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Natural Resource Consultants

**Ta'an Salmon Information
Gathering/Workshop
Summary Report
CRE-93N-04**

Prepared for:

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March 2005

EDI Project No.: 04-YC-0015

ABSTRACT

A compilation of salmon and fisheries information was conducted for the Ta'an Kwach'an Traditional Territory. A Ta'an Kwach'an Council (TKC) member (Lori Graham) conducted background research on Traditional Knowledge and historical information with regard to salmon in the TKC. Information was then compiled and discussed with TKC Lands and Resources staff and TKC elders in two community workshops. The workshops facilitated community review and input on the compiled information, as well as further Traditional and Local Knowledge regarding fisheries within the TKC Traditional Territory.

ACKNOWLEDGEMENTS

Funding for this project was provided by the Yukon River Panel Restoration and Enhancement Fund. Technical review and assistance to the project was provided by Al von Finster with Fisheries and Oceans Canada. Geraldine Pope, Ta'an Kwach'an Manager of Lands and Resources, provided general project direction and logistical assistance. Lori Graham, Researcher with the Ta'an Kwach'an, conducted background research on Traditional Knowledge of fisheries, and assisted with coordination of the technical and community workshops. A number of individuals from various agencies and organizations made presentations and provided input to the workshops. These included: Carl Sydney—Yukon River Panel & the Yukon Salmon Committee, Patrick Milligan—Fisheries and Oceans Canada, Al von Finster—Fisheries and Oceans Canada, Gillian McKee—Kwanlin Dun First Nation, Lyle Dinn—Yukon Government, Forest Planning and Development, Panya Lipovsky—Yukon Geological Survey, Grant Abbott—Yukon Geological Survey, Rick Janowicz—Yukon Water Resources, and Ross Burnet—City of Whitehorse.

DISCLAIMER

The information presented in this report is designed to act as a summary of existing salmon information in the Ta'an Kwach'an Traditional Territory. Sources of information include documented Traditional Knowledge, scientific/technical documentation, as well as personal communications and experience. It should be understood that some information presented is based upon interpretations of such sources. It is therefore recommended that users interested in specific data present in this report consult the original source of information to verify the context and substance of specific details.

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1.0 INTRODUCTION

Salmon, particularly chinook (*Oncorhynchus tshawytscha*), are of considerable importance and interest to the Ta'an Kwach'an Council (TKC). Salmon have been harvested by the Ta'an Kwach'an for countless generations, and play an integral cultural role for the First Nation. This relationship with the salmon has continued and evolved since the pre-colonial era.

The objectives of this project are the following:

1. To compile salmon information and determine salmon management priorities within the Ta'an Kwach'an Traditional Territory.
2. To build capacity, provide training, promote stewardship and create employment opportunities in the Ta'an Kwach'an Traditional Territory.
3. To generate salmon interest within the Ta'an Kwach'an community.
4. To develop ideas and direction for future projects.

This project seeks to obtain a more detailed understanding of known salmon distributions within the entire Ta'an Kwach'an Traditional Territory by seeking out such information from documented and Traditional Knowledge sources and compiling it in a single document. A further goal is to generate an internal discussion within the TKC with a view to setting the future direction of salmon management projects and activities.

The TKC Traditional Territory is located in the upper Yukon River watershed, roughly centred around Lake Laberge. It extends south to Marsh Lake, east to the South Big Salmon River, north to Clair Lake, west to the Nordenskiold and Little Rivers. The Traditional Territory includes the City of Whitehorse and has a majority overlap with the Kwanlin Dun Traditional Territory. Some overlap also exists with the Traditional Territories of the Champagne and Aishihik, Carcross Tagish, Little Salmon Carmacks First Nations, as well as that of the Teslin Tlingit Council. Portions of the Teslin, South Big Salmon, Nordenskiold, Takhini, and upper Yukon River watersheds are included within the Traditional Territory.

2.0 METHODS

To achieve the objectives of this project, a local researcher was hired to gather previously documented and undocumented Traditional Knowledge about the fisheries resource within the TKC Traditional Territory. This included sources of Oral History and other heritage resources documented mainly by the TKC, but also some from government and consultant sources. Subsequently, two workshops were held, which involved the sharing of information related to salmon stocks, habitat, and their management with and among community members and TKC Lands and Resources staff. These forums allowed for community members to provide further knowledge and to generate discussion while identifying salmon related priorities for the TKC. Following the workshops, data gathered in these exercises was compiled, mapped, and summarized in this report. The process through which the project was undertaken is further detailed in the following steps.

2.1 Information Gathering and Analysis

The TKC researcher initiated the data collection process, which took place over a period of twelve days. Information related to salmon distribution and fisheries issues within the TKC Traditional Territory was collected and compiled. Sources of information collected in this exercise included TKC Elder's Oral History Interviews, heritage, cultural history, and place names work conducted by or for the TKC, heritage and historical work conducted for the Yukon Government, and individual discussions with TKC elders. The report prepared by TKC researcher Lori Graham in this regard is presented in Appendix B.

2.2 Workshops

On September 9th and 11th, 2004, two workshops were held. First, a technical workshop with the TKC Lands and Resources staff was held at the Council of Yukon First Nations office in Whitehorse. This was followed by a community/elders workshop held at Helen's Fish Camp, a TKC facility at Lake Laberge.

The technical workshop was facilitated by Patrick Tobler, of *Environmental Dynamics*, and involved a number of salmon stock/habitat management and technical presentations by representatives from various agencies and organisations. As well, participants conducted a general discussion of salmon related issues and knowledge in the TKC Traditional Territory (see Figure 2). Representatives from Fisheries and Oceans Canada, the Yukon Geological Survey, Yukon Water Resources, Yukon Forest Management Branch, the City of Whitehorse, the Yukon River Panel, the Yukon Salmon Committee, the Kwanlin Dun First Nation, and the Yukon Conservation Society provided a variety of input in regard to salmon management in the Yukon. For a complete participant list, see Appendix A.



Figure 2. Technical Workshop at the Council of Yukon First Nations

The elders/community workshop involved an overview of salmon management in the TKC Traditional Territory, facilitated by Patrick Tobler of *Environmental Dynamics*. As well, participants conducted a general discussion of salmon related issues and knowledge in the TKC Traditional Territory. (see Figure 3). Representatives from Fisheries and Oceans Canada, the Yukon River Panel, the Yukon Salmon Committee, and the Yukon River Intertribal Watershed Council provided a variety of information and input in regard to salmon management in the Yukon. Staff of the TKC Lands and Resources Department, as well as a number of TKC elders also participated. For a complete list of participants, see Appendix A.



Figure 3. Elders/Community Workshop at Helen's Fish Camp

The theme and structure of the workshops placed emphasis on encouraging further involvement of the TKC in the salmon management process within the Yukon. Considerable interest was expressed by participants not only in becoming more involved in such management, but also in seeing further salmon related projects undertaken at the local level. Several possible project ideas were enthusiastically discussed.

As well, a particularly successful component of the workshops was a thorough discussion of local and Traditional Knowledge with regard to salmon in the TKC Traditional Territory. Participants shared their knowledge and experiences, which was recorded for reference in this report. Workshop participants were informed at the time that all information provided by them during the workshop could be documented in this report, thereby becoming public information. Information from the workshops is cited in this report as “Salmon Workshops, 2004.”

2.3 Reporting/Data Compilation

All relevant documented salmon related information found during the compilation of this report was summarized by *Environmental Dynamics* biologists and put into table format including Traditional Knowledge of fish in the TKC Traditional Territory, salmon spawning locations, and chinook salmon rearing habitats (see Tables 1, 2, & 3).

