropping activity. They are also concerned about the repercussions a spill or leak would have on agricultural activities.

The ongoing access required for operations of the TMEP to determine sufficient depth of cover and pipeline integrity has affected and will continue to affect Stó:lō agricultural land by limiting farming activity.

Stó:lō communities gain income through leasing land out to farmers and by farming. A spill or leak would have detrimental effects to community incomes and food supply.

Fishing

Potential TMEP effects to the Stó:lō Fishery (FSC) is described in 5.0. However, a number of Stó:lō communities also participate in the commercial salmon fishery. The TMEP has the potential to affect the commercial fishery in a number ways. The primary concern, however, is that oil spills or leaks would result in short to long-term fisheries closures thus affecting their ability to harvest.

Commercial fishery takes place in the fall and winter season for Fraser chum and pink salmon using beach seine nets. Much of the beach seining activity occurs in sections of the Fraser River (between Hope and Wahleach) that is paralleled by the proposed alignment of the TMEP. Within this stretch, the proposed TMEP will cross a number of salmon-bearing tributaries to the Fraser (see table 5-4 in the Fishing section). Stó:lō fisherman are concerned that a spill or leak in any of these waterways could have downstream effects on commercial beach seining. This is because this activity is associated with many of the islands and side channels in the Fraser River and this is where debris, coarse sediments and potentially – dilbit will tend to build up. It is not clear to what extent a Stó:lō fisherman would have to prove financial losses (harvest, boats, equipment) in order to get compensated in the event of an oil spill.

Forestry

The TMEP will cross 2 forest development units managed by Ts'elxwéyeqw Forestry Limited Partnership: Pilalt 1 and Pilalt 2. The TMEP includes Right of Way clearing during construction of 45 m and a final operating Right of Way of 18 m. For the Pilalt 1 and Pilalt 2 FDU, the clearing of the Right of Way could result in a loss to Stó:lō people of several million dollars.

Kinder Morgan has had some discussions related to contracting opportunities for RW maintenance on the existing pipeline corridor however no formal agreements are in place.

Stó:lō Tours

The TMEP has the potential to effect more than ten cultural landscape features. Clearing and construction activities will occur within 100m of over 135 place names (CHOA 2014). The incremental impact of projects like the TMEP threaten the integrity of these sacred places and the programs/businesses that have been in place to preserve them.

Stó:lō Businesses

As Section 14-4 suggests, there are a number of Stó:lō businesses that have services relevant to construction of a pipeline. However, Stó:lō people are not confident that economic benefits will flow through to their companies.

The overall sentiment is that the TMEP will have virtually no short-term benefit to Stó:lō people during construction and the TMEP presents a risk to existing Stó:lō economic activities once it enters the operations phase.

Not only is the TMEP viewed by Stó:lō people as not having any real economic benefits, it actually will interfere with many of the existing business operations. As described in the baseline section, the recent experience was that big construction projects, such as BC Hydro ILM, push up prices for contractors who Stó:lō business hire for forestry, agriculture, etc. The end result has been an actual drop in business opportunities for Stó:lō businesses as the big projects create a distortion in the local contractor market, and drive up input prices to the point where it exceeds Stó:lō people's ability to compete.

The TMEP also has the potential to create adverse economic impacts through a spill or leak. As described in the baseline, The Ministry of Environment has indicated they would probably not be able to respond effectively to a sizable event. Without an effectively response to a spill or leak the potential economic damage would be significant for Stó:lō businesses.

Anything that limits Stó:lō people's ability to benefit from the wage economy has the ability to affect the cultural values that Stó:lō people have come to associate with economic activity, which are self reliance, leadership, pride, respect, purpose, responsibility, self representation and the ability to take care of each other (sharing, reciprocity).

Potential effects to existing economic activities would be adverse. The extent could be felt at the tribal level since all the communities have some existing economic activities which could be affected. The geographic extent is regional, magnitude is expected to be high, the duration: short-term, and so is given an importance ranking of high. Based on the current TMEP design, this effect is considered likely and so this is considered a highly significant impact.

14.6 Impact Summary

For the purposes of the ICA, the Economic Activities assessment considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with these activities. These areas of concern were:

- ◆ There will be limited economic benefit to Stó:lō people due to specific challenges faced by Stó:lō people when they try to participate in the wage economy
- ◆ Challenges that Stó:lō companies may face associated with TMEP
- ◆ Potential adverse effects to existing economic activities

Based on the impact rating criteria described earlier in Section 2.2.3 cultural effects resulting from the TMEP have an additive effect.

Positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the table 14-4 below.

TABLE 14-4: PRE-MITIGATION SIGNIFICANCE RATINGS FOR ECONOMIC ACTIVITIES

Value	Economic Benefits from TMEP for Stó:lō people	Effect on Existing Business	Final Rating
Self Reliance↓↓↓	NS	H	H
Respect↓↓↓	NS	H	H
Pride↓↓↓	NS	H	H
Tradition ↓↓↓	-	-	-
Leadership ↓↓↓	-	H	H
Rootedness/sense of place ↓↓↓	-	-	-
Purpose ↓↓↓	NS	H	H
Responsibility ↓	NS	H	H
Rhythm of Nature↓↓↓	-	-	-
Self Determination ↓↓↓	NS	H	H
Self Representation↓↓↓	NS	H	H
Reciprocity/Sharing↓↓↓	-	H	H

H = HIGHLY SIGNIFICANT EFFECT
M = MODERATELY SIGNIFICANT EFFECT

NS = NOT SIGNIFICANT
P = POSITIVE EFFECT

Figure 14-3 illustrates the TMEP impact to economic activities, prior to mitigation measures.

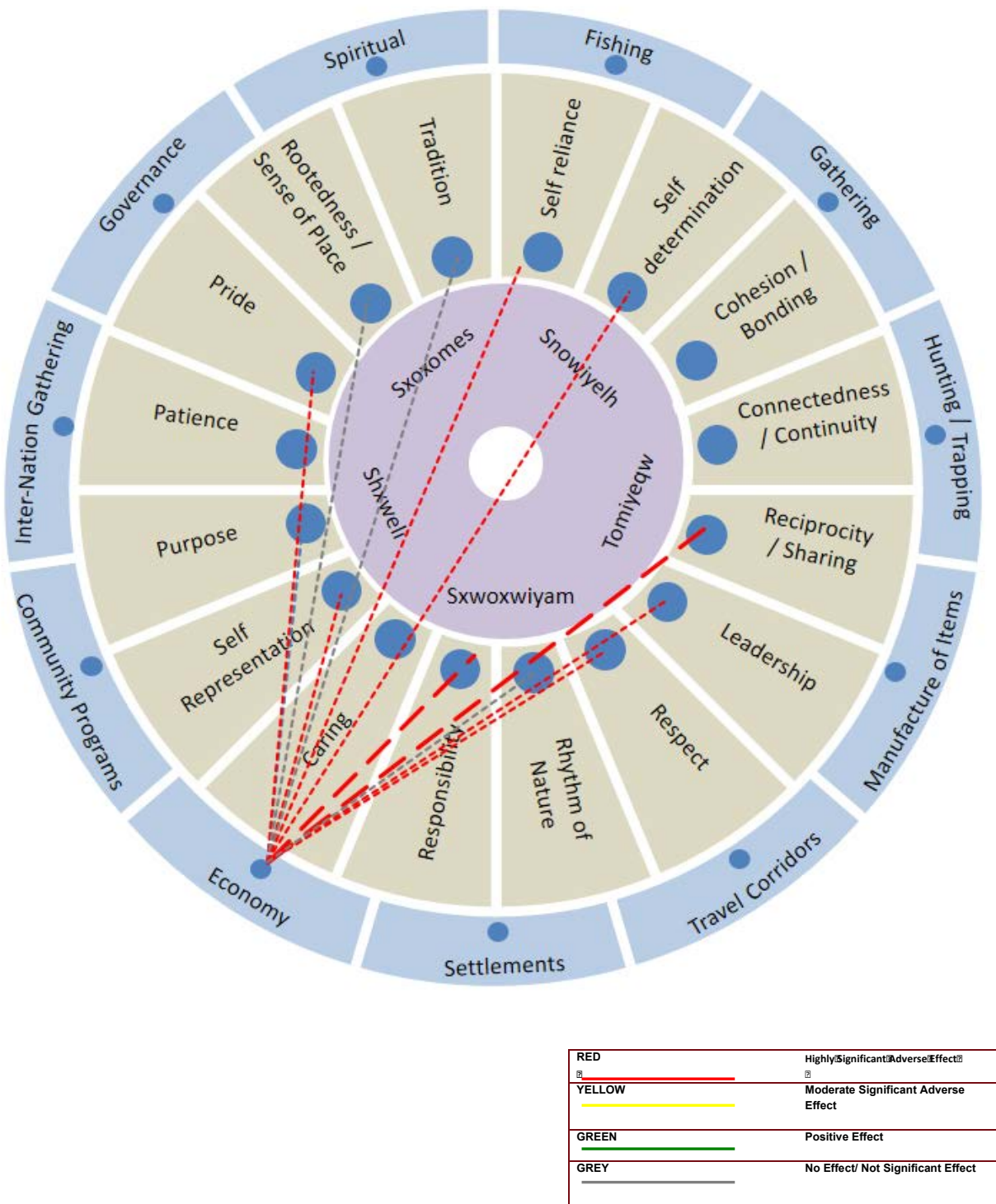


FIGURE 14-3: POTENTIAL TMEP IMPACTS TO ECONOMIC ACTIVITIES

14.7 Mitigation Recommendations for Economic Activities

As described in the previous section the TMEP is predicted to have no significant impact on Stó:lō Economic Activities.

Three key mitigations that are referenced further below are based on a commitment by TMEP to:

- ◆ Have approximately 20% to 30% of their workforce in Hope, Chilliwack and Abbotsford be Stó:lō members; for both construction and operation phases or equivalent value in community investment or training. Note: this is 20% to 30% of the overall workforce in the three hubs, not 20% to 30% of the 10% local hires that TMEP indicated.
- ◆ Offer equity ownership option in the TMEP to Stó:lō First Nations, based on the value of the Project within *S'ólh Téméxw*, or the equivalent value in another financial opportunities.
- ◆ Of the contracting and procurement opportunities for businesses in *S'ólh Téméxw*, approximately 20% to 30% of the total contracted amount would go to Stó:lō companies for both construction and operation or equivalent value in community investment or training.

Kinder Morgan indicated that the TMEP will dedicate staff to work with Aboriginal communities to identify workforce development opportunities and enhance skill development related to the TMEP. Trans Mountain's Aboriginal Peoples' Training Policy was reviewed by Stó:lō representatives and is found to be deficient as it provides no specific details about the types of training programs, how much support TMEP will directly provide, and how they will overcome the unique challenges faced by Stó:lō people and companies. The TMEP Facilities Application also refers in several sections to mitigation for economic activities being guided by the Kinder Morgan Aboriginal Procurement Policy. However, from the perspective of Stó:lō representatives, Kinder Morgan's Aboriginal Procurement Policy does not adequately address the unique challenges facing Stó:lō companies and workers.

14.7.1 The following mitigation and enhance measures are recommended by Stó:lō people as a way to enhance the new economic benefits as a result of the TMEP.

Support Stó:lō Employment Skills and Business Capacity

In addition to the *TransMountain* Training Policy for Aboriginal People and the Aboriginal Procurement Policy, the TMEP must file with the Stó:lō and NEB, for approval (or disapproval and/or amendment) , at least 12 months prior to commencing construction, an Aboriginal skills and business capacity inventory in *S'ólh Téméxw* for the Project. The inventory will include:

- ◆ A summary of Stó:lō's worker skills and business capacity, including a definition of what qualifies as a Stó:lō business;
- ◆ An analysis of the ability of Stó:lō companies and workers to meet TMEP employment and business opportunities for the Project, both during construction and operation;
- ◆ A description of identified or potential skills and business capacity gaps between Stó:lō companies and workers capacity and the skills and services needed by TMEP.

- ◆ TMEP will describe specific measures to address the gap, through support or increase skills or capacity development (including details of timing of training programs, funding provided by TMEP, locations, etc.); and
- ◆ Plans for communicating with Stó:lō workers and companies regarding skills and business capacity, any identified gaps, and any proposed measures to support or increase skills or capacity.
- ◆ TMEP will file with Stó:lō representatives and NEB, at least 6 months prior to commencing construction, any updates on the above mitigations.

Monitoring Employment Skills and Business Capacity

TMEP will file with Stó:lō and NEB, for approval (or disapproval and/or amendment) , at least 3 months prior to commencing construction, a plan for monitoring Aboriginal, local, and regional employment for the Project. The plan will include:

- ◆ a description of, and rationale for selecting, the elements or indicators that will be monitored to track Aboriginal employment, including those specific to tracking progress toward meeting commitment of 20% to 30% per cent Aboriginal employment for the three hubs in *S'ólh Téméxw* (Hope, Chilliwack and Abbotsford);
- ◆ a description of, and rationale for selecting, the elements or indicators that will be monitored to track Stó:lō contracting and procurement for the Project, including those specific to tracking progress toward meeting commitment of 20% to 30% per cent procurement for Stó:lō businesses, or the three hubs in *S'ólh Téméxw* (Hope, Chilliwack and Abbotsford)
- ◆ the monitoring methods and schedule, including information and data sources for the elements or indicators being monitored; and
- ◆ plans for consulting and reporting on Aboriginal employment and contracting and procurement with Stó:lō.

TMEP will file with Stó:lō and NEB, within 3 months after commencing construction, and every 12 months thereafter through construction and during the operation of the Project, monitoring reports for Aboriginal employment and procurement for the Project within *S'ólh Téméxw*. The reports must include:

- ◆ a summary of the elements or indicators monitored;
- ◆ a summary and analysis of Aboriginal employment and procurement during the reporting period, including:
 - i. progress made toward meeting TMEP commitment of 20% to 30% Stó:lō employment and 20% to 30% of procurement contracts for the three hubs in *S'ólh Téméxw*;

- ii. an explanation of why the targets for Stó:lō employment and procurement, if they are not met,
 - iii. the proposed measures to address identified or potential gaps or barriers in meeting the targets; and
- ◆ a summary of TMEP consultation with Stó:lō regarding employment and contracting for the reporting period. This summary must include any issues or concerns raised and how TMEP has addressed or responded to them.

14.7.2 The following mitigation measures are recommended by Stó:lō people as a way to avoid adverse economic impacts that the TMEP could have on existing Stó:lō businesses.

TMEP must file with the Stó:lō and NEB, within 6 months after commencing construction a plan on how the TMEP will work with Stó:lō businesses to ensure their existing business activities are not negatively impacted by the construction or operation of the TMEP. This will include:

- ◆ Details on TMEP contracting for services *S'ólh Téméxw*
- ◆ In collaboration with Stó:lō representatives , an analysis of any changes in service contracting costs for Stó:lō businesses and the influence that TMEP has on these changes.
- ◆ TMEP strategies for mitigating any effect they have.
- ◆ The plan will be updated every 6 months during construction and every 12 months thereafter through operations.

TMEP will file with the Stó:lō and NEB, within 3 months after commencing construction, and every 12 months thereafter through operations, a report, in collaboration with Stó:lō representatives, reports on Stó:lō economic activities such as forestry, fisheries, agriculture and tourism. The report will highlight:

- ◆ Updates on the TMEP and BC's budget for environmental emergency programs (annual spill prevention, compliance and management budgets). Explaining how Kinder Morgan is funding gaps between government spill response abilities under B.C.'s Environmental Emergency Program
- ◆ Details on how TMEP will ensure that Stó:lō economic activities will be compensated should the Project be deemed responsible for any lost production, damage to equipment or remediation work required as a result of TMEP activities, a leak or a spill.

14.8 Residual Impact Assessment for Economic Activities

As described in the previous section the TMEP is predicted to have an overall adverse significant impacts on economic activities. The mitigation recommendation section outlines actions that TMEP can take to generate positive significant economic impacts for Stó:lō people .

Assuming the TMEP agrees to and implements the mitigation measures listed in the previous section, the following would be the residual impact of the TMEP on economic activities.

Potential residual impact on new economic activities associated with TMEP would be positive. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be medium-term, therefore the importance is ranked as high. The likelihood will be likely. The combination of an importance ranking of high and a likelihood of likely results in a significance ranking of highly significant.

Potential residual impact to existing economic activities would be not significant if TMEP implements the mitigation listed above.

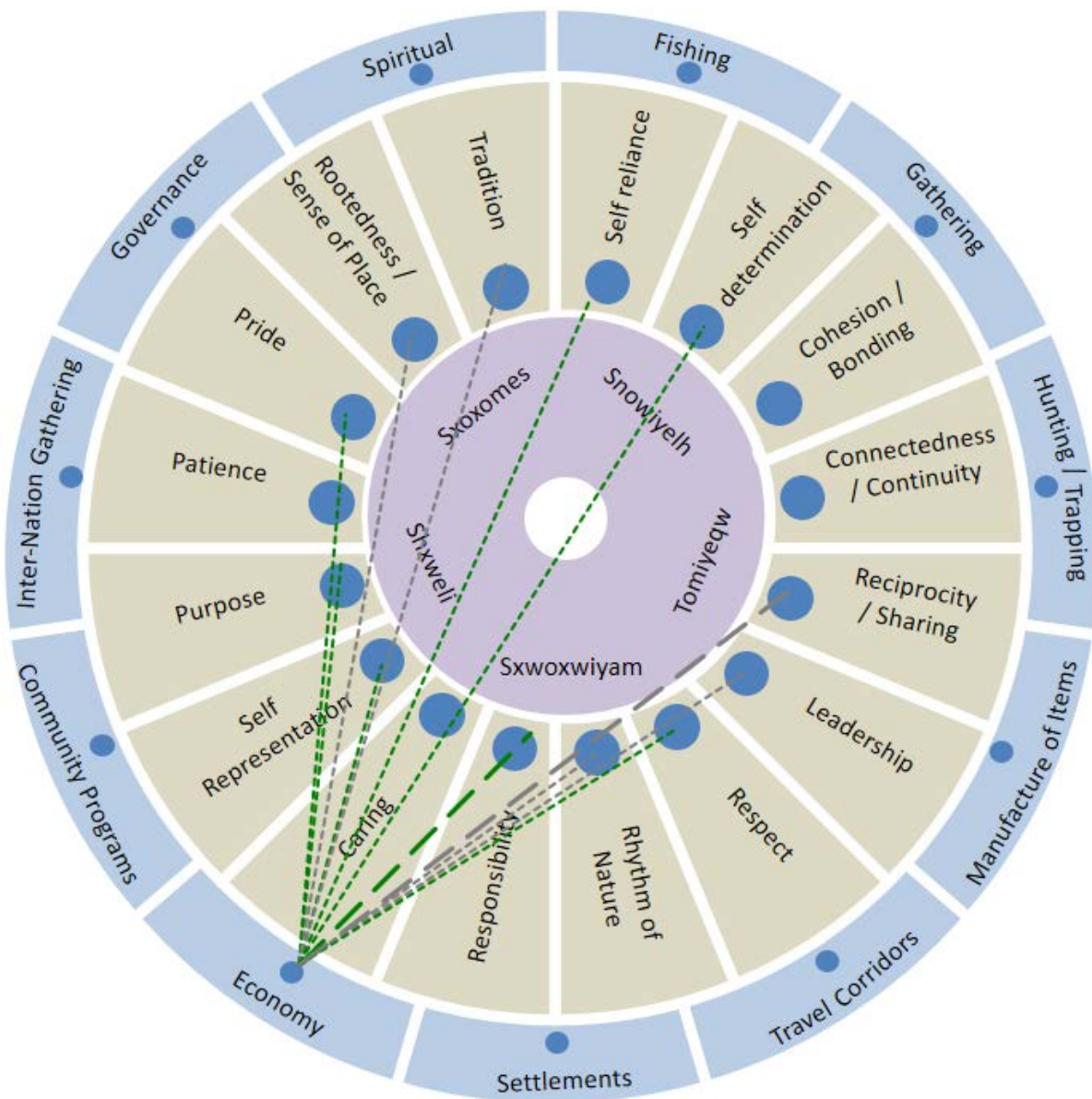
TABLE 14-5: RESIDUAL SIGNIFICANCE RATINGS FOR ECONOMIC ACTIVITIES

Value	Economic Benefits from TMEP for Stó:lō people	Effect on Existing Business	Final Rating
Self Reliance↓↓↓	H	NS	HP
Respect↓↓↓	H	NS	HP
Pride↓↓↓	H	NS	HP
Tradition ↓↓↓	-	-	-
Leadership ↓↓↓	-	NS	NS
Rootedness/sense of place ↓↓↓	-	-	-
Purpose ↓↓↓	H	NS	HP
Responsibility ↓	H	NS	HP
Rhythm of Nature↓↓↓	-	-	-
Self Determination ↓↓↓	H	NS	HP
Self Representation↓↓↓	H	NS	HP
Reciprocity/Sharing↓↓↓	-	NS	NS

H = HIGHLY SIGNIFICANT EFFECT
M = MODERATELY SIGNIFICANT EFFECT

NS = NOT SIGNIFICANT
P = POSITIVE EFFECT

Figure 14-4 below illustrates the residual TMEP impacts to Economic Activities.



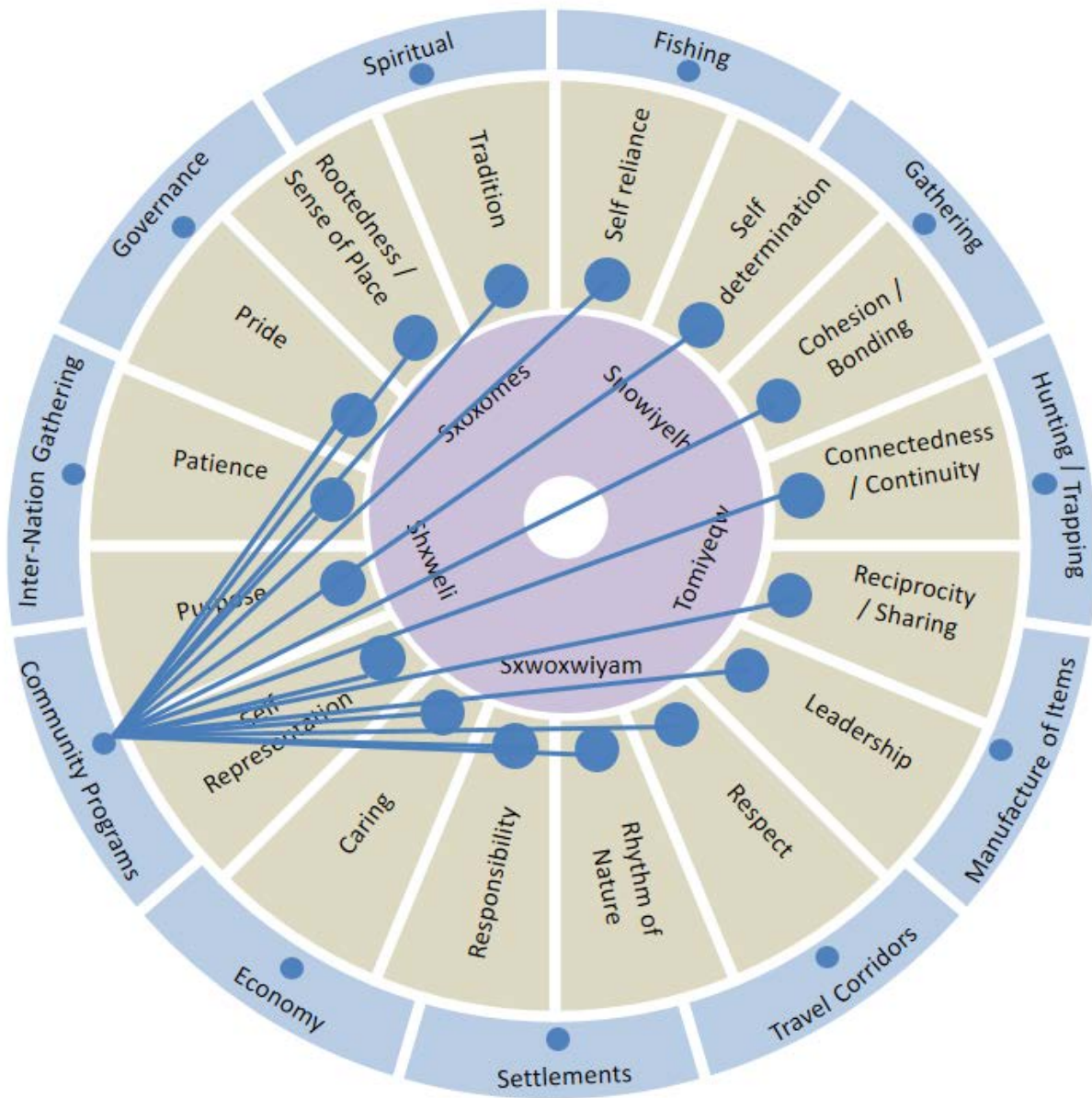
RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 14-4: RESIDUAL EFFECTS TO ECONOMIC ACTIVITIES

15.0 COMMUNITY PROGRAMS AND SERVICES/SOCIAL DEVELOPMENT

15.1 Historic Context for Community Programs and Services/Social Development

Historically, Stó:lō people maintained specific roles and relations forming the collective community defined by means of practices, beliefs, knowledge, responsibilities, and customary laws. While there were no specific programs, such as health and welfare as they exist today, there were specialists within Stó:lō society that looked after the needs of the community. Some Stó:lō people were specially educated, trained or otherwise worked to acquire spirit power that aided in activities including hunting (*Tewít* – expert hunter), doctoring (*Shxwlá:m* – Shaman, Indian doctor's spirit power), interacting with the ancestors, warfare, manufacturing items, fishing, gathering, and governing. For example, *Siyá:m* and *Shxwlá:m* played important roles in caring for peoples' well-being – including their physical, mental, emotional and spiritual health. *Siyá:m* and other specialists acted to follow principles of generosity in distributing wealth throughout the community. The well-being of the Stó:lō community was linked to understanding and continuity over time of the roles and responsibilities of the people. As figure 15-1 illustrates, historic approaches to community programs and services instilled all of the core cultural values.



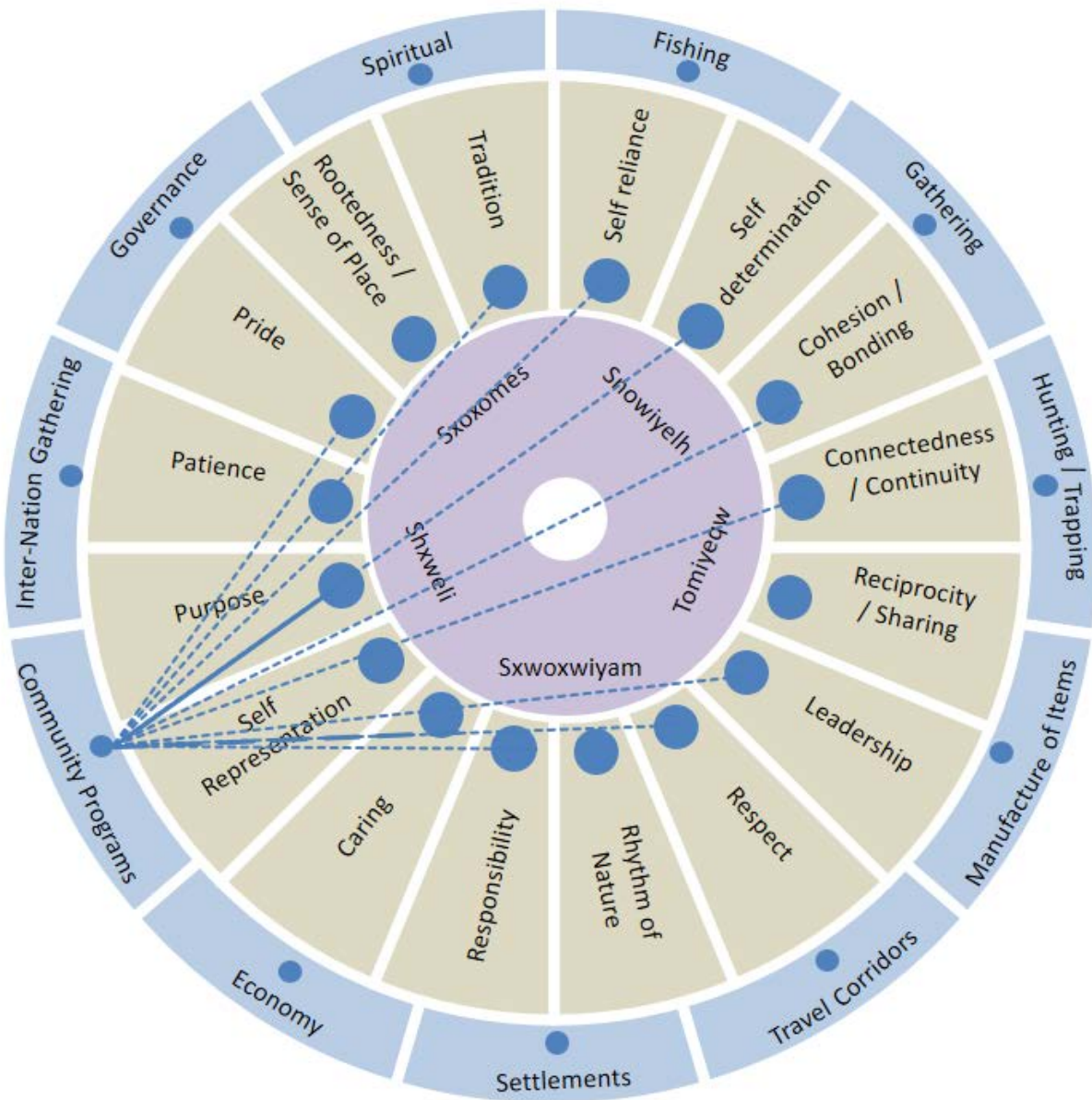
Strong direct link to value	—————
Still common activity, but there are fewer places to carry out activity or fewer people carry out the activity	- - - - -
Only very few people carry out activity or very few places to carry out this activity	.....

FIGURE 15-1: CULTURAL VALUES ASSOCIATED WITH HISTORIC APPROACHES TO COMMUNITY PROGRAMS AND SERVICES/SOCIAL DEVELOPMENT

15.2 Contemporary Context for Community Programs and Services/Social Development

As a result of continued encroachment of lands, disconnect with community, loss of identity, residential schools, reserve creation, and government control and regulation through the Indian Act, there have been significant adverse impacts on Stó:lō society. These impacts serve to erode the values of Stó:lō culture: self-governance, self-determination / representation, and self-sufficiency. Stó:lō people have started to address the need for healing by creating and providing programs and services that are specific to their culture, heritage, and needs.

As figure 15-2 illustrates, contemporary Community Programs and Services are key to maintaining connections to many cultural values.



Strong direct link to value	—————
Still 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 this activity	.....

FIGURE 15-2: CULTURAL VALUES ASSOCIATED WITH CONTEMPORARY COMMUNITY PROGRAMS AND SERVICES

15.3 Indicators for the ICA Community Programs and Services/Social Development Assessment

During information sharing sessions, Stó:lō people indicated that they are concerned that the TMEP will have a negative impact on community programs and services, by placing additional pressure on services that already are struggling to meet the demand of the community.

Stó:lō people also expressed the concern that another major development on S'ólh Téméxw would further erode the traditional community programs and services system. Stó:lō people have tried addressing the loss of traditional community programs and services by increasing the level of community outreach and creating some community-based programs housed on reserves that promote the teaching, training, and fundamentals of tradition and culture. These community-based programs are for the education of adults, youth, and children. They create an environment to share and learn with their community the activities and traditions that are essential in Stó:lō culture. They are an integral part of learning and teaching within Stó:lō communities. Moreover, community-based programs have incorporated some teachings of Stó:lō culture, including but not limited to Halq'eméylem, drumming, singing, weaving, medicines, gathering, and spiritual activities. The community-based programs rely heavily on funding, but they try to create on-going cultural programming for Stó:lō people. Two young women who volunteer, share their perspective on the importance of teaching and training tradition, language and culture:

"We have a drum group going on. There isn't a lot of funding for it, well there is no funding, but we kind of fit it in with our language and culture group and the kids are loving it. They just made their first regalia, cedar headbands, shawls, and paddles. They are dancing, drumming and singing, they're doing great with that. APTN [Aboriginal Peoples Television Network] is coming next week to film them, so that's huge. They are amazing. Kids are amazing. So that group is going on as well for culture. We just take part in anything and everything we can." Latasia (Tosha) Commodore, Stó:lō Youth and Recreation Worker (Soowahlie)

"I spent this last summer gathering cedar with my grandmother. That's where the real learning occurs with family and elders... I worked on my first Stó:lō cedar basket. It was a lot of instruction and hands on learning when making these crafts... Another part of the entire experience, is not just learning about the cedar, it's the teachings that go along with it." Saylesh Wesley, Stó:lō teacher (Skowkale)

TABLE 15-1: COMMUNITY PROGRAMS AND SERVICES/SOCIAL DEVELOPMENT CONCERNS AND TMEP STRESSORS

Community Programs and Services Concerns	TMEP Stressor *
<p>1. Wellness and Social Services/Programs (Health & Dental and Child & Family)</p> <p>a. An increase in the demand for health services due to an increase in population, construction related accidents, traffic related accidents and intentional/unintentional contamination and pollution</p> <p>b. Public safety effects</p> <p>c. Increase in the number of health services required and types of health care needed will have a negative affect on the quality of service delivery to existing residents</p> <p>d. There is limited capacity to manage the increase in demand for child and family services</p> <p>e. Social (public health) issues arising due to the presence of temporary workers</p>	<ul style="list-style-type: none"> ◆ Dust ◆ Noise ◆ Pollution – herbicide use ◆ Pollution – Spills ◆ Contamination – Air ◆ Contamination – Water ◆ Contamination – Terrestrial ◆ Increase in population and change in demographics
<p>2. Protective and Emergency Services (Police, Fire and EMS)</p> <p>1. There will be a higher demand for Police, Fire and Emergency Medical services due to construction related traffic accidents, construction related accidents, increase in population, public safety concerns</p>	<ul style="list-style-type: none"> ◆ Traffic ◆ TMEP Approval process ◆ Pipeline ruptures/spills ◆ Changes in access ◆ Increase in population and change in demographics

<p>a. Police, Fire or EMS services may have difficulty responding to an emergency due to increase in traffic volumes, traffic pattern changes and changes in access</p> <p>b. Potential for a rupture or spill</p>	
<p>3. Education and Skills and Employment Training</p> <p>a. Stó:lō people have difficulty attending post-secondary due to the lack of funds and services to support them while in school or training, such as, daycare, transportation and counselling.</p> <p>b. Stó:lō women face challenges in accessing employment opportunities.</p> <p>c. There is a concern that TMEP will not work with Stó:lō skills and development training organizations, such as SASET and Seabird, to enhance the local labour force.</p>	<ul style="list-style-type: none"> ◆ Introduction of Non – Aboriginal workforce ◆ Jobs/Contracts ◆ Traffic

For the purpose of the ICA, the community programs and services activities assessment will consider potential TMEP impacts on each of these areas of concern and discuss how TMEP stressors (elements causing project effects) could affect Stó:lō values associated with community programs and services.