2.4 Digital Mapping

Digital mapping was performed by *Environmental Dynamics* staff using MapInfo. Maps include all salmon related information gathered, as well as key information from Traditional Knowledge regarding freshwater fish. All mapped Traditional Knowledge is referenced with codes corresponding to the source of the information, which is summarized in Table 1 and Section 3.3.1.

3.0 RESULTS/DISCUSSION

Project results are presented in three different summaries; one detailing results of the background research, one detailing results of the technical workshop, and one detailing results of the Elders/community workshop.

3.1 Summary of Fisheries Information

The following sub-sections detail background fisheries information gathered from Traditional/Local Knowledge sources, as well as relevant technical/scientific research. The scientific/technical information utilized is focussed around the extent of adult chinook salmon distribution and spawning areas, as well as further areas of juvenile chinook habitat utilization extending beyond areas of adult distribution. Information from all sources regarding chum salmon is also detailed.

3.1.1 Ta'an Kwach'an Traditional/Local Knowledge

Traditional and Local knowledge was collected from previously documented sources as well as individual TKC members regarding salmon and historical locations of fish camps and/or fishing locations. All such information relating to salmon is summarized in Table 1. Locations associated with each fish camp or fishing site are mapped in Figure 4. The Map Codes detailed in Table 1 correspond accordingly with the map locations in Figure 4. Information of note related to fishing methods and traditional locations for the harvest of freshwater fish species was also located and documented.

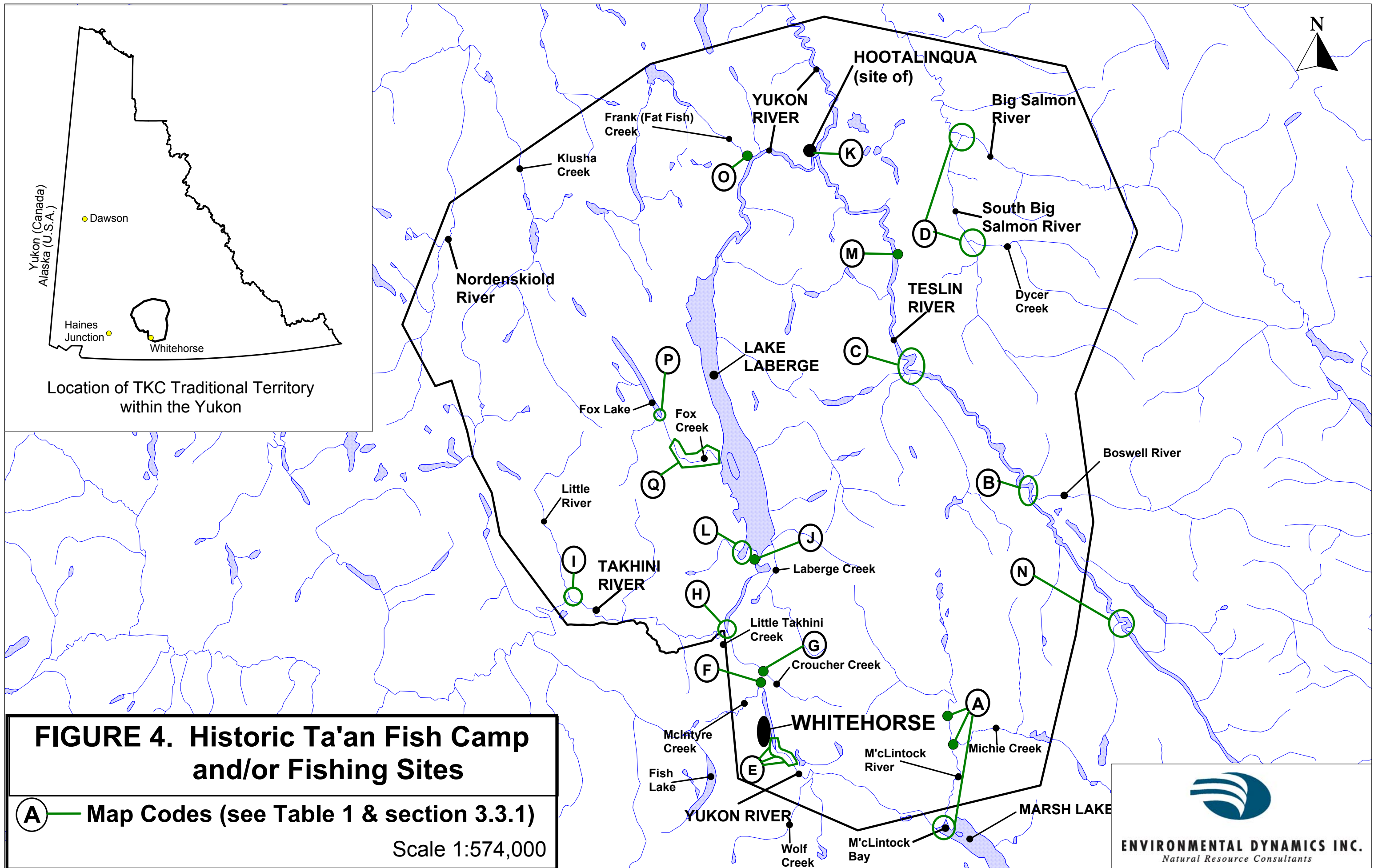
Table 1. Summary of Salmon Information (T.K.)

Map Code	Location	Source	Details
A	McClintock River (Gyü chüa – King Salmon Creek)	Johnson, 1989	A traditional fish camp was located at the confluence of the McClintock River and Michie Creek, where chinook salmon were gaffed and prepared for winter. To the north of Michie Creek, just below the falls, an additional fish camp was located where chinook salmon and grayling were harvested by gaff and net during mid July and August.
B	Teslin River at Roaring Bull Rapids	Johnson, 1989	A fishing camp was located at the confluence of the Boswell and Teslin Rivers. (As mapped by FISS, 2003) and chinook salmon were harvested by gaff and prepared for winter, as well as grayling, fished just below the rapids.
C	Teslin River at Winter Crossing or Teslin Crossing	Elder Frances Woolsey; July, 2004	Fishnets were set at Winter Crossing and a camp situated approximately four miles north of Winter Crossing, for chinook salmon.
D	South Big Salmon River	Johnson, 1989 TKC Oral History Project, 2003	Salmon were gaffed from the south fork of the Big Salmon River. There may have been fish camps situated at the confluence of the South Big Salmon River and Mendocina (Dycer) Creek.
E	Whitehorse (Kwanlin – running water through canyon)	Johnson, 1989 TKC Oral History Project, 2003	A salmon fishing site was located on the southern side of the Yukon River at Whitehorse Rapids' where Whitehorse Hydro Dam is now situated. Traditional use of this area was continued by the Billy Lebarge family until the construction of the dam.

Table continued...

Table 1 continued... Summary of Salmon Information (T.K.).