In order to measure potential effects to community programs and services value linkages as a result of the TMEP, a series of cultural inputs and outputs were identified. Inputs are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. For example, by considering the question “What do you need (i.e. what skills, knowledge, cultural tools) to successfully implement community programs and services”; the ICA was able to develop a list of cultural characteristics and cultural tools associated with various community programs and services activities. How these characteristics/cultural tools (or “inputs”) are applied to an activity such as community programs and services is affected by values. By considering the question: “What do you get from implementing and running community programs and services”, another list of cultural outputs was developed. Outputs affect values. Once inputs/ outputs were identified, indicators were selected to help track changes in cultural inputs/outputs over time. Changes in these inputs and outputs are used as indicators of the cultural values themselves. The *Indicator report prepared for*

the ICA of the TransMountain Project (TTML, SRRMC, HEG 2013) (Appendix A) provides more background on how contemporary cultural inputs and outputs affect linkages to cultural values.

An understanding of community programs and services is necessary to acknowledge the importance that looking after and caring for one another within Stó:lō society is to their sense of self, community and culture.

Table 15-2 lists Cultural Values associated with community programs and services. It also lists the cultural input/outputs Stó:lō people associate with this activity. The state of contemporary value linkages that are shown on figure 15-2 are also listed in Table 15-2; downward arrows represent linkages that have been weakened over time due to various outside stressors and as such, they are vulnerable to additional developmental pressures.

TABLE 15-2: COMMUNITY PROGRAMS AND SERVICES/SOCIAL DEVELOPMENT INPUT AND OUTPUTS AND INDICATORS

Contemporary Value Linkage for community programs and services	Input/output	Indicator
<u>Wellness & Social Services and programs</u> (Health & Dental and Child & Family) Respect↓↓↓ Pride↓↓↓ Tradition↓↓↓ Leadership↓↓↓ Purpose Responsibility↓↓↓ Cohesion/Bonding ↓ Connectedness/ continuity↓↓↓ Self Determination↓↓↓ Self-Reliance↓↓↓ Self-Representation↓ Caring ↓	<ul style="list-style-type: none"> ◆ Defined role in community ◆ Capacity building ◆ Social Services (Ability to take care of each other) ◆ Health 	<ul style="list-style-type: none"> ◆ # of Stó:lō people employed by community programs/services ◆ Annual operating budget ◆ Infrastructure supporting these programs ◆ # of people living on reserve accessing community services ◆ Level of demand on these programs (is there enough capacity) ◆ Interest in politics/traditional activities/ spirituality ◆ Feelings of empowerment or dislocation
<u>Protective and Emergency Services</u> (Police, Fire and EMS) Respect↓↓↓ Pride↓↓↓ Tradition↓↓↓	<ul style="list-style-type: none"> ◆ Health ◆ Security 	<ul style="list-style-type: none"> ◆ # of Stó:lō people employed by protective and emergency services ◆ # of service contracts in place ◆ Annual operating budgets ◆ Where are the Police, Fire and EMS services providers located in the <i>S'ólh Téméxw</i>

Contemporary Value Linkage for community programs and services	Input/output	Indicator
<p>Leadership↓↓↓</p> <p>Purpose</p> <p>Responsibility↓↓↓</p> <p>Cohesion/Bonding↓</p> <p>Connectedness/ Continuity↓↓↓</p> <p>Self Determination↓↓↓</p> <p>Self-Reliance↓↓↓</p> <p>Self-Representation↓</p> <p>Caring↓</p>		<ul style="list-style-type: none"> ◆ How does the current call volume/service need compare to their staffing levels (understaffed, overstaffed) ◆ How well staffed and equipped are the Police, Fire and EMS Stations ◆ Do the Police, Fire and EMS have capacity to expand if demand increases
<p><u>Education and Skills and Employment</u></p> <p>Respect↓↓↓</p> <p>Pride↓↓↓</p> <p>Tradition↓↓↓</p> <p>Leadership↓↓↓</p> <p>Purpose</p> <p>Responsibility↓↓↓</p> <p>Cohesion/Bonding↓</p> <p>Connectedness/ Continuity↓↓↓</p> <p>Self Determination↓↓↓</p> <p>Self-Reliance↓↓↓</p> <p>Self-Representation↓</p>	<ul style="list-style-type: none"> ◆ Capacity building/Education ◆ Employment ◆ Language ◆ Empowerment 	<ul style="list-style-type: none"> ◆ Infrastructure supporting these programs ◆ Listing of cultural programs available in communities in S'ólh Téméxw ◆ Listing of cultural programs available in communities in S'ólh Téméxw ◆ Listing of cultural programs available in communities in S'ólh Téméxw ◆ Level of demand on these cultural programs (over booked or lots of space for more participants) ◆ List of key cultural traditions or seasonal events planned within S'ólh Téméxw are that would

Contemporary Value Linkage for community programs and services	Input/output	Indicator
Caring ↓		<p>overlap with construction of the TMEP</p> <ul style="list-style-type: none"> ◆ # of schools in S'ólh Téméxw ◆ Student/Teacher ratios for these schools ◆ Standardized test results for these schools ◆ What issues or challenges do Stó:lō students face within the school systems for schools in S'ólh Téméxw

15.4 Baseline – Community Programs and Services/Social Development

People living in Stó:lō communities have a variety of social services and programs available to them, including health and dental services, child and family services, protective and emergency services, land and resource management, education, and skills and employment training.

15.4.1 Baseline - Health and Dental Programs and Services/Social Development

Stó:lō Nation has signed a 10-year Health Funding Arrangement for the Stó:lō Nation Community Health Plan. Stó:lō Nation Health Services are provided to Aitchelitz, Sumas, Squiala, Shxwhà:y, Le'qa:mel, Popkum, Skowkale, Tzeachten, Yakweakwioose, Matsqui and Skawahlook. There are flow-through agreements between the 11 communities and Stó:lō Nation, so the communities can take over their own health programs and services. Through the transitional process Sumas and Squiala have started to deliver some of their own programs and services. If a First Nation takes over the delivery of a program and/or service, Stó:lō Nation Health Services will no longer provide that service and/or program to their Stó:lō people. Health services are also provided by Seabird Island and Chehalis for Stó:lō people. These clinics are funded through agreements with Health Canada.

Stó:lō Nation employs, a Community Health Engagement Coordinator, Environmental Health Officers, Optometrist, Nurse Practitioners, Community Health Nurses, a Mental Health Clinician and a Pediatrician.

Stó:lō Nation also provides the following services:

- ◆ Aboriginal Infant Development Program
- ◆ Aboriginal Supported Child Development
- ◆ Aboriginal support and crisis intervention and support
- ◆ Addictions Prevention
- ◆ Community Engagement HUB
- ◆ Parent-Child Assistance
- ◆ Environmental Health
- ◆ Medical Transportation
- ◆ Mental Wellness
- ◆ Health Education workshops
- ◆ Health and baby clinics
- ◆ Immunization promotion and administration
- ◆ Hearing and vision screening
- ◆ Pre-/post-natal care
- ◆ Promotion of good nutrition
- ◆ Diabetes-related programs
- ◆ HIV/AIDS programs
- ◆ Children`s Oral Health Initiative
- ◆ Home and Community Care Program
- ◆ Personal Care and Assisted Living Services
- ◆ Elders Lodge

Stó:lō Nation is not a primary health care provider. For more advanced health care Stó:lō people access the provincial health care services at the Abbotsford Regional Hospital and Cancer Centre, Chilliwack General hospital and the Fraser Canyon Hospital. Stó:lō Nation Health Services does not have the capacity to provide primary services effectively or efficiently to the entire Stó:lō Nation population. The Stó:lō Nation Health Services are vastly underfunded.

Stó:lō Nation does have a partnership with Fraser Health to offer a nurse practitioner service. Nurse practitioners see patients on a regular basis and prescribe roughly 95% of what a doctor can. The clinic and pharmacy is running well but it is separate from the Stó:lō Nation operations. The doctors and pharmacy have their own private practice and rents out the office space.

The majority of the services are offered to First Nations people and a number of the programs are specifically geared towards Stó:lō people. Services such as flu shots, dental work, clinic or prenatal care are available to everyone. Most of the services are provided on Stó:lō Nation grounds.

As described in the Community Health Technical Report (TMEP Facility Application, Volume 5D, Section 4.7.4) the Fraser Valley Authority report on health care statistics for First Nation communities indicated that First Nations are:

- ◆ less likely to utilize medical services compared to the general population
- ◆ have higher rates of preventable hospital admissions and
- ◆ have less follow-up from the health care system after being treated for mental health related issues.

These findings indicate that the primary health care system is not effectively reaching Stó:lō people in need, and therefore any changes caused by TMEP would make this situation worse for Stó:lō people.

Dental services are available to the public and Stó:lō Nation members, with a dentist office at Stó:lō Nation. They are not at full capacity; in other words they can handle more clients.

15.4.1.1 Social (Child and Family) Programs and Services

Social services and support are provided by the Ministry of Children and Family Development (MCFD), Aboriginal Children and Family Chiefs Coalition (ACFCC) and Fraser Valley Aboriginal Children and Family Services Society (FVACFSS), also known as *Xyolhemeylh*.

The ACFCC mandate is to assist member communities as they re-establish their inherent right to oversee child and family programs. ACFCC has signed a Memorandum of Understanding with 30 of the 34 Chiefs in the Fraser region. Each community that joins the coalition will be represented at the Board table. The preference is that Chiefs sit at the table to represent their community. However, Chief designates, who are authorized to make decisions, are welcomed. The Coalition's role is to assist its member communities in reaching their collective and individual goals relating to Children and Family services. Examples include:

- ◆ Working at a direct government-to-government level with the federal and provincial governments;
- ◆ Creating an inventory of existing services, identifying gaps and working to fill those gaps;
- ◆ Supporting and increasing the capacity of community-based initiatives such as care teams;

- ◆ Undertaking research on national and international projects that may benefit local communities;
- ◆ Working on provincial initiatives such as the Indigenous Child at the Centre Action Plan;
- ◆ Assisting with protocol agreements and other documents.

The Coalition is not involved in governance. It works on behalf of its members and does not direct individual communities. It is a relatively new initiative and therefore is not yet able to effectively handle changes in the level of supply or demand on its services.

FVACFSS is a delegated Aboriginal child welfare agency working towards providing culturally appropriate and holistic services through prevention, community development and child welfare programs to Aboriginal children, youth and their families residing throughout the Fraser Valley; both on and off reserve. The service area was divided into three regions:

- ◆ West: Langley/Abbotsford and surrounding areas;
- ◆ North: Mission/Agassiz and surrounding areas;
- ◆ Central: Chilliwack and surrounding areas.

FVACFSS provides the following services:

- ◆ Child Welfare
 - ◆ Risk Assessment and Protections Services
 - ◆ Guardianship
 - ◆ Family Services
 - ◆ Committees
 - ◆ Information and Resources
- ◆ Residential Resources
 - ◆ Foster Care Recruitment
 - ◆ Foster Parent Support
 - ◆ Safe Babies Program
 - ◆ Information & Resources
- ◆ Family Preservation Services
 - ◆ Community Greeter Program

- ◆ Family Homes
- ◆ Family Support
- ◆ Prevention and Awareness Groups
- ◆ Sexual Abuse Intervention Program
- ◆ Information and Resources
- ◆ Cultural Programs
 - ◆ Cultural Camps
 - ◆ Mentorship Programs
 - ◆ ROOTS Program
 - ◆ Traditional Counsellors
 - ◆ Information and Resources

The Chiefs Coalition and FVACFSS have a respectful working relationship on programs and services. The level of demand for these services is high and has not changed much over the past 5 – 10 years. The staff numbers have increased in the last two years to meet the increased needs of children, families and communities. Intake is the first point of contact for a child protection report. The intake worker is the “gate keeper” for all primary services. Through community surveys on child and family services providers, it was determined that roughly 25% Stó:lō people find the services not helpful at all, 52% find the services somewhat helpful and 23% find the service very helpful.

The federal government will use MCFD as the standard for what is considered appropriate spending. Therefore, FVACFSS is constrained by the federal government’s parameters. For example if the agency has cultural activities, events and/or programs, the money spent is declared as non-billable.

“I acknowledge the good work that the staff and Directors have been doing. It is great the Agency is doing more preventative work. It’s unfortunate the province puts boundaries on the Agency and constrains the Agency on how they spend their dollars.” Amanda Archie, Stó:lō person (Skowkale)

Stó:lō Nation provides social development services to Aitchelitz, Leq’á:mel, Matsqui, Popkum, Skawahlook, Skowkale, Shxwhà:y, Squiala, Sumas, Tzeachten and Yakweakwioose. The social assistance delivery includes Employable Work (EMP), WOP/ASARET (W/A), Person with Persistent Multiple Barriers (PPMB), Person with Disabilities (PWD), Child out of Parental Home (COPH). The social assistance caseload for the fiscal year of 2011-2012 was 2,014. The population of the clients and their family was 3,044. The Child out of Parental Home Program was discontinued by the AANDC on April 2012.

15.4.2 Baseline – Protective and Emergency Services

Protective services are provided by Royal Canadian Mounted Police (RCMP) and Municipal Police, Fire departments and Emergency Medical Services servicing the Stó:lō communities.

For the Stó:lō communities in S'ólh Téméxw, the City of Abbotsford is policed by an independent municipal police force and the RCMP provides municipal police services to the City of Chilliwack and the districts of Hope, Kent and Mission. There are Freeway/Highway patrol stations in Hope and Sumas.

According to the Fraser Valley Regional Profile 2011, there were 419 members assigned to police the region; 217 policed Abbotsford, 175 provided RCMP municipal police services, and 28 RCMP policed the region's provincial areas (2012).

The Police Resources in British Columbia 2011, estimates an average of 38 Criminal Code offences per officer in Abbotsford and 70 Criminal Code offences per officer in Chilliwack, Hope, Kent and Mission (2013).

The Upper Fraser Valley Regional Detachment First Nations Policing Section provides policing services to 14 of the 24 First Nations communities within S'ólh Téméxw. The area of responsibility extends from Mission to Boston Bar and as far north as the northern tip of Harrison Lake. The Abbotsford police provides services to Matsqui and the Mission police provide services to Sumas, Le'qa:mel and InSHUCKch. Although the First Nations police do not cover all of the First Nations communities they will assist when needed.

Six First Nations Constables and one Sergeant are currently posted with the First Nations Community Police Section. This specialized team responds to police calls in First Nations communities and provides a strong proactive policing approach to assist in achieving strategic priorities and safer communities. Restorative Justice is a valuable tool that officers promote within the communities and that assists in providing culturally sensitive police services.

The First Nations Community Police Section also involves community program partner MADD, DARE, Federal Department of Fisheries and Oceans, Blockwatch, Grow Watch, Citizens on Patrol, Community Actions Task Force. A key factor in helping establish stronger relationships within First Nations communities is the individual commitment of each First Nations Policing member (City of Chilliwack, 2013).

Due to the lack of funding, the First Nations police are not able to effectively provide services to all 24 Stó:lō Communities; however, they will assist with serious crime files in any of communities. The First Nations Police has tripartite agreement with eight of the Stó:lō communities. For the most part, the remaining Stó:lō communities want to have a tripartite agreement but are unable due to the lack of funding. A First Nations police officer gives examples of what is needed, if there was available funding:

"If there was enough funding it would be beneficial to have First Nation policing unit to service all of Stó:lō Nation, Stó:lō Tribal Council and the independent bands, as well

as, working with the Federal and Provincial government. It would also be beneficial to have the First Nations office in a central area that is accessible to the community members.” Gail Starr, Stó:lō woman and First Nations RCMP Officer (Seabird)

Given that there are only six First Nation Constables assigned to the 14 Stó:lō communities, some of the Stó:lō people living on-reserve, have expressed frustration with the response time from the police department. Through community surveys it was determined that roughly 60% of the Stó:lō people are satisfied with the policing services provided in their community.

“There are First Nations police but they are not always available. It’s a long wait whenever 911 is called; they take quite a while to show up. But their program delivery is awesome; they have people come in to do Stranger Danger and child identification.” Brenda Wallace, Stó:lō leader and Soowahlie Band Administrator (Soowahlie)

“Contact with Aboriginal policing is lacking, our community has never met the new head of Aboriginal Policing. Community, introduction, consultation, collaboration, is key to building relationship.” Brenda Point, Stó:lō leader and School Principal (Skowkale)

The Chilliwack fire department has six fire halls in Chilliwack, Greendale, Sardis, Rosedale, Ryder Lake and Yarrow. In 2011, there were 35 full time employees and 111 people paid-on call (POC) at the Chilliwack fire department. The amount of workers fluctuates throughout the year. For example, twenty POC fire fighters left the service and eleven new members were recruited (Chilliwack Fire Department, 2012). Currently, there are 26 full time employees and 120 POC fire fighters. Each year, the Chilliwack fire department has had roughly 2200 emergency response calls from 2008 to 2012. In the past five years, 8% of the emergency response calls have been motor vehicle incidents (Chilliwack Fire Department, 2012).

The Abbotsford fire department has eight halls in Clearbrook, Sumas Prairie, Aberdeen, Matsqui, Mount Lehman, Abbotsford, Sandy Hill and Blueridge. According to the Abbotsford fire rescue service, there were 86 full time employees and 42 people paid-on call for the Abbotsford department in (2011).

The Fraser Valley Regional District (FVRD) has seven volunteer fire departments in Popkum, Kent, Harrison, Cultus Lake and Columbia Valley. These departments have approximately 150 volunteer fire fighters (FVRD, N.D.). There has been a small to moderate increase in call volumes over the past five years. In 2012 and 2013, the FVRD fire department has had an average of 450 emergency response calls. Roughly, 20% of the emergency response calls have been motor vehicle incidents. A FVRD Electoral Area Fire Services and Programs Manager (C. Wilson., Pers. Com.), described the fire department services and how the fire department deals with call volumes:

“The fire service can be sporadic as a result of its episodic nature. That being said, our volunteers are not currently overwhelmed and are able to successfully handle call volumes. We are providing effective services with available resources. Feedback

has been largely positive; community support is shown through donations, strong attendance at open houses, etc. On average, there are enough volunteers to meet current call volumes, however we are always looking for more volunteers to further complement our services. Capacity for growth does exist; normally when an area experiences growth, we have an opportunity to also build capacity by recruiting new community members to serve on the department.”

Emergency Medical Services (EMS) are provided by BC Ambulance and provide services to all of the Stó:lō communities. The core services provided are treatment and transport of patients to hospital or between health facilities by ground or air, emergency preparedness and multi-casualty incident response and readiness. Provincially, there are 56 events per hour, on average and over 486,000 calls annually. The amount of ambulances and crews available within the Fraser Valley are not available. However, the information on services and call volume for Chilliwack was provided by a BC Ambulance staff member. In Chilliwack, there are seven staffed ambulances with 7 staff members available for each ambulance. Call volumes have fluctuated over the past 5 years, with about 9,213 calls in 2011/12. The majority of the calls are urgent “code 3” events, at about 5,417 in 2011/12. BC Ambulance is provincial, so there are no jurisdictions. If there is not enough capacity in one region to respond to a call, resources are used from surrounding areas. A FVRD Electoral Area Fire Services and Programs Manager (C. Wilson., Pers. Com.), described some of the concerns raised by BC Ambulance, on what impacts response times are:

- ◆ Call volume demands – Availability of Ambulance
- ◆ Information and updates given to Emergency Medical Dispatch
- ◆ Distance – Large coverage area
- ◆ Traffic congestion – road work, summer traffic, weather conditions
- ◆ Accessibility to patient – Safe or clear parking area, access codes and elevators
- ◆ Visibility of address signs
- ◆ Off load delay/Emergency Department

Through community surveys it was determined that roughly 80% of the Stó:lō people are satisfied with the ambulance services provided in their community.

15.4.3 Baseline – Lands Management and Resource Management

Stó:lō people have a number of entities that deal with land and resource management issues. They are covered in the Governance Section of the ICA.

15.4.4 Baseline – Education

Stó:lō people teaching others through formal and informal efforts occurs in S’ólh Téméxw. Formal cultural teaching is delivered through programs with various First Nations. The cultural training

programs cover a variety of topics ranging from Halq'eméylem language to cultural activities to Stó:lō history. Stó:lō Nation, provides services to Stó:lō Nation members.

Stó:lō Nation has two schools that are recognized as provincial schools and have been operating since 1995. Stó:lō Education Centre, is for people 17 years of age or older who are earning their Dogwood Certificate. Stó:lō Alternate is for students who are between the ages of 12-16.

Aboriginal eMentoringBC is an online mentoring program for Aboriginal youth that:

- ◆ Supports youth to believe they can graduate high school and enter university/college
- ◆ Sparks interest in the health sciences – an area that desperately needs more Aboriginal professionals.
- ◆ Creates cross-cultural dialogue between universities/colleges and Aboriginal communities about education

The Post-Secondary Student Support Services provides academic counselling and financial support to Stó:lō Nation members whose education funds are administered through Stó:lō Nation Education services. Scholarships and bursaries are also available to post-secondary students and are awarded based on grades, course load, and GPA. Bursaries are based more on needs however, grades are still a factor.

The *Shxweli* Language Program is an important ingredient of a healthy community as it supports the academic strengthening of its members. Education is a life-long journey that must be accessible to all Stó:lō people. Stó:lō Education Services provides support for children and adults enrolled in certain education programs.

Stó:lō *Shxweli* holds many classes in the *Halq'eméylem* Language as well as the first ever DSTC course in all of BC. The courses required will provide First Nations language and culture teachers with detailed education in: First Nations or Aboriginal Languages spoken in BC; First Nations Studies or culture; The BC College of Teachers' academic prerequisites; and Professional development.

The program also encourages the preservation and maintenance of First Nation language and culture. Stó:lō Nation holds the Language Authority for the Halq'eméylem language. The *Lalems Ye Selyolexwe*, House of Elders, of Stó:lō Nation is the language authority.

Since 1995, the *Shxwt'a:selhawtxw* Longhouse Program has offered teachers and students a hands-on approach to learning about the Stó:lō way of life, philosophy, technology and culture. Stó:lō artists and crafts people are the cultural interpreters who create original objects and replica pieces while interacting with guests. The longhouse program offers the following programs:

- ◆ Tours are offered, all year, on the *Shxwt'a:selhawtxw* Interpretive Centre, Ethno-botanical garden and Longhouse as a First Hand Place of Learning, unlike a public school environment or Museum.

- ◆ There is a grade 4 program that typically hosts over 900 Grade 4 Students from School District 33 for interactive cultural learning opportunities.
- ◆ The Steqó:ye (School Outreach) Program provides interactive learning opportunities in classrooms through presentations and workshops.
- ◆ The Longhouse program also holds various cultural events, such as Stó:lō Veterans Day, First Salmon, Burnings, Naming, Graduation and honoring Ceremonies.

Early childhood Education programs are available at the A:lmelhawtxw ECE Centre which includes culturally relevant daycare for Stó:lō people. The Headstart program is a program for families and expecting mothers (Family program) and Preschool children aged 3 and 4. Both of these programs try to integrate spiritual, mental, physical, social, and cultural health into their service.

The Cheam First Nation has a few cultural education programs, including:

- ◆ Language Program - 10 week sessions throughout the year
- ◆ Salish Weaving & Sewing classes - Weekly sessions throughout the year
- ◆ Cedar Bark Gathering - Seasonal session in the spring
- ◆ Traditional Herbs & Tea Gathering - seasonal session typically in the fall
- ◆ Cedar Weaving - twice a year in the spring and the fall

Many of the programs offered by Cheam are in the fall and wintertime. The cultural programs in the Stó:lō communities and education system are well attended. The cultural teaching is viewed by Stó:lō people as an important activity to draw different generations together. A Soowahlie member described it as:

"We have some of the elders who just come and sit in sometimes or they'll just pop in to see what we're up to that day ... So they are all [kids and elders] here together every day and they all go to school together at Cultus, so they are all there and all here together, so I guess that in itself is cultural because it is all done together."
Latasia (Tosha) Commodore, Stó:lō Youth and Recreation Worker (Soowahlie)

The Seabird Island Band provide a supportive and culturally relevant learning environment which places a high value on life-long learning, respect for self and others, honesty, integrity, generosity and hard work.

Lalme' Iwesawtexw (Seabird Island Community Elementary and Secondary School), meaning "House of Learning" in *Halq'eméylem* language, was named after Mary Charles, a Seabird Island Band Elder and mother of Grand Chief Archie Charles. Opening a First Nations Band controlled school had been *Lalme's* dream for many years. She later became Chairperson of the School Committee after it was built. *Lalme' Iwesawtexw* offers quality B.C. Curriculum for First Nations Kindergarten to Grade 12 students which fosters and promotes cultural values and the *Halq'eméylem* language taught by BC

Certified teachers. Our small class sizes create an optimal learning environment for our students with one-on-one time with their teachers.

The *Lalme' Iwesawtexw* (Adult Education) offers adult learners (19+) the ability to succeed in getting their Adult Dogwood, GED as well as offers Trades and Vocational studies and Adult Upgrading.

Seabird College began operations in 2009, offering an array of programs offered to First Nations and Non-First Nations learners. Seabird College programs are all specifically designed for learners to succeed and are offered at low-cost.

Seabird has a full range of additional specialized programming for all grades including:

- ◆ Preschool Program
- ◆ Unique Stó:lō language and cultural studies and activities.
- ◆ Trades, technology and vocational training.
- ◆ Tutoring programs and extra help.
- ◆ Free bus services from Agassiz, Hope, and Chilliwack.
- ◆ After school care run by the Seabird Island Community Services Program.
- ◆ Athletics and sports academics.
- ◆ Young Parents Program

The provincial school system is another space where cultural teaching could occur, especially with non-Stó:lō people. However, there are minimal numbers of Stó:lō cultural education programs integrated into the provincial education system. Stó:lō people are rarely given the opportunity in the provincial system to share information about their culture with aboriginal and non-aboriginal students. Some institutions, such as University of Fraser Valley, are trying to integrated First Nation knowledge and culture into the curriculum, however there are some challenges with it, as Skowkale member noted:

"I think it's the idea that UFV [University of Fraser Valley] is aiming for. They still in process of indigenizing academy... I think the attempts are there but the provincial government is flawed and I think they're setting us up to fail." Saylesh Wesley, Stó:lō teacher (Skowkale)

Stó:lō students, in *S'ólh Téméxw*, attend the provincial school system in Chilliwack, Abbotsford and the Fraser-Cascade area. Stó:lō Nation is working with Chilliwack School District #33 to hire three youth mentors and one coordinator to manage a program called Keeping Kids in School Project. Although not a cultural training program, the four staff members work closely with school-based teams, parents and community groups to provide full-scale support to students at risk of disconnecting from school.

The Province of British Columbia (2013), provided statistics for the school districts relevant to the Stó:lō communities in S'ólh Téméxw. Over the past six years the population of Aboriginal students, between Kindergarten and grade 12, living in S'ólh Téméxw have consistently been between 14% and 15%.

While the difference in graduation rates between Aboriginal and non-Aboriginal fluctuate by school district and type of graduation rate, generally Aboriginal students in these school districts are lower than those for non-Aboriginal students. By 20011/12 school year, the six-year completion rate for Aboriginal and non-Aboriginal students in the three district were as follows:

- ◆ Abbotsford School District – 65.4% for Aboriginal students versus 86% for non-Aboriginal students;
- ◆ Chilliwack School District – 52.9% for Aboriginal students versus 74.9% for non-Aboriginal students; and,
- ◆ Fraser-Cascade School District – 64.9% for Aboriginal students versus 73.1% for non-Aboriginal students.

The trend is that for some of the Aboriginal graduate completion measures in some of these districts they have not improved and have in fact declined. Some of the reasons for the poor performance of Stó:lō students and the lack of opportunities to teach Stó:lō culture in the provincial schools system are captured in the comments below:

“Students are still facing racism from teachers; [teachers] they are uneducated about Stó:lō people.” Jonathan Williams, Stó:lō person and Aboriginal Liaison for school district 75 (Cheam and Skwah member)

“Schools don’t teach about Stó:lō, they are usually teaching about American and Eastern First Nations. They don’t teach about how Stó:lō people were here first... Schools are surrounded by Stó:lō people, so they should learn about us.” Jonathan Williams, Stó:lō person and Aboriginal Liaison for school district 75 (Cheam and Skwah member)

“As a First Nations support teacher, I would use different teaching techniques including circles. The children were never respected by their teachers. The teachers would gossip about the students, so when the students go to the next grade the teacher think they already know about the child.” Jonathan Williams, Stó:lō person and Aboriginal Liaison for school district 75 (Cheam and Skwah member)

The public system makes it harder for Stó:lō members to learn about their culture because there is intolerance, lack or unwilling to build relationships and Eurocentric views.” Helena Paul, Stó:lō person (Skowkale)

“I’ve heard students, not just in elementary, high school, middle school, in the university levels too, their voice are not being heard, there’s still the treatment differences. I mean like it’s getting better if you compare it from, if you take it from residential school ‘til now. But the work is not done, is what I am saying. ... We are

still being taught about the American First Nations.” Latasia (Tosha) Commodore, Stó:lō Youth and Recreation Worker (Soowahlie)

“I think when Stó:lō kids go into the public school system, they’re set up to be stigmatized and lettered or numbered. They are fringed to alternative schools, like CHANCE, where they’re not able to go to regular schools. Intentionally flawed school system...There should be a First Nations teacher for every school.” Saylesh Wesley, Stó:lō teacher (Skowkale)

Below are lists of the elementary, middle, secondary and alternate schools within each of the three areas.

According to the Chilliwack School District #33 (2013), Stó:lō students attend the following provincial schools in Chilliwack:

Elementary Schools

- | | |
|---|-----------------------------------|
| ◆ Bernard Elementary | ◆ Evans Elementary |
| ◆ Promontory Heights Elementary Community | ◆ Tyson Elementary |
| ◆ Central Elementary Community School | ◆ F.G. Leary Fine Arts Elementary |
| ◆ Robertson Elementary | ◆ Unsworth Elementary |
| ◆ Cheam Elementary | ◆ Greendale Community Elementary |
| ◆ Rosedale Traditional Community | ◆ Vedder Elementary |
| ◆ Cultus Lake Community School | ◆ Little Mountain Elementary |
| ◆ Sardis Elementary | ◆ Watson Elementary |
| ◆ East Chilliwack Elementary | ◆ McCammon Traditional Elementary |
| ◆ Strathcona Elementary | ◆ Yarrow Community Elementary |

Middle Schools

- | | |
|----------------------|----------------------------------|
| ◆ A.D. Rundle Middle | ◆ Rosedale Traditional Community |
| ◆ Mt. Slesse Middle | ◆ G.W. Graham Middle-Secondary |
| ◆ Chilliwack Middle | ◆ Vedder Middle |

Secondary Schools

- ◆ Chilliwack Secondary
- ◆ Sardis Secondary
- ◆ G.W. Graham Middle-Secondary

Alternative Programs/Community Schools

- ◆ C.H.A.N.C.E. Alternate
- ◆ Fraser Valley Distance Education School
- ◆ Education Centre
- ◆ Shxwetilthet: Stó:lō

According to the Abbotsford School District #34 (2013), Stó:lō students attend the following provincial schools in Abbotsford:

Elementary Schools

- ◆ Abbotsford School of Integrated Arts (ASIA)
- ◆ Aberdeen Elementary
- ◆ Alexander Elementary
- ◆ Auguston Traditional Elementary
- ◆ Barrowtown Elementary
- ◆ Blue Jay Elementary
- ◆ Bradner Elementary
- ◆ Centennial Park Elementary
- ◆ Clearbrook Elementary
- ◆ Dave Kandal Elementary
- ◆ Dormick Park Elementary
- ◆ Dr. Roberta Bondar Elementary
- ◆ Dr. Thomas A. Swift Elementary
- ◆ Godson Elementary
- ◆ Harry Sayers Elementary
- ◆ Jackson Elementary
- ◆ John MacLure Community School
- ◆ King Traditional Elementary
- ◆ Margaret Stenersen Elementary
- ◆ Matsqui Elementary
- ◆ McMillan Elementary
- ◆ Mountain Elementary
- ◆ Mt. Lehman Elementary
- ◆ Prince Charles Elementary
- ◆ Ross Elementary
- ◆ Sandy Hill Elementary
- ◆ South Poplar Traditional Elementary
- ◆ Ten-Broeck Elementary
- ◆ Terry Fox Elementary
- ◆ Upper Sumas Elementary

Middle Schools:

- ◆ Abbotsford Middle School
- ◆ Abbotsford School of Integrated Arts (ASIA)
- ◆ Abbotsford Traditional Middle
- ◆ Chief Dan George Middle
- ◆ Clayburn Middle
- ◆ Colleen & Gordie Howe Middle
- ◆ Eugene Reimer Middle
- ◆ William A. Fraser Middle

Secondary Schools:

- ◆ Abbotsford Senior Secondary School
- ◆ Abbotsford Traditional Secondary
- ◆ Abbotsford Virtual School
- ◆ Bakerview Centre for Learning
- ◆ Rick Hansen Secondary
- ◆ Robert Bateman Secondary
- ◆ W.J. Mouat Secondary
- ◆ Yale Secondary

Alternative Programs/Community Schools:

- ◆ Central Abbotsford Community School
- ◆ West Abbotsford Community School

According to the Fraser-Cascade School District #78 (2013), Stó:lō students attend the following provincial schools in the Fraser Cascade area:

Elementary Schools

- ◆ Agassiz Elementary-Secondary
- ◆ Boston Bar Elementary-Secondary
- ◆ Coquihalla Elementary
- ◆ Harrison Hot Springs Elementary
- ◆ Kent Elementary
- ◆ Silver Creek Elementary

Secondary Schools

- ◆ Hope Secondary

Alternative Programs/Community Schools

- ◆ Agassiz Centre for Education
- ◆ Two Rivers Education Centre
- ◆ Fraser Cascade Mountain

Some of the teachings would not be part of organized educational programs, but occurs during time spent together with family or elders, either in home or outdoors. Teaching in this context is already being discussed in other sections such as fishing, gathering and spiritual activities. The ability of Stó:lō people to fish, gather, etc. has been negatively affected by development, and therefore the informal teaching opportunities are fewer. Some of the informal teaching that takes place are captured in the following comments:

"Teachings [in the smokehouse] are being cut down. Before it used to be open to everyone but now the floor is only open to four people max[imum]." Jonathan Williams, Stó:lō person and Aboriginal Liaison for school district 75 (Cheam and Skwah member)

"Any ceremonies and gatherings are essentially places of training. Fasting, praying, smudging, connecting with our spirit are ways we learn and teach." Latasia (Tosha) Commodore, Stó:lō Youth and Recreation Worker (Soowahlie)

"Traditional knowledge is passed down at the longhouse and while fishing and hunting." Cheyenne Trumble, Stó:lō person (Sumas)

"I go on nature walks with my great aunt or sit and talk with my grandmother to learn about my culture." Stó:lō youth (Sumas)

15.4.5 Baseline – Skills and Employment

A number of skills and employment training programs being established by Stó:lō people. The programs and the potential effect on them is discussed in the Economy Section of the ICA.