Map Code	Location	Source	Details
E	Whitehorse (Kwanlin – running water through canyon)	Midnight Arts North Words Consulting, 1998	The area from the current Whitehorse dam location and up to miles canyon was used on both sides of the river for gaffing salmon. Gaffing was the method of harvest used until the introduction of trade with Alaskan F.N.'s, which introduced the presence of gill nets. Once introduced, the gill-net technology was copied and maintained using locally available materials, such as sinew.
E	Whitehorse (Kwanlin – running water through canyon)	TKC Oral History Project, 2003 Violet Storer, Archival interview 17 March, 1998	Gillnets [salmon] were set where the Robert Campbell Bridge is now situated as well as directly across the river from this area. The site where the S.S. Klondike is now situated was a permanent fishing camp used by the Billy Lebarge family.
F	Whitehorse (Kwanlin – running water through canyon)	Johnson, 1989 Midnight Arts North Words Consulting 1998.	Traditionally, TKC people camped and fished at the confluence of the Yukon River and McIntyre Creek. The Southern Tutchone place name for this area is Dāmāwtān, meaning High Bank (cliff), where salmon as well as grayling and whitefish could be harvested.
G	Whitehorse (Kwanlin – running water through canyon)		Atsua Ku (Grandma's camp) or Cluett wood camp is situated at the Yukon River at Croucher creek. Traditionally this site was maintained as a fish camp [salmon], then as a wood camp and is currently established as a small traditional camp for tourists operated by the MacCannell family.
H	Takhini River	TKC Elders, Place names meeting, 1998	Makhū Chū Dashè fish camp [salmon] is located at the confluence of the Yukon and Takhini Rivers.
I	Takhini River	Gotthardt, 1989	A small village and fish camp (Lür dayël – dust starts to blow around; also known as 31 mile post) was located along the Takhini River near the mouth of Little River and was a principle salmon fishing camp. Stone tool chips were excavated and dated to be between five and eight thousand years old. This village was inhabited up until the 'Takhini Burn' in the mid 50's.
J	Yukon River at Upper Laberge Village or Police Post (Chu dā shay – mouth of river)	Johnson, 1989	Chinook salmon and chum (dogfish) were netted from near this site commercially by the Ta'an people for sustenance and to supply the Cluett Fox farm near Whitehorse as well as the steamships.
K	Yukon River at Hootalinqua	Sophie Miller, 2004	Hootalinqua was an important trading and meeting place where salmon were harvested during summer months.



Documented fishing methods included use of gaff hooks, gillnets, fish traps, and a unique method of capturing whitefish near the mouth of Horse Creek in Shallow Bay. Gaff hooks were used at a variety of locations throughout the Traditional Territory as a primary method of catching salmon. Gillnets were also used extensively for the harvest of salmon, however, information provided indicates that this was a later occurrence with the introduction of nets through trade with First Nations from Alaska. Following this technological introduction, nets were also manufactured locally. Prior to the introduction of gillnets, gaffing was the primary method utilized by the Ta'an Kwach'an for capturing salmon. The use of fish traps for capturing arctic grayling on Frank Creek (also called Fat Fish Creek) was also documented, however the type of trap was not specified. In Shallow Bay (southern end of Lake Laberge), near the mouth of Horse Creek, whitefish were captured in the fall using large willows bundled into a huge "log." This "log" was subsequently rolled through the shallow water towards the shore. In the process, whitefish were knocked out or otherwise disabled in the process (likely driven into extremely shallow water at the shore) and were subsequently collected. Further details were not provided, however this fishing method is likely unique to the location, and the Ta'an people.

Using, traps, or the bundled willow "log" described above, freshwater fish were captured in the following locations:

- Grayling, just below the falls on the McClintock River (upstream of Michie Creek) (see **Map Code A** in Figure 4).
- Grayling, just below the Roaring Bull rapids on the Teslin River (see **Map Code B** in Figure 4).
- Grayling and whitefish, at the confluence of the Yukon River and McIntyre Creek (see **Map Code F** in Figure 4).
- Whitefish, Shallow Bay (Lake Laberge) at the mouth of Horse Creek (see **Map Code L** in Figure 4).
- Grayling, at Frank Creek (also called Fat Fish Creek) (see **Map Code O** in Figure 4).

As well, the following locations of fish camps or fishing activities were documented, however, the species of fish targeted was not specified. Due to currently available information regarding the habitat characteristics of these locations, it is suspected that freshwater species were principally targeted.

- Fish Camps on Fox Creek (see **Map Code Q** in Figure 4).
- Fish Camp at southern end of Fox Lake (see **Map Code P** in Figure 4).
- Fish Lake.

3.1.2 Salmon Information from Previously Documented Scientific/Technical Sources

Information from a variety of scientific/technical sources relating to the TKC Traditional Territory is of further value.

3.1.2.1 Extent of Adult Chinook Utilization

Adult chinook salmon stream utilization is spread throughout much of the Ta'an Kwach'an Traditional Territory. For descriptive purposes, this distribution of adult chinook can be separated into three main watershed areas. These are the southern Yukon River, the Teslin River, and the South Big Salmon River.

Adult chinook utilization in the southern Yukon River area includes the Yukon River mainstem (and Lake Laberge) up to Marsh Lake, as well as portions of McIntyre and Wolf Creeks, and the portion of the Takhini River within Ta'an Traditional Territory boundaries. A portion of Flat Creek, a small tributary to the Takhini within this area, is also utilized by adult chinook. Further, adult chinook are found returning to the McClintock River and its tributary Michie Creek, which drain into the Yukon River outlet at the northern end of Marsh Lake. The Yukon River mainstem contains some areas of spawning destinations,

while serving as a migratory route for chinook salmon travelling to destinations in the tributaries mentioned above (see Table 2). However, radio telemetry surveys conducted in 2003 indicate that the Takhini River is likely the most important (in terms of population) spawning destination for chinook salmon in the southern Yukon River. However, most of these destinations are upstream of the TKC Traditional Territory. As indicated in Table 1, extensive fish camps and chinook harvest locations were located in the Whitehorse area (Johnson, 1989, TKC Oral History Project, 2003, Midnight Arts, 1998, Violet Storer, Archival interview March 17, 1998). This indicates that historically, stocks migrating up the Yukon River above the Takhini River may have been considerably larger than current returns. Further evidence of this was recorded by George Dawson in 1887, when he wrote about the stretch of river between Miles Canyon & Marsh Lake: “Large numbers of salmon were found dead or dying along the banks for a few miles above the canyon, and the grass along the shores was trodden down by bears attracted here by this circumstance.”

The Teslin River drains Teslin Lake, and flows south to join the Yukon River approximately 30 km (as the crow flies) downstream of Lake Laberge. Adult chinook utilize the entire Teslin River within the Ta'an Traditional Territory, plus as a portion of the Boswell River, a small tributary stream approximately 75 km (as the crow flies) upstream from the Yukon River (see Table 2). The Teslin mainstem is one of the most important spawning destinations and migratory routes (in terms of population sizes) for Yukon River chinook salmon in Canada (Osborne et al, 2003, Mercer & Eiler, 2004).

The South Big Salmon River is a tributary of the Big Salmon River, which joins the Yukon River downstream of the Ta'an Traditional Territory. Adult chinook utilize the majority of the South Big Salmon River, however returns are considered minimal compared with historical accounts. Results of chinook radio telemetry surveys conducted in 2002 and 2003 over the entire Big Salmon watershed indicated that numbers of chinook returning to the South Big Salmon are low (Osborne et al, 2003, Mercer & Eiler, 2004). As indicated in Table 1, important historic locations for the harvest of chinook were located on the South Big Salmon River, indicating that this has not always been the case (Johnson, 1989 & TKC Oral History Project, 2003). This watershed has been subject to past and present placer mining activities.

Chinook salmon spawn in areas within the Nordenskiold River. A portion of the Nordenskiold passes through the northwest corner of the TKC Traditional Territory. However, currently most documented chinook spawning takes place downstream of this part of the river. Historically, spawning destinations further upstream may have been more heavily utilized, however, it appears that currently this is not the case (Pumphrey, 1999, Osborne et al, 2003, Mercer & Eiler, 2004). As well, a large portion of the Klusha Creek watershed, a tributary to the Nordenskiold, is within the TKC Traditional Territory. Klusha Creek also contained historic chinook spawning destinations, which according to Traditional Knowledge, extended at least as far upstream as the outlet of Braeburn Lake (Pumphrey, 1999, Otto, 1998). In recent years, the removal of beaver dams in the creek has resulted in the return of spawning chinook to areas downstream of the TKC Traditional Territory (von Finster, 2001). However, water levels in 2003 and 2004 were very low, and therefore restoration works on the stream are no longer considered viable (von Finster 2003 & 2004).