15.5 Impact Assessment – Community Programs and Services/Social Development

The provision of community programs historically helped Stó:lō people define their role in the community and reinforced their cultural bonds by providing the ability to take care of one another. In the contemporary context, the challenges of the Stó:lō people to provide these services themselves, or the effectiveness of the government managed programs can have a detrimental effect on their culture. As mentioned in the baseline information, some of the challenges for community social development programs and services are lack of funding, constraints and restrictions due to government funding requirements, limited capacity and jurisdiction issues.

15.5.1 Impacts – Health and Dental Programs and Social (Child and Family) Services

The anticipated hub communities within S'ólh Téméxw are Hope, Chilliwack and Abbotsford which will be a base for construction spreads. The TMEP has indicated that 90% of their workforce in these

hubs will be made up of workers from outside S'ólh Téméxw. The presence of these non-local workers can affect demand on health services in S'ólh Téméxw.

In addition to the influx of workers into communities, there are other potential effects on community health as it relates to socio-economic health effects and health care services. Some of the health effects will be from direct changes caused by the TMEP. For example, there will be:

- ◆ changes in air, water and terrestrial quality due to intentional or unintentional environmental contamination and pollution. For example, chemical release (herbicides), spills and ruptures;
- ◆ potential occupational and traffic related accidents;
- ◆ increased drug and alcohol use and sexually transmitted infections associated with transient construction workforce;
- ◆ a negative impact on the wildlife availability/ subsistence food sources; and
- ◆ a change in the demographic makeup of communities.

In addition, community health may indirectly interact with TMEP attributes through changes to social, economic or biophysical attributes.

As mentioned in the Community Health Technical Report (TMEP Facility Application. Volume 5D, Section 5.1.4), there will likely be a short-term increased demand for housing accommodations that is anticipated to cause an upward pressure on the price of rental and/or short-term accommodations. There will also be a decrease in housing availability. This will further deteriorate the living conditions for some Stó:lō families. As noted in the settlements baseline information, Stó:lō families are already facing overcrowding issues. Overcrowding contributes to multiple health issues such as, increased risk of contagious disease; familial stress and conflict; loss of supportive social networks, displacement and homelessness.

During construction, the non-local workers will be not have access to their normal social supports, community and cultural connections. In addition, the non-local workers will have an increased disposable income while staying in S'ólh Téméxw. These factors can contribute to non-local workers suffering from mental wellness issues, as well as, substance and alcohol abuse (Parkins and Angell 2011). Some of the socially-related health concerns associated with alcohol and substance abuse are the increase in the consumption of alcohol, illegal drugs and misused prescription drugs, and violence, crime, injury, chronic disease, and poor mental health outcomes.

During construction, there is potential for the mental well-being of Stó:lō people to be negatively impacted by changes in the social environment and social support networks associated with changes in the make-up of Stó:lō communities. Negative impacts on Stó:lō community health include social tension between TMEP workers and local residents, increased numbers of contagious diseases and sexually transmitted infections and injuries resulting from adverse interactions with residents within S'ólh Téméxw, especially for vulnerable groups like young women. As noted in the

Community Health Technical Report (TMEP Facility Application. Volume 5D, Section 5.2.1), a measureable increase in the sexually transmitted infections is possible in Hope, however Stó:lō researchers have indicated there is a potential for an increase in STI throughout S'ólh Téméxw as a result of the TMEP.

There will be an overall increase in the demand for health and social services, with the combination of local and non-local people within S'ólh Téméxw, especially with those experiencing mental wellness problems, as well as, substance and alcohol abuse, during construction. The increase in the demand for health and social services required and types of care needed will have a negative effect on the quality of service delivery to existing residents, in S'ólh Téméxw.

As mentioned in the Community Health Technical Report (TMEP Facility Application. Volume 5D, Section 5.1.2), in many towns along the proposed pipeline corridor, health services are limited and staff recruitment and retention is challenging. Mental health, addictions and social services, are often not able to expand in response to increased demand. Also mentioned in the baseline information for health and social services, the Stó:lō Nation health and social services are vastly underfunded. The primary health care and social services systems are not effectively reaching Stó:lō people in need, and therefore Stó:lō people are likely to be disproportionately impacted by any changes in the provision of health and social services as a result of the TMEP.

During operation, intentional or unintentional pollution and contamination, such as spills, ruptures or chemical release, will have adverse effects on the health of Stó:lō people residing in close proximity.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be medium-term, therefore the importance is ranked as high. The likelihood will be likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of highly significant.

15.5.2 Impacts – Protective and Emergency Services

As previously noted, the anticipated hub communities within S'ólh Téméxw are Hope, Chilliwack and Abbotsford which will be bases for construction spreads. TMEP has indicated that over 90% of their workforce in these hubs will be made up of workers from outside S'ólh Téméxw. The presence of these non-local workers will exert an influence on protection and emergency services, in S'ólh Téméxw.

In addition to the influx of workers into communities, there are other potential effects on public health and safety. Some of the health effects will be from direct changes caused by the TMEP. With the TMEP going through there is an increased risk in hazards and safety. During construction, there will be a higher risk of occupational and traffic related accidents. During construction and operation, there is a potential risk of spills or ruptures.

There will be an overall increase in the demand for protection and emergency services. With the combination of local and non-local people within S'ólh Téméxw, especially with those experiencing mental wellness problems, as well as, substance and alcohol abuse, during construction. The TMEP

Facility Application (Volume 5B section 7.0), notes the non-local workers will increase the demand on hospital emergency departments for several reasons: emergency departments are generally open 24 hours a day and can be accessed after shift work; as non-local workers are only in S'ólh Téméxw temporarily, many prefer to use emergency departments rather than establishing a relationship with primary caregivers in S'ólh Téméxw. In addition, some of the community health effects described in other subsections, such as traffic-related injury, tend to present first in the emergency department.

As mentioned in the baseline information, there are only six First Nation Constables assigned to the 14 Stó:lō communities, some of the Stó:lō people living on-reserve, have expressed frustration with the response time from the police department. Due to the lack of funding there is not enough First Nations police to service all 24 Stó:lō communities effectively. The increase in the demand for protection and emergency services and types of care needed will have a negative effect on the quality of service delivery to existing residents, in S'ólh Téméxw.

During construction, the TMEP will have adverse impacts on the response time for protection and emergency. Higher call volume demands will have an affect on the availability of protection and emergency services. Increased traffic congestion, such as, road work, summer traffic, weather conditions will have an impact on the response time as well.

During operations, a malfunction, such as a spill or rupture will have an impact on all protection and emergency services in S'ólh Téméxw.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be medium, the geographic extent will be regional and the duration will be medium-term, therefore the importance is ranked as high. The likelihood will be likely. The combination of an importance ranking of medium and a likelihood of likely results in a significance ranking of highly significant.

15.5.3 Impacts – Education

The TMEP is not expected to directly affect educational services in S'ólh Téméxw, *however* the digging up of the Watson School yard for the construction of the TMEP is expected to have an adverse effect on that school. Part of the TMEP route will go through the back edge of the schoolyard at the Watson Elementary School, which, as described in the baseline, is one of the schools Stó:lō children attend. As described in the Governance Sections of the ICA, the TMEP is a high profile example of development occurring in S'ólh Téméxw which Stó:lō people have virtually no control over. This negative influence is likely to be expressed by Stó:lō people at home and children in those households would notice the frustration of their parents and may internalize some of that frustration themselves. The digging up of the Watson School yard for the construction of the TMEP, would be negative visual re-enforcement of the sense of disempowerment and frustration that Stó:lō people feel. This could have a negative impact on their scholastic outcomes

Teaching opportunities that occur during activities such as fishing, gathering and spiritual activities will be negatively affected during construction and operations. This is further discussed in the Fishing Section of the ICA.

The direction of the impact will be adverse. The societal impact will be at the tribal level, the magnitude will be low, the geographic extent will be regional and the duration will be short-term, therefore the importance is ranked as low. The likelihood will be likely. The combination of an importance ranking of low and a likelihood of likely results in a significance ranking of moderately significant.

15.5 Impact Summary

For the purposes of the ICA, the Community Programs and Services Activities assessment considered potential TMEP impacts to specific areas of concern and discussed how TMEP stressors (i.e. project effects) could affect Stó:lō values associated with these activities. These areas of concern were:

- ◆ Increase in the level of demand and therefore a decrease in availability of health and child and family services
- ◆ Increase in the level of demand and therefore a decrease in availability of protective services
- ◆ Negative influence on educational services

H+H = H
H+M = H
H+P = M
M+M = M
M+P = M
P+P = P

Stó:lō people also expressed concern about land and resource and training, which are discussed in the Governance and Economy Sections respectively, and therefore not described here.

Based on the impact rating criteria described earlier in Section 2.2.3 cultural effects resulting from the TMEP have an additive effect.

Positive effects can offset some adverse effects and moderate final impact ratings. Where there is no direct interaction between a TMEP stressor and a particular value a dash (-) has been entered into the table 15-3 below.

TABLE 15-3 PRE-MITIGATION SIGNIFICANCE RATINGS FOR COMMUNITY PROGRAMS AND SERVICES ACTIVITIES

Value	Health and Child and Family Services	Protective Services	Educational Services	Final Rating
Respect ↓↓	H	H	M	H
Pride ↓↓	H	H	M	H
Tradition ↓↓	H	-	M	H
Leadership ↓↓	-	H	M	H

Value	Health and Child and Family Services	Protective Services	Educational Services	Final Rating
Responsibility ↓	H	H	M	H
Cohesion/Bonding ↓	H	-	-	H
Connectedness/ Continuity↓↓	H	-	M	H
Self Determination ↓↓	H	H	M	H
Self Representation↓↓	-	H	M	H
Self Reliance↓↓	-	H	M	H
Caring↓	H	-	M	H

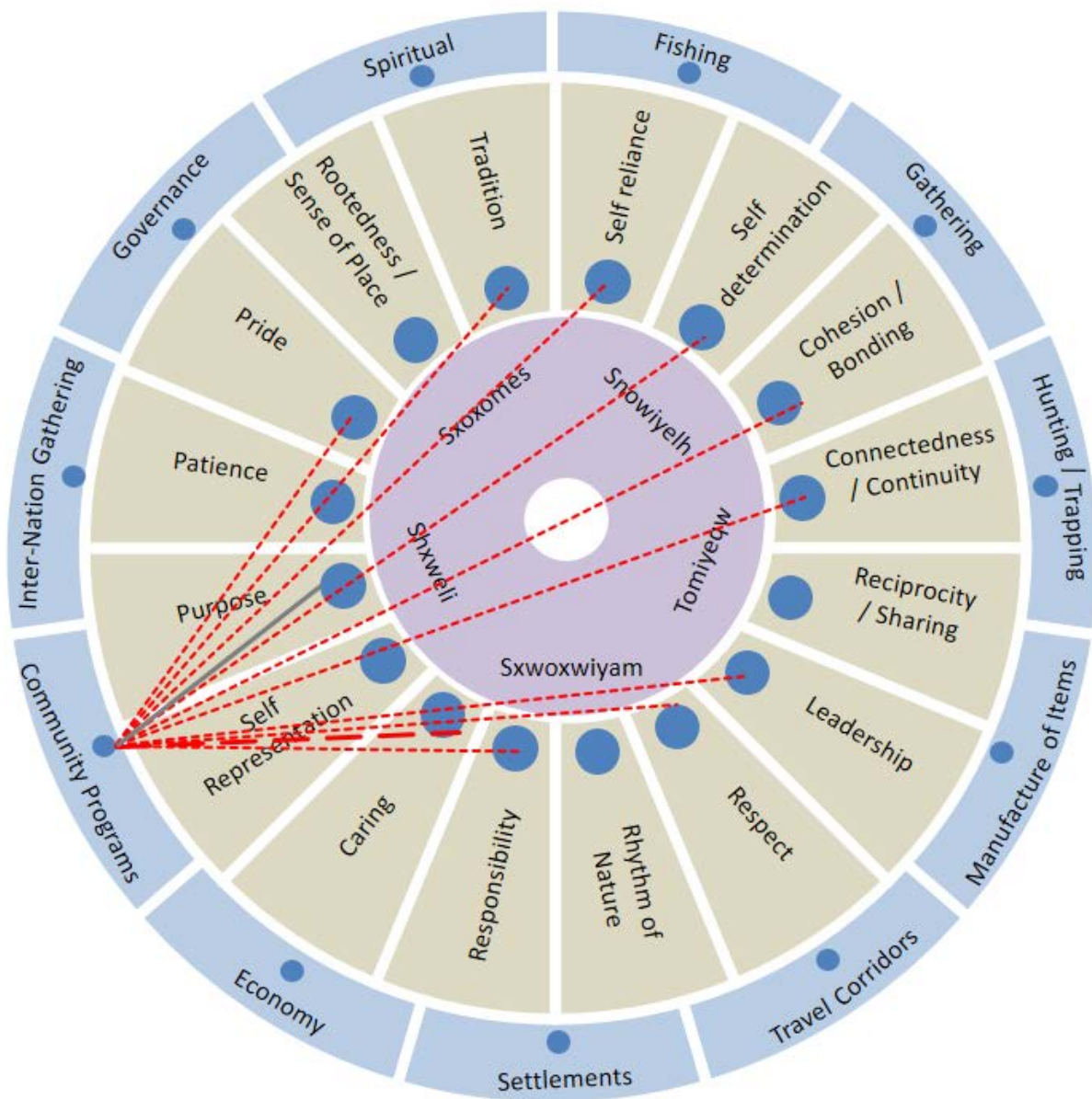
H = HIGHLY SIGNIFICANT EFFECT

M = MODERATELY SIGNIFICANT EFFECT

NS = NOT SIGNIFICANT

P = POSITIVE EFFECT

Figure 15-3 illustrates the TMEP impact to economic activities, prior to mitigation measures



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 15-3: POTENTIAL TMEP IMPACTS TO COMMUNITY PROGRAMS AND SERVICES

15.6 Mitigation Recommendations – Community Programs and Services/Social Development

As described in the previous section the TMEP is predicted to have highly significant adverse impacts.

The following mitigation and enhance measures are recommended by Stó:lō representatives as a way to minimize or avoid negative impacts as a result of the TMEP.

Individual mitigations are presented on a topic-by-topic basis below, however they would all involve a similar approach of:

- ◆ Focus on preventative measures to avoid negative impacts from occurring
- ◆ Programs and policies that would assist Stó:lō people if they experience negative impacts, and
- ◆ On-going monitoring and reporting back to Stó:lō

15.6.1 Mitigation Recommendations – Preventative Health Measures

As described in the previous section the TMEP is predicted to have highly significant adverse impacts. The adverse impacts correlate, to some extent, with the number of non-local workers coming into *S'ólh Téméxw* to construct the TMEP. Hiring more local workers and in particular, more Stó:lō workers would help avoid or reduce some of the adverse impacts. As discussed in the Economy Section, Stó:lō representatives recommend that TMEP ensure 15% of their workforce in the Hope, Chilliwack and Abbotsford hubs are Stó:lō people.

In addition to the hiring of more Stó:lō workers, the TMEP will file with the Stó:lō representatives and NEB, for approval, at least 6 months prior to commencing construction the following:

A Complaints Registration Plan. This would establish a process by which Stó:lō people can raise complaints or concerns related to TMEP activities or workers. This process will deal with all complaints, such as, concerns about behaviour of TMEP construction workers, while on or off duty. Ensure this process includes protocols for timely follow-up by Trans Mountain and/or its Contractors and transparent issue resolution, and communicate this process to Stó:lō communities.

An alcohol and substance abuse policy. This policy would be specific to *S'ólh Téméxw* and would ensure all necessary measures are taken, so the construction workforce is drug and alcohol free. The alcohol and substance abuse policy should apply to workers while they are in *S'ólh Téméxw*, where they are on or off duty. It is imperative there is security and enforcement of policies related to substance and alcohol use and personal conduct by the workforce while in *S'ólh Téméxw*.

Plans to provide substance and alcohol abuse prevention programs and counselling to non-local workers.

Details of a community relations orientation program, that would increase awareness about *S'ólh Téméxw* and cultural sensitivities for TMEP employees and contractors.

A Code of Conduct for employees and contractors that provides guidance and policies on appropriate and inappropriate worker behaviour and community interactions.

A disease awareness and prevention strategy, which includes:

- ◆ Health screening for all personnel,
- ◆ Health awareness training for workers including contagious disease and sexually transmitted infections.
- ◆ A personal health programme for workers including check-ups and immunisations, if required

Plan and schedule to meet with Stó:lō Nation Health and social services along with communities to discuss the timing of the TMEP, duration of the stay in S'ólh Téméxw, expected number of people coming into S'ólh Téméxw and onsite health care plans. These meetings will need to occur 6 months prior to construction.

A plan to continue communications with Stó:lō people as the TMEP progresses. Report outbreaks of notifiable infectious disease in camps to health authorities, as well as, Stó:lō Nation Health and Stó:lō communities.

A Traffic and Access Control Management Plan. Collaborate with Stó:lō representatives and contractors, 6 months prior to construction, regarding the Traffic and Access Control Management Plan and Traffic Control Plans for S'ólh Téméxw. For example, to ensure the heavy truck routes and access routes do not conflict with contractors', such as Ts'elxwéyeqw Tribe Management Limited and K & L Contracting, anticipated work schedules and travel routes. Continue to communicate with Stó:lō representatives as the TMEP progresses, on traffic changes and schedules, so they can inform Stó:lō people. (This will allow for Stó:lō people to plan ahead on their travel arrangements)

15.6.2 Mitigation Recommendations – Protective and Emergency Services

As described in the previous section the TMEP is predicted to have highly significant adverse impacts.

The following mitigation and enhance measures are recommended by Stó:lō representatives as a way to minimize or avoid negative impacts as a result of the TMEP.

As part of the protection and emergency mitigation measures the TMEP will file with the Stó:lō representatives and NEB, for approval, at least 6 months prior to commencing construction:

TMEP agreement via the British Columbia First Nations Policing Policy, to fund (for 5-years) one new First Nation Police position, in addition to the 7 existing officers in the First Nations Community Police Section.

A report summarizing the completed orientation/training for Stó:lō people and communities, on the TMEP's Emergency Response Plan (including site specific Emergency Response Plan), for S'ólh Téméxw. There should be a minimum of two Stó:lō people from each of the First Nations and no limitations on how many Stó:lō people can attend the orientation/training.

A report summarizing the completed orientation sessions with local protective services providers so that they are aware of the types of materials, chemicals and equipment that will be used during construction and operation of TMEP

A copy of the work environment guidelines and their enforcement mechanism, related to protection of public health issues listed in the ICA.

The on-site health and safety plan, which outlines how TMEP will provide appropriate levels of security and emergency medical technicians at worksites. This will reduce the diversion of protection and emergency services from Stó:lō people.

Maps and schedules of the proposed construction activities that were provided to Stó:lō communities.

15.6.3 Mitigation Recommendations – Education

As described in the previous section the TMEP is predicted to have moderately significant adverse impacts. The following mitigation and enhance measures are recommended by Stó:lō people as a way to minimize or avoid negative impacts as a result of the TMEP.

The TMEP will work with the Stó:lō representative to establish a scholarship program for Stó:lō students,

As mentioned previously, the employment skills training mitigation measures are included in the Economy Section of the ICA.

15.7 Residual Impact Assessment – Community Programs and Services/Social Development

As described in the previous section the TMEP is predicted to have highly significant impacts, with the combined impact being ranked as adverse. The mitigation recommendation section outlines actions that the TMEP can take to minimize or avoid the negative impacts.

TABLE 15-4: POST-MITIGATION SIGNIFICANCE RATINGS FOR COMMUNITY PROGRAMS AND SERVICES ACTIVITIES

Value	Health and Child and Family Services	Protective Services	Educational Services	Final Rating
Respect↓↓	M	NS	M	M
Pride↓↓	M	NS	M	M
Tradition ↓↓	M	-	M	M
Leadership ↓↓↓	-	NS	NS	NS

Value	Health and Child and Family Services	Protective Services	Educational Services	Final Rating
Responsibility ↓	M	NS	M	M
Cohesion/Bonding ↓	NS	-	-	NS
Connectedness/ Continuity↓↓	M	-	M	M
Self Determination ↓↓	M	NS	M	M
Self Representation↓↓	-	NS	M	M
Self Reliance↓↓	-	NS	M	M
Caring↓	NS	-	NS	NS

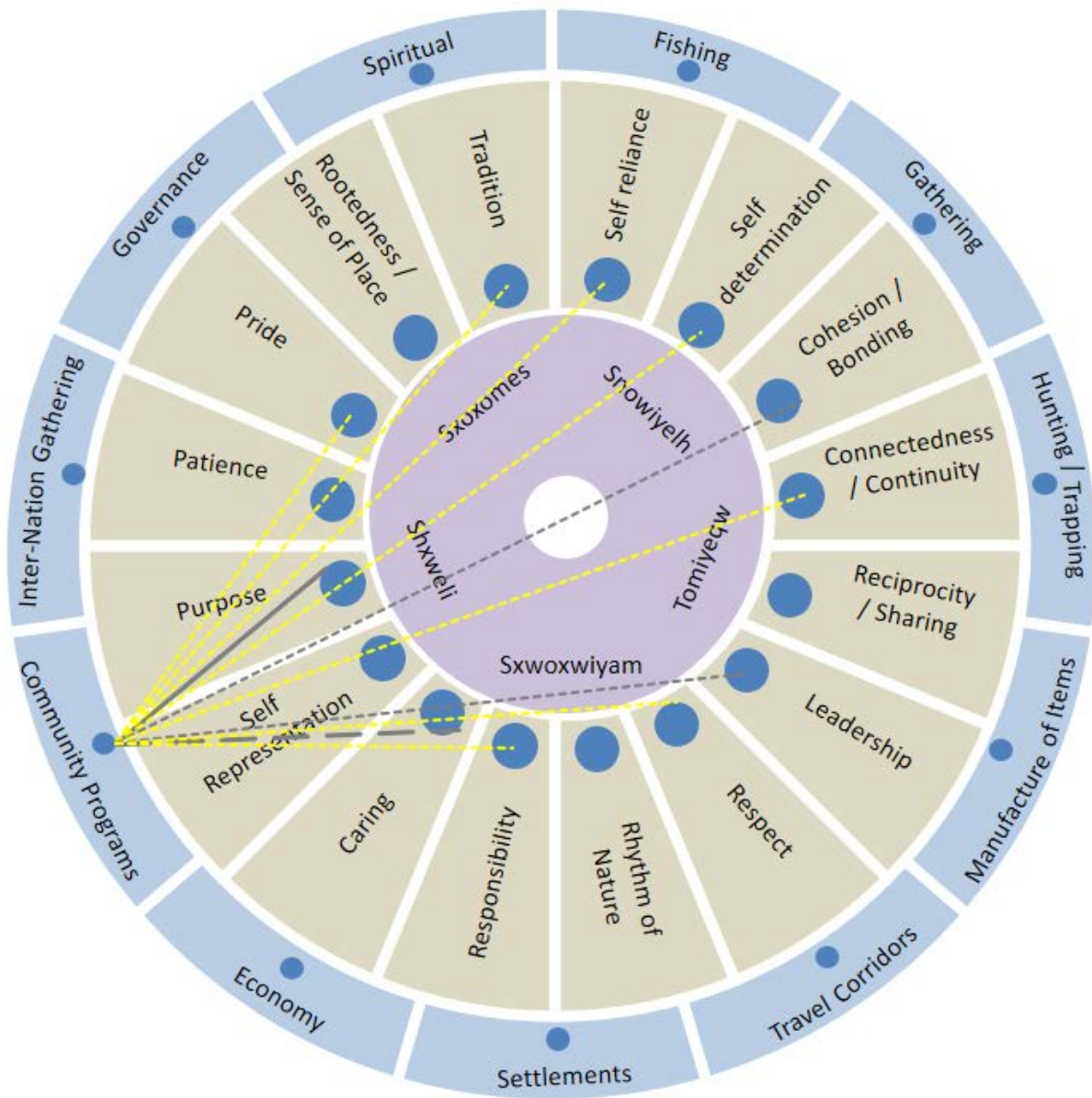
H = HIGHLY SIGNIFICANT EFFECT

M = MODERATELY SIGNIFICANT EFFECT

NS = NOT SIGNIFICANT

P = POSITIVE EFFECT

Figure 15-4 illustrates the TMEP impact to community programs and social services activities, after mitigation measures



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect / Not Significant Effect

FIGURE 15-4: RESIDUAL TMEP IMPACTS TO COMMUNITY PROGRAMS AND SERVICES

16.0 IMPACT SUMMARY

Stó:lō culture has been characterized as a highly interconnected set of activities, values and beliefs that amounts to a cultural system that is ‘finely balanced.’ The finely 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. Over time outside influences such as government policy, urban expansion and industrial development has affected Stó:lō culture.

The current well-being of Stó:lō community members is anchored to historical, cultural and traditional values. As such, the current state of the value linkages and the extent to which these values are expressed today set the foundation for the ICA and the impact rating criteria that was considered when evaluating potential impacts from the TMEP.

As illustrated in Table 16-1, the Stó:lō Cultural Model uses different line types to help illustrate the strength of linkages between cultural activities and values. Throughout the text, arrows were used to represent the strength of value linkages presented in the model. The ICA also applied different colours to help illustrate how these linkages may be affected by the TMEP. Table 16-2 summarizes the colour coding system.

TABLE 16-1: LEGEND FOR CULTURAL MODEL AND CULTURAL VALUE TABLES PRESENTED IN THE ICA








Legend	Line used on cultural model	Changes in contemporary Value linkages
Strong direct link between activity and cultural value		
Still common activity, but there are fewer places to carry out activity or fewer people carry out the activity, thus the extent to which the value is instilled is lessened		↓
Only very few people carry out activity or very few places to carry out this activity severely diminishing the opportunity to instil this value		↓↓

TABLE 16-2: ICA COLOUR LEGEND FOR CULTURAL MODEL AND CULTURAL VALUE TABLES

Colour Code	Line used on cultural model	Predicted Residual Impact Level
RED		Highly Significant Adverse Effect
YELLOW		Moderate Significant Adverse Effect
GREEN		Moderate or Highly Significant Positive Effect
GREY		Not significant Effect

The Project's conformance with Stó:lō views of cultural sustainability (i.e., satisfying the needs of present generations without compromising the ability of future generations to meet their own needs) was a key consideration in determining significance of the impacts on the environmental and socio-cultural aspects assessed in this ICA. An impact was considered significant if it weakened a cultural value linkage to the point that it compromised this objective. To assist in making the determination of significance, the level of importance of the impact and the likelihood of occurrence were considered, as shown in Table 16-3. A full description of the impact rating criteria is presented in Section 2.2 of the ICA.

TABLE 16-3: DETERMINATION OF SIGNIFICANCE

		Likelihood		
		Unlikely	Likely	Highly Likely
Importance	Low	No to Low Adverse Effect Not significant	Moderate significant adverse effect	Moderate significant adverse effect
	Medium	Moderate significant adverse effect	Moderate significant adverse effect	High Significant adverse effect
	High	Moderate significant adverse effect	High Significant adverse effect	High Significant adverse effect

Table 16-4, Figure 16-1, Table 16-5 and Figure 16-2 summarize the results of the ICA. Table 16-4 and Figure 16-1 presents the potential impact of the TMEP if the project were to be approved as presented in the TMEP Facility Application (Dec 2013). Table 16-5 and Figure 16-2 present the ICA results if the Stó:lō recommendations are accepted by the NEB (or Kinder Morgan) and made conditions of the CPCN. Stó:lō recommendations are summarized in Section 17.

TABLE 16-4: POTENTIAL TMEP IMPACT SUMMARY TABLE

	Fishing	Gathering	Spiritual	Manufacture of Cultural Items	Travel corridor	Settlement	Hunting and trapping	Govern- ance	Inter- Nation Gathering	Economic Activities	Community Programs / services
Respect	H	M	H	H	H	M	M	H	M	H	H
Pride	H	M	H	H	-	M	M	H	M	H	H
Tradition	H	M	H	H	H	M	M	H	M	-	H
Leadership	H	M	H	H	-	-	M	H	M	H	H
Rootedness/Sen se of place	H	M	H	H	H	M	M	-	-	-	-
Rhythm of nature	H	M	M	H	-	-	M	-	-	-	-
Patience	H	M	M	H	-	-	M	-	-	-	-
Cohesion/ Bonding	H	M	H	H	H	M	-	-	M	-	H
Connectedness/ Continuity	H	M	H	H	-	M	M	H	M	-	H
Self Determination	H	M	H	H	-	M	M	H	-	H	H
Self	H	-	H	H	-	M	-	H	M	H	H

	Fishing	Gathering	Spiritual	Manufacture of Cultural Items	Travel corridor	Settlement	Hunting and trapping	Govern- ance	Inter- Nation Gathering	Economic Activities	Community Programs / services
Representation											
Reciprocity/Shar ing	H	M	M	H	-	-	M	-	-	-	H
Self Reliance	H	M	M	H	H	M	M	H	M	H	-
Caring	H	M	M	-	-	-	M	-	M	-	H
Responsibility	H	M	H	-	-	M	M	H	M	H	H
Purpose	H	M	H	H	-	-	M	H	M	H	-

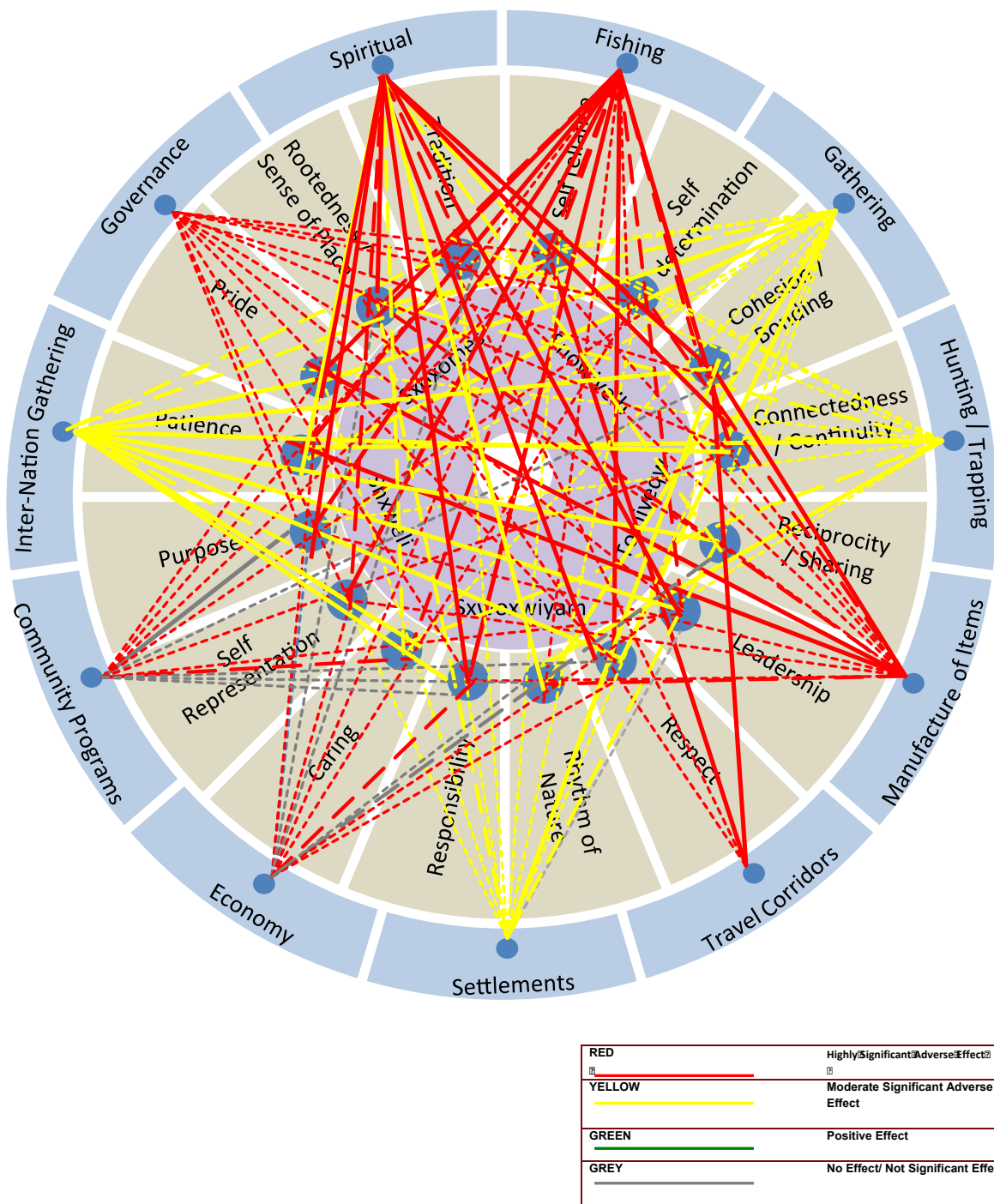
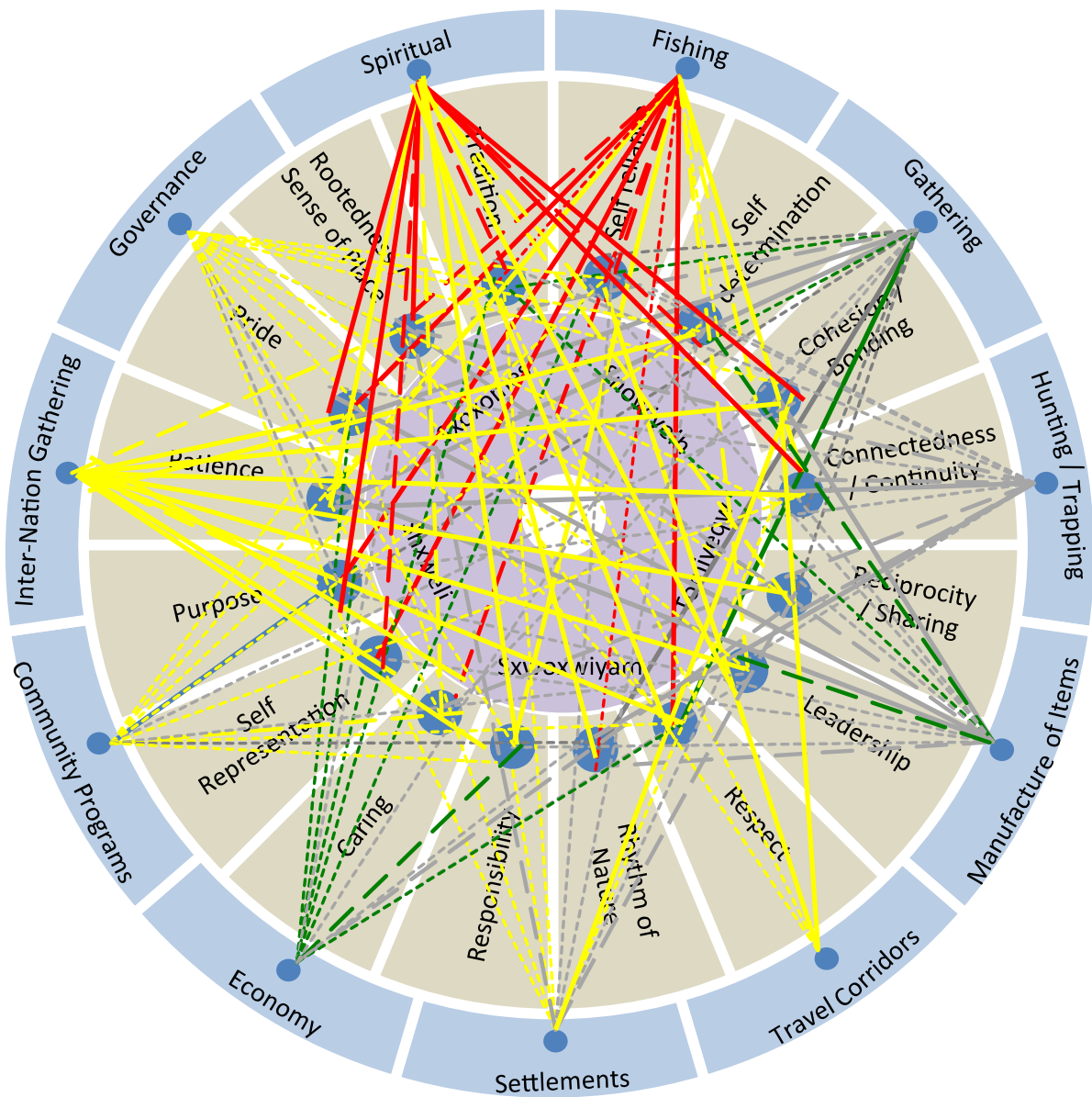