Table 2 summarizes most known chinook spawning locations within the TKC Traditional Territory. It should be noted that while this summary is of documented spawning locations, it should not be interpreted as including all such locations.

Table 2. Known Chinook Spawning Destinations within the TKC Traditional Territory
Southern Yukon River South Mainstem Watershed

Stream	Location	Comments	Source
Yukon River Mainstem (30 Mile River)	Suspected spawning below Lake Laberge.	Between Lake Laberge and the mouth of the Teslin River, historic spawning locations are suspected. However, this stretch of river underwent extensive dredging during the era of paddlewheel transportation. Contemporary spawning locations have not been identified, however results of chinook telemetry surveys conducted in 2002 and 2003 suggest that some spawning may occur near the outlet of Lake Laberge and approximately 15 km further downstream. In 2004, 25 adults chinook were observed at the outlet of Lake Laberge.	Mercer & Eiler, 2004 Osborne et al, 2003 Salmon Workshop, 2004.
Flat Creek (Tributary to Takhini River)	Lower 400m of stream.	Spawning documented	Zurachenko & Finnsen, 1998
McIntyre Creek	Lower 2 km of stream.	Spawning documented	Beniston & Lister, 1991
Yukon River Mainstem	Spawning location near Whitehorse, between the mouth of McIntyre Creek and the Whitehorse Dam	Spawning documented	Gartner Lee, 2004
Yukon River Mainstem	Just downstream of the Wolf Creek Outlet.	Spawning documented	Mathews, 1998
Wolf Creek	Lower few kilometres.	Upstream extent of adult utilization uncertain, are known as far upstream as the Whitehorse Copper mine site (approx. 8 km). A fish passageway through the culvert is maintained yearly to facilitate this upstream migration.	von Finster pers comm., 2005 Gartner Lee, 2004
Cowley Creek	Currently in lower reaches, below obstructions posed by beaver dams.	Historically, chinook are thought to have spawned throughout Cowley Creek, however they have currently been documented only in the lower reaches, below beaver dams that constitute barriers to the passage of adults.	Gartner Lee, 2004 von Finster, pers. comm., 2005
McClintock River	Upstream to falls/obstruction above Michie Creek.	Chinook spawning destinations are located near the mouth of Michie Creek and upstream of this point.	Mathews, 1998
Michie Creek (Tributary to McClintock River)	From mouth to outlet of Michie Lake.	Spawning locations throughout this portion of the stream, however, area of most intensive spawning activity is within 3 km of the Michie Lake outlet.	de Graff. 2004.

Table Continued...

Table 2 continued... Known Chinook Spawning Destinations within the TKC Traditional Territory continued.

Southern Yukon River Watershed			
Stream	Location	Comments	Source
Teslin River Watershed			
Teslin River Mainstem	From confluence with the Yukon River upstream beyond boundary of TKC Traditional Territory (approximately 95 km upstream from the Yukon River, as the crow flies).	Spawning locations throughout Teslin Mainstem, with very large concentrations between the Boswell and Swift Rivers.	Mercer & Eiler, 2004
Boswell River	Lower few kilometres, below falls near mouth.	Spawning Documented.	Tobler, 2003
South Big Salmon River Watershed			
South Big Salmon River	Spawning may take place up to 2 or 3 km upstream of Livingstone Creek	Spawning Documented. Returns are currently thought to be low, but historically much higher. Extensive placer mining in watershed.	Ferguson & Roizman, 2001 Johnson, 1989 & TKC Oral History Project, 2003

3.1.2.2 Extent of Juvenile Chinook Rearing Habitat

Juvenile chinook salmon utilize a variety of habitats for rearing and migration. While rearing does take place in natal streams, juvenile chinook also frequently migrate to non-natal areas, including many non-natal streams. Such migrations include movements of juveniles to areas upstream of all spawning areas in a natal stream. Juvenile chinook rear in the mainstem of larger rivers, as well as small streams with suitable habitat. They generally prefer habitats on the edge of swift water, in small eddies along cut banks, and under cover of larger rocks, woody debris, or cut banks. At times, juvenile chinook can favour small groundwater channels, if suitable cover is present. Generally, unless otherwise proven, the entire area of adult utilization should be considered rearing habitat, plus mainstem and side channel portions of large streams upstream of spawning areas, and, all small tributaries joining such a mainstem. Documented juvenile rearing streams within the TKC Traditional Territory not included in the areas of adult utilization identified in Section 3.1.2.1 are listed below in Table 3. It should be noted that the absence of a stream from this list does not indicate the absence of juvenile chinook in said stream, rather that such information has not been documented.

Table 3. Juvenile Chinook Rearing Streams not Included in Extent of Adult Utilization			
Southern Yukon River Watershed			
Stream	Location	Comments	Source
Fox Creek	Tributary to west side of Lake Laberge. Confirmed in lowest reaches below large beaver dam.	Stream drains Fox Lake into Lake Laberge. Potential for chinook spawning, however stream is currently heavily obstructed by beaver dams. However, historic information indicates that adult chinook used to migrate at least as far upstream as the North Klondike Highway crossing.	Grady, 1999.
Laberge Creek	Tributary to southern end of Lake Laberge. Confirmed within lower couple of km.	Small stream.	FISS, 2005
Little River (tributary to Takhini River)	Located approximately 30 km (as the crow flies) upstream from the mouth of the Takhini River. Confirmed within lower 6 km, as the crow flies.	Upstream extent of utilization may at times extend beyond lower 6 km—extent of sampling in 1997. Sampling in 1988 found no juvenile chinook.	Zurachenko & Finnson, 1998
Lucky Love Creek (tributary to Takhini River)	Located approximately 8 km (as the crow flies) upstream from the mouth of the Takhini River. Juvenile chinook confirmed within lower 500m.	Very small stream with extensive beaver dams/activity.	Zurachenko & Finnson, 1998
Little Takhini Creek (tributary to Yukon River)	Located approximately 2 km upstream from the Takhini River. Juvenile chinook confirmed up to North Klondike Highway crossing (approx. lower 3-4 km).	Three roads cross this stream. Anthropogenic obstructions to suitable juvenile chinook habitat located upstream include the lower two stream crossings (culverts on N. Klondike and Alaska Highways), as well as remains of an old culvert located about 40 m downstream of the North Klondike Highway.	Gartner Lee, 2004
Croucher Creek	Located approximately 6-7 km downstream of downtown Whitehorse. Juvenile chinook confirmed within lower 3.5-4 km.	Stream has two forks, and large populations of juvenile chinook rear and over winter here. Washed out culvert at Livingstone Trail crossing on north fork of stream is a potential barrier to the upstream migration of juvenile chinook.	Gartner Lee, 2004 Moodie et al, 2000

Table continued...

Table 3 continued... Juvenile Chinook Rearing Streams not Included in Extent of Adult Utilization

Southern Yukon River Watershed			
Stream	Location	Comments	Source
Marwell Creek	Located just downstream of downtown Whitehorse. Juvenile chinook known to rear at mouth, but not documented in stream itself.	Beaver dams at mouth may prevent upstream migration of fish, however, this may not be the case if water levels upstream fluctuate. Extensive contaminated site (Marwell Tar Pit) exists in this stream's drainage.	Gartner Lee, 2004
Spook Creek	Located just downstream of downtown Whitehorse. Juvenile chinook rearing at the mouth.	Stream is extensively developed, and no longer has the potential to provide fish habitat of any value.	Gartner Lee, 2004
MacCrae Creek	Located approximately 10 km upstream of downtown Whitehorse. Juvenile chinook confirmed within lower portions of stream, below golf course.	Natural obstructions created by low water and steep gradients may prevent juvenile chinook from access habitats further upstream. As well, culvert at Alaska Highway crossing is a barrier to fish passage.	Gartner Lee, 2004
Teslin River Watershed			
Sheldon Creek	Located approximately 75-80 km upstream from mouth of Teslin River, across from Boswell River.	Presence of juvenile chinook indicated in FISS database—2005.	FISS, 2005
Indian River	Located approximately 70-75 km upstream from mouth of Teslin River, 3 km downstream from mouth Boswell River.	Presence of juvenile chinook indicated in FISS database—2005.	FISS, 2005
Open Creek	Located just above Teslin (Winter) Crossing on the Teslin River, approximately 40 km upstream from mouth.	Presence of juvenile chinook indicated in FISS database—2005.	FISS, 2005

It is worth noting that Gartner Lee Ltd identified a number of anthropogenic and other obstructions within small streams in the Whitehorse area during 2004. Several such streams were documented as supporting juvenile chinook downstream of said obstructions, however suitable habitat further upstream remains inaccessible. Most of these cases are included in Table 3, with the exception of Wolf creek, which is included in the area of adult chinook utilization—detailed in Table 4.

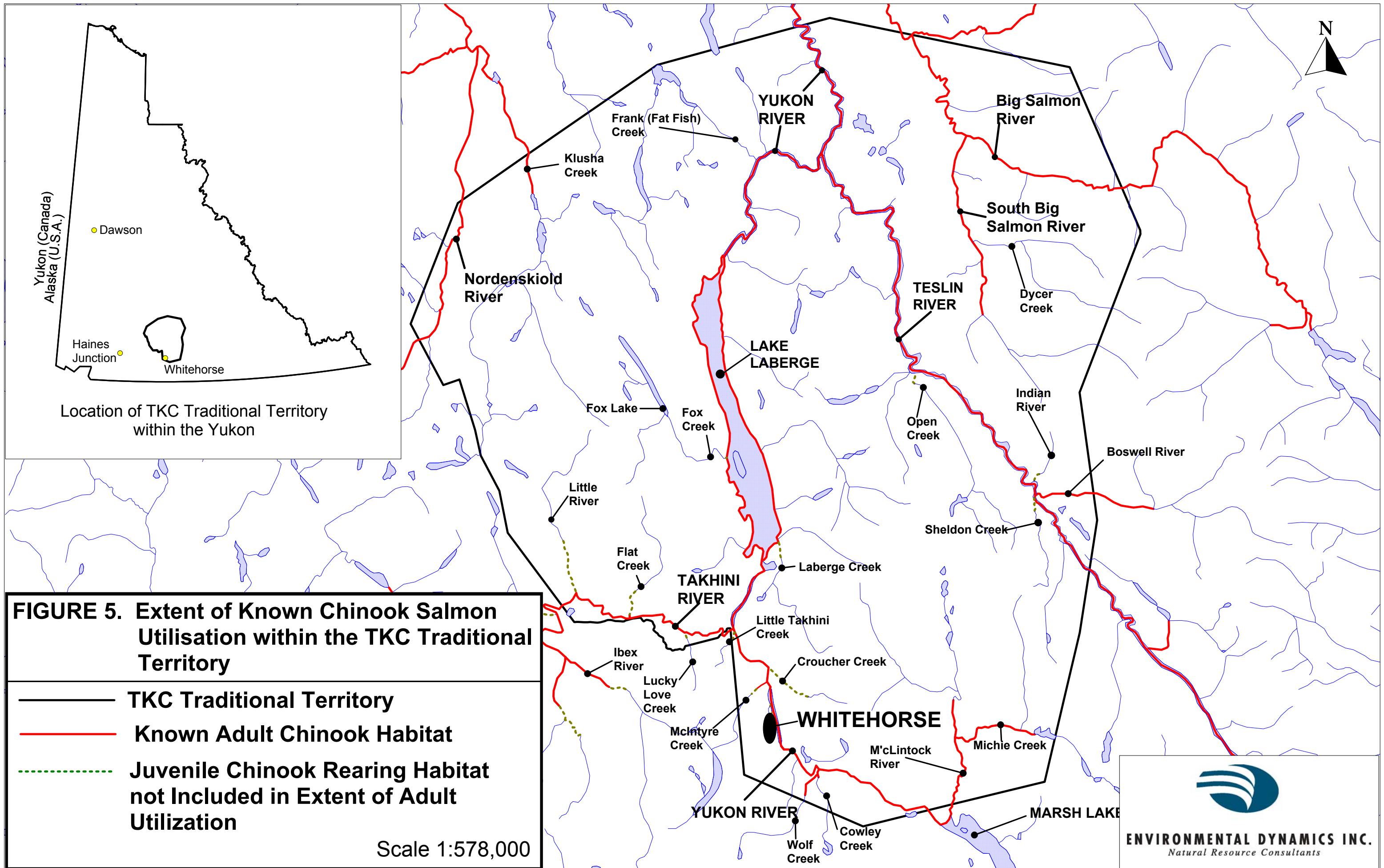


FIGURE 5. Extent of Known Chinook Salmon Utilisation within the TKC Traditional Territory

- TKC Traditional Territory
- Known Adult Chinook Habitat
- Juvenile Chinook Rearing Habitat not Included in Extent of Adult Utilization

Scale 1:578,000

3.1.3 Information Regarding Chum Salmon

Traditional Knowledge compiled in this project indicated a historical fishery for chum salmon at Upper Laberge, just upstream of Lake Laberge (Johnson, 1989). This reference, therefore indicates the presence of chum salmon migrating upstream of Lake Laberge (see Table 1). As well, it was mentioned in the workshops that dead chum salmon were observed below the Whitehorse dam in years subsequent to its construction. Further information provided at the workshop also indicated that chum salmon may at one time have migrated up the Takhini River (Salmon Workshops, 2004). Also, in 1976, Brown et al wrote that “[i]t was estimated that 2000 chum salmon occupied the Takhini River spawning grounds in 1960, but the presence of chum salmon in this stream has not been confirmed to date.”

Chum salmon are known to migrate up the Teslin River into Teslin Lake. Some spawning locations have been documented in the Teslin River within the TKC Traditional Territory near the mouth of the Boswell River and near the Roaring Bull Rapids (Milligan et al., 1986). Traditional Knowledge has also indicated chum in the vicinity of Winter Crossing, however it is not clear if the information referred simply to the catch of chum at this location, or to chum spawning at this location (Salmon Workshops, 2004). Little is known about the stocks that migrate into Teslin Lake, including location of their spawning destinations. Chum have been caught as far south as Teslin, and there is speculation that some beach spawning may occur in the lake, as is the case in Kluane Lake. However, to date no such locations have been found.

3.2 Technical Workshop

The technical workshop was held on September 9th, 2004, at the Council of Yukon First Nations office in Whitehorse. A variety of fisheries and related presentations set the stage for a discussion of known fisheries information and habitat issues within the TKC Traditional Territory.

3.2.1 Current State of Salmon Knowledge

Patrick Tobler, of *Environmental Dynamics*, provided an overview presentation to set the stage for the workshop discussion. This presentation included an overview of salmon related research conducted by the TKC in recent years, as well as other recent research in the TKC Traditional Territory. This included research conducted by the TKC, the City of Whitehorse, Fisheries and Oceans Canada, Kwanlin Dun First Nation, Champagne and Aishihik First Nation, developers, and consultants. Ideas for future salmon related research/restoration projects were also outlined.

TKC researcher Lori Graham provided a summary of her research on Traditional Knowledge of fisheries information within TKC Traditional Territory. This information consisted of important fishing and fish camp locations throughout the Traditional Territory, sourced from various documents and electronic media held within the TKC Government, as well as from discussions with individual elders.