FIGURE 16-1: POTENTIAL CUMULATIVE EFFECTS OF THE TMEP ON STÓ:LŌ CULTURAL VALUES

TABLE 16-5: TMEP RESIDUAL IMPACT SUMMARY TABLE

	Fishing	Gathering	Spiritual	Manufacture of Cultural Items	Travel corridor	Settlement	Hunting and trapping	Governance	Inter- Nation Gathering	Economic Activities	Community Programs / services
Respect	H	P	M	P	M	M	NS	M	M	P	M
Pride	H	NS	H	NS	-	M	NS	M	M	P	M
Tradition	H	P	H	P	M	M	NS	M	M	-	M
Leadership	M	P	M	NS	-	-	NS	M	M	NS	NS
Rootedness/Sense of place	H	NS	H	NS	M	NS	NS	-	-	-	-
Rhythm of nature	H	NS	M	NS	-	-	NS	-	-	-	-
Patience	M	NS	M	NS	-	-	NS	-	-	-	-
Cohesion/ Bonding	M	NS	H	NS	M	M	-	-	M	-	NS
Connectedness/ Continuity	M	NS	H	NS	-	M	NS	M	M	-	M
Self Determination	M	P	H	P	-	NS	NS	M	-	P	M
Self Representation	M	-	H	NS	-	M	-	M	M	P	M
Reciprocity/Sharin g	H	NS	M	NS	-	-	NS	-	M	NS	M
Self Reliance	H	NS	M	NS	M	NS	NS	M	-	P	-
Caring	H	NS	M	-	-	-	NS	-	M	-	M

	Fishing	Gathering	Spiritual	Manufacture of Cultural Items	Travel corridor	Settlement	Hunting and trapping	Governance	Inter- Nation Gathering	Economic Activities	Community Programs / services
Responsibility	M	NS	M	-	-	M	NS	M	M	P	M
Purpose	H	NS	H	NS	-	-	NS	M	M	P	-



RED	Highly Significant Adverse Effect
YELLOW	Moderate Significant Adverse Effect
GREEN	Positive Effect
GREY	No Effect/ Not Significant Effect

FIGURE 16-2: RESIDUAL TMEP IMPACTS

16.1 CONCLUSION

Properly interpreting the findings of the ICA presented in the Tables 16-4 and 16-5 requires viewing the impact rating for each activity as inter-connected rather than independent of one another. Figures 16-1 and 16-2 aim to represent a totality of relationships between Stó:lō worldview, activities, and impacts of the TMEP, pre- and post-implementation of recommended management measures. Table 16-5 and Figure 16-2, together, represent the residual impacts of the TMEP on the Stó:lō. Significant post-mitigation adverse impacts remain in two critically important areas of Stó:lō culture – fishing and spiritual activities. As identified in the ICA Indicators Report (2013), fishing and spiritual practices are two of the most important remaining linkages for the Stó:lō to their unique culture and way of life as a people. The findings of this ICA indicate that the TMEP poses significant risk and represents a significant threat to the cultural integrity and survival of core relationships at the heart of Stó:lō worldview, identity, health, and well-being. The possibility of a major rupture of the proposed pipeline and significant contamination of the lower Fraser River Watershed cannot be entirely negated. As a result, construction of the TMEP as currently planned and assessed in this project would significantly jeopardize the survival of the unique indigenous lifeway of the Stó:lō, and unjustifiably infringe upon Stó:lō's aboriginal rights protected under section 35 of the Canadian Constitution.

17.0 RECOMMENDATIONS – MITIGATIONS

The previous sections present a list of mitigation measures and recommendations for TMEP to implement. The objective of the mitigation is to avoid or minimize TMEP adverse impacts and, where possible, enhance the positive effects. As illustrated in Section 16 - Impact Summary, the TMEP as it is presented in the TMEP Facility Application (Dec 2013) would have a significant adverse impact on the Stó:lō people. As mentioned previously, in the ICA, the term “Stó:lō representative” means an individual(s) who have been authorized by the eleven communities supporting the ICA to act on their behalf; specifically the communities of: Aitchelitz, Skowkale, Shxwhà:y, Soowahlie, Squiala, Tzeachten, Yakweawkwoose, Kwaw-kwaw-Apilt, Skwah, Cheam and Sumas. The ICA has developed a series of mitigation recommendations that, if implemented, would help reduce the overall impact of the TMEP on Stó:lō people within *S’ólh Téméxw*.

The mitigation recommendations are listed in each of the sections, and they are also compiled here into one section. In addition to the specific mitigations listed in each Section, there are also some general mitigations included here, which are overarching and therefore not included in the previous sections of the report.

17.1 General Recommendations

1. If the NEB recommends approval of the TMEP, Stó:lō people would require all of the mitigations listed here to be included in the Certificate of Public Convenience and Necessity (CPCN) issued by the NEB for the TMEP.
2. At least 90 days prior to commencing construction, TMEP will provide a detailed report to Stó:lō representatives describing:
 - a. The results of detailed routing and design studies including how cultural resources were identified, documented and protected in the field and who conducted this work
 - b. How TMEP has considered and addressed all issues identified in the ICA
 - c. Descriptions of mitigations that will be implemented to address potential Project effects
 - d. Descriptions of outstanding issues or concerns and the steps that TMEP will take to address them
3. At least 90 days prior to the start of construction, TMEP will provide copies of Construction Environmental Management Plans and Alignment sheets to Stó:lō representatives
4. A number of the mitigation measures recommend that TMEP submit a plan or program details to Stó:lō representatives for their review and approval (or disapproval and/or amendment) . The demand on time and resources for Stó:lō representatives to complete all of these reviews and approvals would be substantial, and therefore the following general mitigations is recommended:

- a. TMEP provide capacity support to Stó:lō representatives for the review and approval (or disapproval and/or amendment) of plans and programs. The exact nature of the capacity support will be finalized in discussions with Stó:lō representatives, but it could include support for Stó:lō staff/administration tasked with tracking progress of Canada's review of the TMEP for the 12 months leading up to the start of construction of the TMEP. If concerns are identified by Stó:lō representatives, *TransMountain* representatives will meet with Stó:lō representatives to discuss opportunities for changes.

17.2 Fisheries

17.2.1 Management and Planning

5. Stó:lō Fishing representatives will participate in the development and review of Fisheries Management Plans and water course crossing EPPs before construction and mitigation plans are finalized.
6. Stó:lō representatives will provide input on proposed locations for Hydrostatic test water withdrawal and release.
7. TMEP will consult with Stó:lō representatives to develop the Emergency Response Plans in the study area.
8. Stó:lō representatives will consult with community members to determine appropriate restoration plans for water crossings including bank armouring, seed mixes or replanting requirements.
9. Stó:lō fishing representatives must be notified if isolation methods will not work and TMEP is considering another crossing method.
10. Stó:lō representatives must be notified as soon as a spill or leak, of any size, is detected.
11. During water quality monitoring program, anything that fails to meet or exceed established guidelines will be reported to a Stó:lō Fisheries Representative within 12 hours.

17.2.2 Additional Studies

12. Stó:lō fishing representatives will participate in the development and review of additional research carried out as part of the TMEP within the lower Fraser Watershed. Further studies need to address information gaps including, for example: behavior of bitumen in fresh water and estuarine environments, seasonal variation of fish populations (spawning, fry movement), point source contamination inventory, water quality sampling feeding grounds, hydrological connectivity, and movement of fish populations as a result of changes in water quality (i.e. turbidity, dissolved oxygen, pH levels especially during seasonal variations).

17.2.3 Monitoring

13. Stó:lō representatives will monitor all water course crossings during construction. Pursuant to the Pipeline Environmental Pipeline Protection Plan (TMEP Facilities Application, Volume 6B, Table 7.2.3-2 continuous monitoring of turbidity and sediment release will occur:
 - a. at all flowing open cut crossings
 - b. at all isolated and partially isolated watercourse crossings
 - c. HDD crossings and mud releases
14. Stó:lō representatives will receive training on all aspects of the Pipeline EPP Water withdrawal and Discharge Procedures Management Plan
15. Stó:lō representatives will monitor all withdrawal and release of hydrostatic test waters
16. Stó:lō representatives will monitor all site restoration work at each water crossing following construction for a period of up to five years. Post construction monitoring will determine if additional seeding or replanting of riparian vegetation is necessary. Post construction monitoring will also identify locations with altered drainage patterns require remedial actions.
17. Stó:lō fishing representatives will be provided access to information, monitoring results and findings from any additional studies carried out for the TMEP related to fish, fish habitat, water quality, or any other related topic such as the behavior of dilbit in freshwater and marine ecosystems.

17.2.4 Training for Emergency Response

18. At least 1 year prior to commencing operations, Stó:lō organizations and individuals (for example, Stó:lō Nation Fish Management Board, SRRMC, Seven Generations, TTML community members/volunteers/local search and rescue/police department/fire department and volunteer fire departments) will receive training on all aspects of TMEP Spill Contingency Plans.
19. TMEP will fund annual training for Stó:lō organizations and individuals to
 - a. respond to all hydrocarbon spill scenarios in various seasons; including spills in mountainous regions during winter conditions, into ice covered watercourses and into watercourses under varying flow conditions
 - b. Emergency response exercises will include full-scale exercises, desk-top work, functional exercises and drills
 - c. At a minimum, there must be a full range of exercises as they relate to spill containment, clean up, massive rupture – containment and clean up, emergency responding, and any and all other exercises pertinent to emergence response.
 - d. Updates or amendments to TMEP emergency response plans

20. Emergency Response Preparedness staging areas will be at the following sites:

- a. Wahleach Pump Station
- b. Chilliwack/Vedder crossing

17.2.5 Off-sets

- 21. TMEP will fund fish habitat restoration and enhancement projects as determined by Stó:lō representatives, such as fish managers and scientists, biologist, and other technically qualified environmental scientists.
- 22. TMEP will fund improvements to access and infrastructure in support of fishing as determined by Stó:lō representatives

17.3 Gathering Plants and Forest Products

17.3.1 Additional studies

- 23. Stó:lō agree with the recommendations made in the TMEP Facilities Application related to the need for additional studies to confirm the effects assessment conclusions and gather site-specific information for the implementation of mitigation from the Project-specific EPPs. These studies must be completed for all areas not assessed during the EIA. A number of studies recommended by the TMEP Facilities Application will be carried out by Stó:lō personnel within S'ólh Téméxw prior to final project design. These include:
 - a. Detailed wetland surveys of Cheam Wetland, Hope Slough, Wahleach Slough, Aitchelitz/Luckakuck/Chilliwack Creek Wetlands, and the Vedder Canal
 - b. In the Hope to Burnaby segment 49 locations were identified for additional wetland survey in 2014 (Table 6.1-1) Supplemental field surveys planned for 2014. Stó:lō will review survey plans and participate in these surveys.
 - c. Centerline survey of native vegetation areas within the ICA study area to ground-truth predictions made in this ICA and identify project areas that may require special management (i.e. restricted clearing, slash treatments, access controls etc.)
- 24. The results of these studies will be reported to Stó:lō leadership and incorporated into Project planning, including the EPPs and the Environmental Alignment Sheets
- 25. The Wetland Evaluation Technical Report (TMEP Facility Application, Volume 5C) indicated that through a review of the stormwater requirements for the Sumas Terminal, it was determined that there will likely be an incremental increase in volume of stormwater discharge. Stormwater at the Sumas Terminal is discharged into a wet area to be a potential shrubby swamp associated with an ephemeral drainage. This area will be further evaluated in 2014. Stó:lō representatives will participate in this study.

17.3.2: Avoidance

26. The Wetland Evaluation Technical Report (TMEP Facility Application, Volume 5C, Table 5.2-2) states: "Aboriginal Monitors will be onsite through the construction of commissioning of the of the Project will work with environmental inspector to provide traditional knowledge to the construction program to ensure protection of the environment; to discuss upcoming traditional and western science elements with the environmental inspector to insure protection and monitoring; and to monitor mitigation success in protecting the environment." While it is agreed that Stó:lō representatives will be on-site during construction , Stó:lō will determine how knowledge is shared with environmental inspectors. To date the approach Kinder Morgan and their consultants have taken to consider and integrate traditional knowledge has been unacceptable and inappropriate
27. Should the TMEP be approved, Stó:lō representatives will undertake a centerline survey of native vegetation areas within the ICA study area to identify special management areas where Project clearing will be avoided. These areas will be marked prior to construction in the field and recorded on construction environmental alignment sheets in addition to the clearing/mowing restrictions associated with watercourse/wetland/lake boundary sensitive environmental features and buffer areas.
28. Further avoidances include:
- a. Reduce RW clearing width within OGMA's
 - b. Confine all pre-clearing/mowing and general clearing activities within the staked/flagged construction right-of-way boundaries.
 - c. Restrict root grubbing to the trench line, if feasible, to minimize surface disturbance and encourage resprouting/natural regeneration of deciduous trees and shrubs.
 - d. Conduct native seed collection for use in revegetation efforts at the site
 - e. Consider employing appropriate salvage, propagation and transplant techniques for culturally significant species.

17.3.3: Offsets

29. Prior to clearing any OGMA's Stó:lō will be given the opportunity to survey the area and determine if any cedar should be salvaged.
30. Habitat restoration and enhancement projects as determined by Stó:lō representatives.
31. Improvements to access and infrastructure in support of gathering as determined by Stó:lō representatives.
32. Clearing of Himalayan blackberry during construction in locations determined by Stó:lō representatives.

- 33. TMEP to fund the development and operation of businesses and or greenhouses that can be used to propagate native plants.
- 34. TMEP to facilitate new land designations to protect future Stó:lō harvesting activities as determined by Stó:lō representatives.

17.3.4 Weeds

- 35. Should the TMEP be approved, Stó:lō representatives will participate in the pre-construction weed survey to identify weed problem areas and make recommendations to control weeds at this site and/or limit their spread during construction.
- 36. Stó:lō prefer that no herbicides are used in *S'ólh Téméxw*. However, if herbicides are used for problem vegetation management along the construction right-of-way, TMEP will restrict the application of herbicide within 30 m of known traditional plant populations. Spot spraying, wicking, mowing or hand-picking are acceptable weed control measures in proximity to traditional harvesting areas should be discussed with Stó:lō prior to any applications in *S'ólh Téméxw*.
- 37. Prior to any herbicide application, TMEP will send notices to all Stó:lō Representatives informing them what treatment is required, where treatments will be, when treatments will occur and any other pertinent information. Notices will be send 30 days in advance of any herbicide treatment.