Al von Finster, with Fisheries and Oceans Canada, provided further background information on salmon in the Whitehorse area, and provided an overview of fisheries habitat issues (particularly the effects of climate change) within the TKC Traditional Territory. Al also provided valuable information regarding the presence of chum salmon below the Whitehorse dam when he was a child. He also recalls a record of uncertain source regarding the presence of chum salmon in the Takhini River. As well, Al provided information that cisco spawn from just upstream of Lake Laberge to the Takhini River, and also up the Takhini River.

Patrick Milligan, with Fisheries and Oceans Canada, provided an overview of current chinook salmon stock assessment within the TKC Traditional Territory. Patrick also provided recent valuable information regarding the observation of a number of adult chinook salmon (25) at the outlet of Lake Laberge during the summer of 2004.

Ross Burnett, with the City of Whitehorse, provided an overview of the City's Salmon Habitat Management Plan, and other salmon related works.

Gillian McKee, with the Kwanlin Dun First Nation (KDFN), provided an overview of KDFN salmon related research and related information sources.

3.2.2 *Agriculture*

Patrick Tobler gave a brief overview of the status of agricultural activities and potential within the TKC Traditional Territory, with information provided by the Yukon Agricultural Branch. A representative from the Yukon Agricultural Branch was unable to attend. Currently, areas of developed agricultural land within the TKC Traditional Territory include:

- Hot Springs Road Area
- Takhini River Road.
- North Klondike Highway, north from Hot Springs Road to Fox Lake.
- McClintock River Valley.
- Whitehorse Periphery.

The most demand for agricultural land within the Yukon is near Whitehorse and the vast majority (126 out of 170) of Yukon farms are currently located in the Whitehorse area. The Yukon Agricultural Branch does not foresee significant expansion of agricultural activity in the Whitehorse area (Lee, pers. comm., 2004).

3.2.3 *Forestry*

Lyle Dinn of the Yukon Government Forest Planning and Development provided an overview of forestry activity and potential within the TKC Traditional Territory. Currently, there are no large-scale commercial forestry activities within the TKC Traditional Territory. There are some very small-scale timber harvest permits in the Marsh Lake and Michie Creek areas, with a total of 1,500 m³ permitted and only 7-800 m³ harvested to date. Fuel wood harvesting for personal use and small-scale commercial purposes is permitted in specific locations throughout the Traditional Territory. In a couple of years, a Yukon Forest Act will be passed; however, any expansion of timber harvest within the next 5 years is considered unlikely. Lyle also indicated that the potential for large-scale commercial forestry within the foreseeable future was very low. Close to half of the Traditional Territory has burned in the last 50 years, much of the area is remote and inaccessible, there are many stakeholders with involvement/concerns regarding such development, and significant wildlife habitat issues as well. There is, apparently, some distant potential for pulp wood harvest, however this would require an assurance of a constant wood supply. Some workshop participants suggested that much of the larger timber is located on floodplains and near waterways, and this wood may be in high demand in the future. Therefore, the potential for forestry or wildfire impacts to fisheries habitat does exist. Changes in forest cover near riparian areas can result in a variety of adverse impacts on fish habitat.

3.2.4 Mining

Grant Abbot with the Yukon Geological Survey discussed the mineral potential and the current state of mining activity in the TKC Traditional Territory. The minerals with potential in the area are gold, copper, molybdenum, and coal. Extensive active placer gold claims exist in the South Big Salmon watershed. Other mineral claims include extensive hard rock claims throughout the area known as the Whitehorse copper belt, and hard rock claims located between Lake Laberge and the Teslin River. As well, an extensive area of coal leases extends into the northwest corner of the Traditional Territory, including portions of the Nordenskiold watershed and most of the Klusha Creek watershed. No indications of immediate large-scale mineral development are presently evident in the Traditional Territory. However, the possibility of development of a molybdenum deposit located in the headwater region of the Boswell River (tributary to the Teslin River) does exist if the global price of this mineral continues to remain strong. It is expected that significant exploration work (including road construction) on this deposit will occur during 2005,

3.2.5 Climate Change

An overview of the current and potential impacts of climate change on salmon and their habitat was presented by Rick Janowicz and Panya Lipovsky.

Rick Janowicz, with Yukon Water Resources, provided an overview of changes in stream flow regimes, with a particular focus on changes in peak flows. Overall water temperatures can be expected to increase in the Yukon. Increased stream flow (overall volume) and peak flows can be expected in the southwest Yukon, glacial fed streams receive increased melt water. In the interior and eastern Yukon, stream flows can be expected to remain stable. In the northern Yukon, stream flows (overall volume) and peak flows can be expected to decrease.

Panya Lipovsky with the Yukon Geological Survey provided an in-depth look at the effects of climate change on landslide frequency in the Yukon and the implications for salmon habitat. An account of current landslide activity in the Yukon and its relationship with permafrost, changing temperatures, forest fires, and fish habitat was provided. Several recent examples illustrating the sedimentation of streams were provided.

3.2.6 Factors Identified in Workshop that may impact Salmon Stocks/Habitat

Workshop participants identified various factors that may currently or potentially impact salmon stocks and/or their habitat. Such factors are listed below.

- Water levels in small streams, or non-glacial streams may be impacted by climate change. This may result in decreased flows, thereby changing (and in some cases eliminating) fish habitat characteristics provided by a stream.
- Potential siltation of important habitat due to increased frequency of landslides—an impact of climate change. Of particular concern are slides near spawning grounds. An example of a situation of concern is a slide in the vicinity of Michie Creek.
- Ichthyophonous—parasitic microorganism—infections of adult chinook have become prevalent in recent years. The impact on spawning success of infected fish remains unknown.
- Impacts from agricultural developments, including grazing, clearing of land, water use for irrigation, and fertilizer/pesticide inputs.
- Large mesh gillnets used in Alaska are selective for larger fish, particularly females.

- Areas of highest timber value will be in riparian areas, also associated with groundwater discharge areas. Groundwater discharge areas are associated with critical fish habitat, most notably salmon spawning destinations. Therefore, future forestry activities most likely to also be associated with these areas are of high fish habitat value.
- The old Range Road dump site in Whitehorse was identified as an issue that may be impacting the Yukon River and McIntyre Creek.
- It appears a major spawning area for chinook existed between Miles Canyon and the outlet of Marsh Lake. However, in 1969, the water level was raised by one metre for the dam, and this has changed the habitat.
- Concerns were raised about the impacts that placer mining have had on the South Big Salmon watershed.
- The future or potential use of use of large jet boats in spawning areas downstream of Lake Laberge and/or in the Teslin River may present a concern in regard to their impact on redds. Jet boats act as a large, mobile, unscreened pump, producing considerable hydraulic action that may affect the stream bottom in shallow areas, including chinook spawning beds. While jet boats are not currently considered a problem, they could become a concern with future large-scale tourism and increased recreational use of the rivers.

3.2.7 Priorities Identified in Workshop

Workshop participants discussed a number of priorities for potential future TKC salmon related work. The priorities identified were as follows:

- Beaver dam management on Fox Creek.
- Development of a beaver management plan for the Traditional Territory.
- Baseline assessment of chinook utilization of the Yukon River below Lake Laberge (Thirty Mile River)—with focus on habitats that may face impacts due to climate change, development, or other activities.
- Address clean up/remediation of eroding berm and old dump site at the mouth of McIntyre Creek.
- Become more active in the Yukon Salmon Committee and the Yukon River Panel's Joint Technical Committee.
- Shoreline cleanup of Lake Laberge—extensive debris such as old drums, telegraph wire, etc.
- Possible long-term restoration of South Big Salmon River and tributaries.
- Collect baseline data for on-going monitoring of climate change.
- Collect baseline data in potential hotspots for development.

3.3 Elders/Community Workshop at Lake Laberge

The community workshop was held on September 11th, 2004, at Helen's Fish Camp at Lake Laberge. A number of initial presentations set the topic and tone of discussion for the remainder of the workshop, where community members knowledge of fish and fish habitat was sought and discussion of fish related issues within the TKC Traditional Territory was conducted. Presentations were provide by Carl Sydney, Yukon Salmon Committee, Al von Finster, Fisheries and Oceans Canada, Rob Rosenfeld, Yukon River Intertribal Watershed Council, and Patrick Tobler, *Environmental Dynamics*. Carl Sydney discussed the role of the Yukon Salmon Committee in the management of Yukon River salmon stocks. Al von Finster discussed his knowledge regarding the status of salmon stocks and habitat in the TKC Traditional Territory. Rob Rosenfeld discussed the mandate and role of the Yukon River Intertribal Watershed Council. Patrick Tobler discussed past fisheries related work in the TKC Traditional Territory, and facilitated discussion of fisheries knowledge by community participants.

3.3.1 Information Provided by Community Members

Klusha Creek

- Ta'an did not have a name for this creek.
- Airport Lake contains pike, grayling, whitefish, and lake trout.
- Old fish trap locations in this creek were burned in 1950s fires.

30 Mile River (Yukon River below Lake Laberge)

- Lots of eagles.
- Long ago dead salmon were everywhere, including along the shores of Lake Laberge.
- Frank Creek (tributary to 30 Mile) was called "Fat Fish Creek," or "Huna Tana."
- Salmon were thought to have migrated up Frank Creek, but it has been blocked by beavers.

Lake Laberge

- Some participants had heard of salmon migrating up Fox Creek.
- Grizzly Creek used to be called Joe Creek.
- Whitefish in Shallow Bay. See **Map Code L** in Figure 4.

Takhini River

- People used to fish at current site of bridge. See **Map Code H** in Figure 4.
- Old village site near the mouth of Little River. See **Map Code I** in Figure 4.
- A few chinook have been documented by the Champagne and Aishihik First Nation in the Upper Takhini and Primrose Rivers (outside TKC Traditional Territory).
- Chinook used to spawn at the mouth of the Mendenhall River (outside TKC Traditional Territory).

Whitehorse Area

- Whitefish in slough adjacent to the present site of Wal-Mart, at mouth of what used to be Spook Creek.
- Trout used to be caught through the ice.
- First City Dump was by Kiskoot Island.
- Lots of fish (salmon, burbot, trout) were taken near the present location of the dam, and the current location of the Robert Campbell Bridge. See **Map Code E** in Figure 4.
- Gaffing was prominent method of salmon harvest at dam site and through Miles Canyon.
- Wolf Creek—grayling & trout

McClintock River

- Large amounts of salmon were fished near the mouth of the river. Dogs were used to pack the fish out. See **Map Code A** in Figure 4.
- Once salmon bones were found upstream of the falls (barrier to fish passage) at Black Lake.

Teslin River

- Dead salmon all the way up.
- Fish Camps/Villages at Mason Landing and Seventeen Mile. See **Map Code M** in Figure 4.
- Lots of dog salmon (chum) caught at Winter Crossing, Dog Salmon Slough. A source of ground water discharge was indicated in this location. See **Map Code C** in Figure 4.
- Chum also taken at Mary River (outside TKC Traditional Territory). See **Map Code N** in Figure 4.

South Big Salmon River

- A fish trap used to exist at the mouth of the South Big Salmon River. One channel of the river was blocked. Lots of people came from all over to this location. See **Map Code D** in Figure 4.

3.3.2 Factors Identified in Workshop that may impact Salmon Stocks/Habitat

Workshop participants identified various factors that may currently or potentially impact salmon stocks and/or their habitat. Such factors are listed below.

- Water levels in Lake Laberge have changed since the Whitehorse dam was built.
- Whitehorse storm sewers draining into the Yukon River may be at times releasing contaminants and sediment.
- Tourists travelling on the river leaving garbage while damaging habitat and other values.
- Agricultural development near Flat Creek, and near other small streams, may require water from these smaller streams. Due to their size, small streams are susceptible to water removal activities.
- Concerns were raised about the impacts that placer mining have had on the South Big Salmon watershed.

3.4 Other Issues Raised in Workshops

It should be noted that a significant concern raised in both workshops was the current impact of tourism on the land and water in the TKC Traditional Territory. The heavy traffic on the larger waterways, mainly in the form of eco-tourists travelling downriver by canoe, has resulted in heavily used campsites and other areas where garbage/waste can become a problem. As well, in some cases, TKC heritage buildings and structures have been damaged or vandalized by people travelling down the river. While these issues have no direct fisheries connection, such concerns held a significant profile in both workshops. A variety of ideas were discussed in this regard, and solutions such as educational programs, limiting access, and the charging of fees were discussed.

4.0 CONCLUSION/RECOMMENDATIONS

This project has succeeded in compiling a summary of relevant salmon related information as well as bringing the TKC together with technical experts and government managers to discuss the management of salmon in their Traditional Territory. Issues of concern as well as priorities for future work have been identified.

4.1 Significant Data Gaps

A variety of gaps in knowledge were identified in the course of this project, including the following:

- A lack of knowledge regarding the extent of chinook utilization of some streams within the TKC Traditional Territory.

- A lack of understanding regarding changes in chinook stocks resulting from various developments within the TKC Traditional Territory.
- A lack of knowledge regarding the historical and current extent of chum utilization of habitats within the TKC Traditional Territory.
- Information regarding the current and future impacts of climate change on salmon and their habitats.

4.2 Recommended Priorities for Salmon Related Work

Based on the information gathered in this project and the input of TKC staff and citizens, the following items are recommended as priorities for salmon related research and work in the near future:

- Research extent of current chinook habitat utilization within the TKC Traditional Territory.
 - Specifically the following streams are identified for research in the immediate future;
 - Yukon River below Lake Laberge (30 Mile River) and tributaries.
 - Fox Creek.
 - Small tributaries to Teslin River.
- Beaver activity was identified as having impacted several important streams in the TKC Traditional Territory, including Fox, Horse, and Frank Creeks. It is recommended that beaver management projects be undertaken in relevant streams, beginning with Fox Creek.
- Restoration projects to remove barriers to fish passage identified in small streams within the Whitehorse area.
- Restoration works required to clean-up, stabilize, and rehabilitate stream channel and riparian habitat at the Range Road Dump site in Whitehorse, located at the confluence of the Yukon River and McIntyre Creek.
- Increase TKC involvement in Yukon River salmon management (i.e. representation on the Yukon Salmon Committee and the Joint (Canada/U.S.) Technical Committee).
- Compare historic extent of adult chinook distribution with current adult distribution to identify changes and probable causes.
- Research current extent of chum distribution within the TKC Traditional Territory.
- Establish a program of baseline data collection regarding the impacts of climate change.
- Collect baseline data with regard to relevant anticipated “hotspots” for future development that may have an impact on fish habitat.