17.3.5 Monitoring

- 38. Stó:lō representatives will monitor the effectiveness of re-vegetation efforts at intervals over a 5 year period (e.g., years 1, 3 and 5 following completion of reclamation).
- 39. Vegetation post-construction monitoring (PCM) will identify any areas where remedial measures should be implemented to assist with the recovery of vegetation resources.
- 40. Stó:lō representatives will monitor OGMs to see if actual construction footprints vary from planned construction activities
- 41. Stó:lō representatives will monitor the topsoil and other soil piles for weed growth frequently during the growing season and will make recommendations related to proactive measures to control weed growth

17.4 Spiritual Activities

TMEP will undertake the following mitigations in collaboration with Stó:lō representatives:

- 42. Change the proposed TMEP alignment to avoid impacts to a number of cultural landscape features.
- 43. Remediate the landscape within *S'ólh Téméxw*, immediately in the response to a spill/leak.

44. Minimize visual, auditory, and other sensory impacts, particularly along access routes and proximity to cultural/spiritual use areas and sites
45. Recognize place names (project maps, signs, fencing)
46. Adhere to seasonal or time constraints for scheduling construction near spiritual sites
47. Notify Stó:lō representatives key project milestones
48. Place protective fencing around specific areas that can potentially be damaged
49. Put up signage to ensure that specific areas will not be entered by public or by construction crews.
50. Establish barriers to prohibit increased public and crew access to cultural areas, while maintaining Stó:lō access.
51. Refer to fishing section regarding for further recommendations regarding water, water quality, and protection of activities directly linked to the spirituality of Stó:lō community members and spiritual practitioners.
52. Implement mitigation measures to effectively avoid or minimize impacts on the economic processes (production, distribution, consumption, and reproduction) tied to activities supporting spiritual practices, e.g. fishing, hunting, gathering, manufacturing of cultural items etc.
53. Establish infrastructure and capacity for Stó:lō to implement on-going processes of air and water quality monitoring.
54. Establish infrastructure and capacity for Stó:lō heritage resource management technical involvement as construction monitors, to ensure protection of sites, and to ensure Stó:lō practices are maintained (as described below)
55. Integration of and support for Stó:lō spiritual work as may be required throughout the construction and operation processes (e.g. ground breaking ceremonies, purification ceremonies, offerings to ancestors etc.)
56. Establish infrastructure and capacity for Stó:lō to implement security related to monitoring access of spiritual and cultural sites, posting and maintaining signage, and preventing vandalism to sites, landmarks, and signage.
57. Implement Stó:lō training for emergency response in case spills in accordance with 17.2.4

When project design changes are not possible, potential offsets are not viable options in relationship to impacts on spiritual activities and sites.

Stó:lō spirituality is based on, embedded in, and dependent upon relationships with all of the activities included in the ICA. The scope and scale of potential impact to Stó:lō spiritual practices is a

compounding factor of potential impacts on each of the activities included in this study, cumulatively, in addition to those identified specifically for spiritual practices. The scope and scale of post-mitigation residual impacts on Stó:lō spiritual practices is also, then, a compounding factor of residual impacts on all activities in the ICA, necessarily viewed and understood cumulatively. Therefore, all of the recommendations provided in section 17 are relevant to the assessment and mitigation of adverse impacts on Stó:lō spiritual practices.

17.5 Manufacture of Cultural Items

Recommendations listed in Section 6.0: Gathering apply to this activity as well.

58. TMEP will fund cultural programs listed in Section 15; for example:

- a. Salish Weaving & Sewing classes - Weekly sessions throughout the year
- b. Cedar Bark Gathering - Seasonal session in the spring
- c. Traditional Herbs & Tea Gathering - seasonal session typically in the fall
- d. Cedar Weaving - twice a year in the spring and the fall

59. TMEP will fund cultural events listed in Section 13; for example:

- a. Cultus Lake Water Sports and War Canoes Races
- b. Seabird Island Annual Festival

17.6 Travel Corridors

60. The TMEP will file with the Stó:lō and NEB, for approval (or disapproval and/or amendment) , at least 6 months prior to commencing construction an Access Management Plan for *S'ólh Téméxw*, the plan will include:

- a. Maps of routes which are going to be used for transportation of workers and materials.
- b. Details of the strategy for providing bussing or some other form of worker transport management for construction workers, between the accommodation locations and the construction site.
- c. Traffic supervision plans during construction to identify any access routes that have higher than predicted traffic and/or delays and the adaptive management plan that TMEP will use to adjust access routes.
- d. Traffic safety education program for TMEP employees and contractors about acceptable driving behaviour in *S'ólh Téméxw*
- e. Schedules for the trucking of heavy loads to avoid peak traffic times and heavily-used intersections.

- f. Management plan to prohibit no-construction parking/staging areas along key access routes to Big houses, boat launches, trailheads near bathing sites.

17.7 Settlement

61. The TMEP will submit to Stó:lō and NEB for approval (or disapproval and/or amendment) the Worker Accommodation Strategy (TMEP Facility Application. Volume 6B, Application C, Section 8.4.4). The Worker Accommodation Strategy will include:

- a. A Plan for meeting with Stó:lō representatives and holding community meetings at least 6 months prior to arrival of construction teams in *S'ólh Téméxw* to inform Stó:lō people about construction activities, construction/work schedule, work force estimates, construction code of conduct, complaint procedure, potential safety issues, dates of future meetings, contact details of community liaison staff and construction hub locations.
- b. A plan to schedule construction activities so that there are no construction crews in Stó:lō communities that are holding key cultural events, as described in the Inter-nation Gatherings Section.
- c. A plan to ensure the temporary workers are not using rental housing in the study area and for monitoring short-term rental rates in the three hub communities and strategies to ensure any higher rental costs are not born by Stó:lō people.

17.8 Hunting and Trapping

See recommendations in the Gathering Section 6.0. In addition to these recommendations,

62. TMEP will fund Stó:lō representatives to carry out a pre-construction centerline survey of native vegetation areas within the ICA study area to identify project areas that may require special management for wildlife (i.e. gaps in overburden piles to facilitate wildlife passage, restricted clearing, alternate slash treatments for small mammal habitat, access controls etc.)

17.9 Governance

63. TMEP will implement the mitigation measures reference throughout the ICA, this would help address many of the concerns Stó:lō has about TMEP and would illustrate that TMEP understands and recognizes the importance of Stó:lō having a voice in developments taking place in *S'ólh Téméxw*.

64. TMEP will collaborate with Stó:lō representatives on how to engage in a process of dialogue that recognizes and respects Stó:lō governance structures. This would include:

- a. Respect for Stó:lō *snoweyelh* and policy included, for example, in the Stó:lō Heritage Policy and *S'ólh Téméxw* Use Plan;

- b. Recognize and respect Stó:lō worldview and potential impacts by addressing cumulative impacts and negative outstanding, historical effects and infringements of existing pipeline and right-of-way;
- c. Recognize, respect and participate in traditional decision making protocols and practices;
- d. Capacity support for the re-establishment of these protocols and practices within Stó:lō communities

17.10 Inter-Nation Gatherings

65. As part of the Work Accommodation Strategy (TMP Application. Vol. 6B, App C, Section 8.4.4) listed in the TMEP Application, the TMEP will:

- a. Work with Stó:lō representatives to identify the dates of key cultural and spiritual inter-nation gatherings, and schedule construction activities around those dates.
 - i. For example, the Project will plan the construction schedule so that construction workers are not using hotels in the Chilliwack area during the days that the Cultus Lake Water Sports and War Canoe Races are held. This would reduce the pressure on hotels during this inter-nation gathering.
- b. The TMEP construction schedule will be finalized 6 months prior to commencing construction and shared with Stó:lō representatives at that time. This would allow Stó:lō representatives enough time to share this information with their people prior to the inter-nation gatherings.

66. As part of the Access Control Management Plan (TMEP Facility Application. Volume 6B, Section 8.4.4, Appendix C) listed in the TMEP Application, the TMEP will:

- a. Provide bussing or some other form of worker transport management for construction workers, between the accommodation locations and the construction site.
- b. Schedule the trucking of heavy loads to avoid peak traffic times and heavily-used intersections
- c. Prohibit construction parking/staging areas along key access routes to Bighouses, boat launches, trailheads near bathing sites. Refer to Sections 9.0: Travel Corridors and Section 7.0: Spiritual Areas for more specific recommendations related to these features

17.11 Economic Activity

67. Three key mitigations that are referenced further below are based on a commitment by TMEP to:

- i. Have approximately 20% to 30% of their workforce in Hope, Chilliwack and Abbotsford be Stó:lō members; for both construction and operation phases or equivalent value in community investment or training. Note: this is 20% to 30% of

the overall workforce in the three hubs, not 20% to 30% of the 10% local hires that TMEP indicated.

- ii. Offer equity ownership option in the TMEP to Stó:lō First Nations, based on the value of the Project within *S'ólh Téméxw*, or the equivalent value in other financial opportunities.
- iii. Of the contracting and procurement opportunities for businesses in *S'ólh Téméxw*, approximately 20% to 30% of the total contracted amount would go to Stó:lō companies for both construction and operation or equivalent value in community investment or training.

17.11.1 Support Stó:lō Employment Skills and Business Capacity

68. In addition to the *TransMountain* Training Policy for Aboriginal People and the Aboriginal Procurement Policy, the TMEP must file with the Stó:lō and NEB, for approval (or disapproval and/or amendment) , at least 12 months prior to commencing construction, an Aboriginal skills and business capacity inventory in *S'ólh Téméxw* for the Project. The inventory will include:

- a. A summary of Stó:lō's worker skills and business capacity, including a definition of what qualifies as a Stó:lō business;
- b. An analysis of the ability of Stó:lō companies and workers to meet TMEP employment and business opportunities for the Project, both during construction and operation;
- c. A description of identified or potential skills and business capacity gaps between Stó:lō companies and workers capacity and the skills and services needed by TMEP.
- d. TMEP will describe specific measures to address the gap, through support or increase skills or capacity development (including details of timing of training programs, funding provided by TMEP, locations, etc.); and
- e. Plans for communicating with Stó:lō workers and companies regarding skills and business capacity, any identified gaps, and any proposed measures to support or increase skills or capacity.
- f. TMEP will file with Stó:lō representatives and NEB, at least 6 months prior to commencing construction, any updates on the above mitigations.

17.11.2 Monitoring Employment Skills and Business Capacity

69. TMEP will file with Stó:lō and NEB, for approval (or disapproval and/or amendment) , at least 3 months prior to commencing construction, a plan for monitoring Aboriginal, local, and regional employment for the Project. The plan will include:

- a. a description of, and rationale for selecting, the elements or indicators that will be monitored to track Aboriginal employment, including those specific to tracking progress

- toward meeting commitment of 20% to 30% per cent Aboriginal employment for the three hubs in *S'ólh Téméxw* (Hope, Chilliwack and Abbotsford);
- b. a description of, and rationale for selecting, the elements or indicators that will be monitored to track Stó:lō contracting and procurement for the Project, including those specific to tracking progress toward meeting commitment of 20% to 30% per cent procurement for Stó:lō businesses, or the three hubs in *S'ólh Téméxw* (Hope, Chilliwack and Abbotsford)
 - c. the monitoring methods and schedule, including information and data sources for the elements or indicators being monitored; and
 - d. plans for consulting and reporting on Aboriginal employment and contracting and procurement with Stó:lō.
70. TMEP will file with Stó:lō and NEB, within 3 months after commencing construction, and every 12 months thereafter through construction and during the operation of the Project, monitoring reports for Aboriginal employment and procurement for the Project within *S'ólh Téméxw*. The reports must include:
- a. a summary of the elements or indicators monitored;
 - b. a summary and analysis of Aboriginal employment and procurement during the reporting period, including:
 - c. progress made toward meeting TMEP commitment of 20% to 30% Stó:lō employment and 20% to 30% of procurement contracts for the three hubs in *S'ólh Téméxw*;
 - d. an explanation of why the targets for Stó:lō employment and procurement, if they are not met,
 - e. the proposed measures to address identified or potential gaps or barriers in meeting the targets; and
 - f. a summary of TMEP consultation with Stó:lō regarding employment and contracting for the reporting period. This summary must include any issues or concerns raised and how TMEP has addressed or responded to them.

17.11.3 Existing Stó:lō businesses

71. TMEP must file with the Stó:lō and NEB, within 6 months after commencing construction a plan on how the TMEP will work with Stó:lō businesses to ensure their existing business activities are not negatively impacted by the construction or operation of the TMEP. This will include:
- a. Details on TMEP contracting for services *S'ólh Téméxw*

- b. In collaboration with Stó:lō representatives , an analysis of any changes in service contracting costs for Stó:lō businesses and the influence that TMEP has on these changes.
- c. TMEP strategies for mitigating any effect they have.
- d. The plan will be updated every 6 months during construction and every 12 months thereafter through operations.

72. TMEP will file with the Stó:lō and NEB, within 3 months after commencing construction, and every 12 months thereafter through operations, a report, in collaboration with Stó:lō representatives, reports on Stó:lō economic activities such as forestry, fisheries, agriculture and tourism. The report will highlight:

- a. Updates on the TMEP and BC's budget for environmental emergency programs (annual spill prevention, compliance and management budgets). Explaining how TMEP is funding gaps between government spill response abilities under B.C.'s Environmental Emergency Program

73. Details on how TMEP will ensure that Stó:lō economic activities will be compensated should the Project be deemed responsible for any lost production, damage to equipment or remediation work required as a result of TMEP activities, a leak or a spill.

17.12 Community Programs and Services

17.12.1 Preventative Health Measures

Adverse impacts correlate, to some extent, with the number of non-local workers coming into *S'ólh Téméxw* to construct the TMEP. Hiring more local workers and in particular, more Stó:lō workers would help avoid or reduce some of the adverse impacts. As discussed in the Economy Section, Stó:lō representatives recommend that TMEP ensure 20% to 30% of their workforce in the Hope, Chilliwack and Abbotsford hubs are Stó:lō people.

In addition to hiring more Stó:lō workers, the TMEP will file with the Stó:lō representatives and NEB, for approval (or disapproval and/or amendment) , at least 6 months prior to commencing construction the following:

74. A Complaints Registration Plan. This will establish a process by which Stó:lō people can raise complaints or concerns related to TMEP activities or workers. This process will deal with all complaints, such as, concerns about behaviour of TMEP construction workers, while on or off duty. Ensure this process includes protocols for timely follow-up by Trans Mountain and/or its Contractors and transparent issue resolution, and communicate this process to Stó:lō communities.

75. An alcohol and substance abuse policy. This policy will be specific to *S'ólh Téméxw* and would ensure all necessary measures are taken so the construction workforce is drug and alcohol free.

The alcohol and substance abuse policy will apply to workers while they are in *S'ólh Téméxw*, where they are on or off duty. It is imperative there is security and enforcement of policies related to substance and alcohol use and personal conduct by the workforce while in *S'ólh Téméxw*.

76. Plans to provide substance and alcohol abuse prevention programs and counselling to non-local workers.
77. Details of a community relations orientation program, that would increase awareness about *S'ólh Téméxw* and cultural sensitivities for TMEP employees and contractors.
78. A Code of Conduct for employees and contractors that provides guidance and policies on appropriate and inappropriate worker behaviour and community interactions.
79. A disease awareness and prevention strategy, which includes:
 - a. Health screening for all personnel,
 - b. Health awareness training for workers including contagious disease and sexually transmitted infections.
 - c. A personal health program for workers including check-ups and immunizations, if required
80. Plan and schedule to meet with Stó:lō Nation Health and social services along with communities to discuss the timing of the TMEP, duration of the stay in *S'ólh Téméxw*, expected number of people coming into *S'ólh Téméxw* and onsite health care plans. These meetings will need to occur 6 months prior to construction.
81. A plan to continue communication with Stó:lō people as the TMEP progresses. Report outbreaks of notifiable infectious disease in camps to health authorities, as well as, Stó:lō Nation Health and Stó:lō communities.
82. A Traffic and Access Control Management Plan. Collaborate with Stó:lō representatives and contractors, 6 months prior to construction, regarding the Traffic and Access Control Management Plan and Traffic Control Plans for *S'ólh Téméxw*. For example, to ensure the heavy truck routes and access routes do no conflict with contractors', such as Ts'elxwéyeqw Tribe Management Limited and K & L Contracting, anticipated work schedules and travel routes. Continue to communicate with Stó:lō representatives as the TMEP progresses, on traffic changes and schedules, so they can inform Stó:lō people. (This will allow for Stó:lō people to plan ahead on their travel arrangements)

17.12.2 Protective and Emergency Services

As part of the protection and emergency mitigation measures the TMEP will file with the Stó:lō representatives and NEB, for approval (or disapproval and/or amendment) , at least 6 months prior to commencing construction:

- 83. TMEP agreement via the British Columbia First Nations Policing Policy, to fund (for 5-years) one new First Nation Police position, in addition to the 7 existing officers in the First Nations Community Police Section.
- 84. A report summarizing the completed orientation/training for Stó:lō people and communities, on the TMEP's Emergency Response Plan (including site specific Emergency Response Plan), for *S'ólh Téméxw*. There should be a minimum of two Stó:lō people from each First Nations and no limitation on how many Stó:lō people can attend the orientation/training.
- 85. A report summarizing the completed orientation sessions with local protective services providers so that they are aware of the types of materials, chemicals, and equipment that will be used during construction and operation of TMEP
- 86. A copy of the work environment guidelines and their enforcement mechanism, related to protection of public health issues listed in the ICA.
- 87. The on-site health and safety plan, which outlines how TMEP will provide appropriate levels of security and emergency medical technicians at worksites. This will reduce the diversion of protection and emergency services from Stó:lō people.
- 88. Maps and schedules of the proposed construction activities that were provided to Stó:lō communities.

17.12.3 Education

- 89. The TMEP will work with a Stó:lō representative to establish a scholarship program for Stó:lō students.

As mentioned previously, the employment skills training mitigation measures are included in the Economy Section of the ICA.

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