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APPENDIX A: Participants in Workshops

Participants in Technical Salmon Information Workshop	
Name	Affiliation
Kate Bartel	Fisheries and Oceans Canada
Al von Finster	Fisheries and Oceans Canada
Rick Janowicz	Yukon Water Resources
Panya Lipovsky	Yukon Geological Survey
Gillian McKee	Kwanlin Dun First Nation
Patrick Milligan	Fisheries and Oceans Canada
Isaac Anderton	Environmental Dynamics Inc.
Pat Tobler	Environmental Dynamics Inc.
Ross Burnett	Habitat Coordinator—City of Whitehorse
Grant Abbott	Yukon Geological Survey
Vicky Josie	Yukon Salmon Committee & Yukon River Panel
John Streicker	Northern Climate Exchange (Yukon College)
Lori Graham	Researcher, Ta'an Kwach'an Council
Dave Jones	Yukon Conservation Society
Peter Borotsik	Environmental Coordinator, Ta'an Kwach'an Council
Carl Sydney	Yukon Salmon Committee & Yukon River Panel
Flory Enzenauer	Laberge Renewable Resource Council
Lyle Dinn	Yukon Government Forest Management Branch
Geraldine Pope	Mgr. of Lands & Resources, Ta'an Kwach'an Council
Coralee Johns	Lands & Resources Assistant, Ta'an Kwach'an Council
John Pattimore	Lands & Resources Manager, Ta'an Kwach'an Council
Frances Woolsey	Laberge Renewable Resources Council

Participants in Elders/Community Salmon Information Workshop	
Name	Affiliation
Frances Woolsey	Laberge Renewable Resources Council
John Pattimore	Lands Manager, Ta'an Kwach'an Council
Louise Cletheroe	Ta'an Kwach'an Elder
Marion Irvine	Ta'an Kwach'an Elder
Louie Smith	Kwanlin Dun First Nation Elder
Vicky Josie	Yukon Salmon Committee & Yukon River Panel
Geraldine Pope	Mgr. of Lands and Resources, Ta'an Kwach'an Council
Lori Graham	Researcher, Ta'an Kwach'an Council
Daryn Vance	Ta'an Kwach'an Citizen
Annie Geddies	Ta'an Kwach'an Elder
Roberta Behn	Ta'an Kwach'an Citizen
Isaac Anderton	Environmental Dynamics Inc.
Carl Sydney	Yukon Salmon Committee & Yukon River Panel
Coralee Johns	Lands & Resources Assistant, Ta'an Kwach'an Council
Pat Tobler	Environmental Dynamics Inc.
Rob Rosenfeld	Yukon River Intertribal Watershed Council
Al von Finster	Fisheries and Oceans Canada
Peter Borotsik	Environmental Coordinator, Ta'an Kwach'an Council
Brenda Sam	Ta'an Kwach'an Citizen
Jordan Sam	Ta'an Kwach'an Citizen
Sophie Miller	Ta'an Kwach'an Elder

APPENDIX B: Report by TKC Researcher (Lori Graham).

**Report on Historic Fish Camp Locations and Traditional Fish Use within the
Ta'an Kwäch'än Traditional Territory**

Prepared for Environmental Dynamics

Prepared by Lori Graham

July, 2004

Project Name:

Salmon Information Gathering Workshop within the Ta'an Kwäch'än Council Traditional Territory.

Research Area:

Ta'an Kwäch'än Council Traditional Territory

Objectives Summary:

To identify historic fishing sites, fish camp and fish trap locations within the TKC Traditional territory.

Methods:

Information was obtained and compiled by consulting existing fisheries data sources including the TKC Archives, Library, and Lands and Resources Department, Yukon Archives, Council for Yukon Indians Resource Library, consultant reports and personal interviews with TKC Citizens.

Authorization of Release of Information:

Completed report was forwarded to the Ta'an Kwäch'än Chief and Council and Elder's Council for review and approval prior to submission to EDI.

McClintock River (Gyü chúa – King Salmon Creek, s.tutchone)

Stone tool chips and flakes found at McClintock Bay indicate traditional use of this area (Ta'an Kwäch'än Cultural History Project, 1989).

A traditional fish camp was located at the confluence of the McClintock River and Michie Creek (TKC Heritage Project, 1989), where Chinook salmon were gaffed and prepared for winter. To the north of McClintock, just below the falls, an additional fish camp was located where Chinook salmon and grayling were harvested by gaff and net during mid July and August.

Roaring Bull Rapids

A fishing camp was located at the confluence of the Boswell and Teslin Rivers. Chum? (As mapped by FISS, 2003) and Chinook salmon were harvested by gaff and prepared for winter (TKCHP, 1989), as well grayling, fished just below the rapids.

Winter Crossing or Teslin Crossing

Fish nets were set for Chinook Salmon at Winter Crossing and a camp situated approximately four miles north of Winter Crossing, (int. Elder Frances Woolsey; July, 2004).

Big Salmon River

Sockeye salmon were gaffed from the south fork of the Big Salmon River. There may have been fish camps situated at the confluence of the South Big Salmon River and Dycer Creek (TKCHP, 1989. TKC Oral History Project, 2003)

TáK'ambän

Area situated approximately four miles upstream from Wolf Creek was used for visiting FN's fishing and hunting camps. (TKC Elders- "Place names" meeting minutes. March 17, 1998.)

Whitehorse (Kwanlin – running water through canyon)

A salmon fishing site was located on the southern side of the Yukon River at Whitehorse Rapids' where Whitehorse Hydro Dam is now situated. Traditional use of this area was continued by the Billy Lebarge family until the construction of the dam. (TKCOHP, 2003. Violet Storer; TKCHP, 1989.)

The area from the Yukon Energy corp. plant at the dam area and up to miles canyon was used on both sides of the river for gaffing salmon. Gaffing was the method used until the introduction of trade with the Alaskan FN's resulted in obtaining gill nets that were used to learn how to make (sinew) nets. (Whitehorse Riverfront Heritage Resources: Midnight Arts North Words Consulting, 1998.)

Gill nets were set where the Robert Service Campbell Bridge is now sited as well as directly across the river from this area (Denny Broeren, TKCOHP, 2003). The site where the S.S. Klondike is now situated was a permanent fishing camp used by the Billy Lebarge family (Violet Storer, Archival interview 17 March, 1998).

Traditionally, TKC people camped and fished at the confluence of the Yukon River and McIntyre Creek. The Southern Tutchone place name for this area is Dàmäwtän, meaning High Bank (cliff), where Salmon as well as grayling and whitefish could be harvested. (TKCHP, 1989) (Whitehorse Riverfront Heritage Resources; 1998.)

Atsua Ku (Grandma's camp) or Klute wood camp is situated at the Yukon River at Croucher Creek. Traditionally this site was maintained as a fish camp, then as a wood camp and is currently established as a small traditional camp for tourists operated by the MacCannell family.

Fish Lake (Łu zeal – skimming fat off the fish). This entire area was fished and hunted.

Takhini River (Näkhų chù – crossing with raft)

Makhų Chų Dashè fish camp is located at the confluence of the Yukon and Takhini Rivers. (TKC Elders, Place Names Project meeting, March 17, 1998)

A small village and fish camp (Lür dayël – dust starts to blow around; also known as 31 mile post) was located along the Takhini River near the mouth of Little River and was a principle salmon fishing camp. Stone tool chips were excavated and dated to be between five and eight thousand years old. This village was inhabited up until the 'Takhini Burn' in the mid 50's (The Lake Laberge Archaeology Project, 1989.)

Shallow Bay (Män TI'ät-bay at head of lake)

An important fishing site was located at the mouth of Horse Creek and Lake Laberge. This was a main whitefish harvesting camp throughout the fall months. Willow trees were bound together to form a huge log, which was then rolled

across the surface of the water towards the marshy shore. The stunned fish were then gathered and prepared for winter. This site was known as a sort of “breadbasket” by first nations. (Ta'an Kwäch'än People of the Lake, 2000.) (int. Sophie Miller and Frances Woolsey, June 2004.)

Upper Laberge Village or Police Post (Chu dä shay – mouth of river)

Chinook salmon and Chum salmon were netted from near this site commercially by the Ta'an people for sustenance and to supply the Cluett Fox Farm near Whitehorse as well as the steamships. (TCCHP, 1989.)

Frank or Fat Fish Creek

Grayling traps were operated at this location until the mid 1940's (Rourke. Yukon River, 1985.)

Hootalinqua

Hootalinqua was an important trading and meeting place where salmon were harvested during summer months. (int. Sophie Miller, 2004)

Fox Creek (Kwätänay Chù) and Fox Lake (Kwätan'ay Män)

A trail goes from fish camps on Fox Creek to the traditional camp on the southern end of Fox Lake. (Lake Laberge Archaeology Project, 1995.)

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