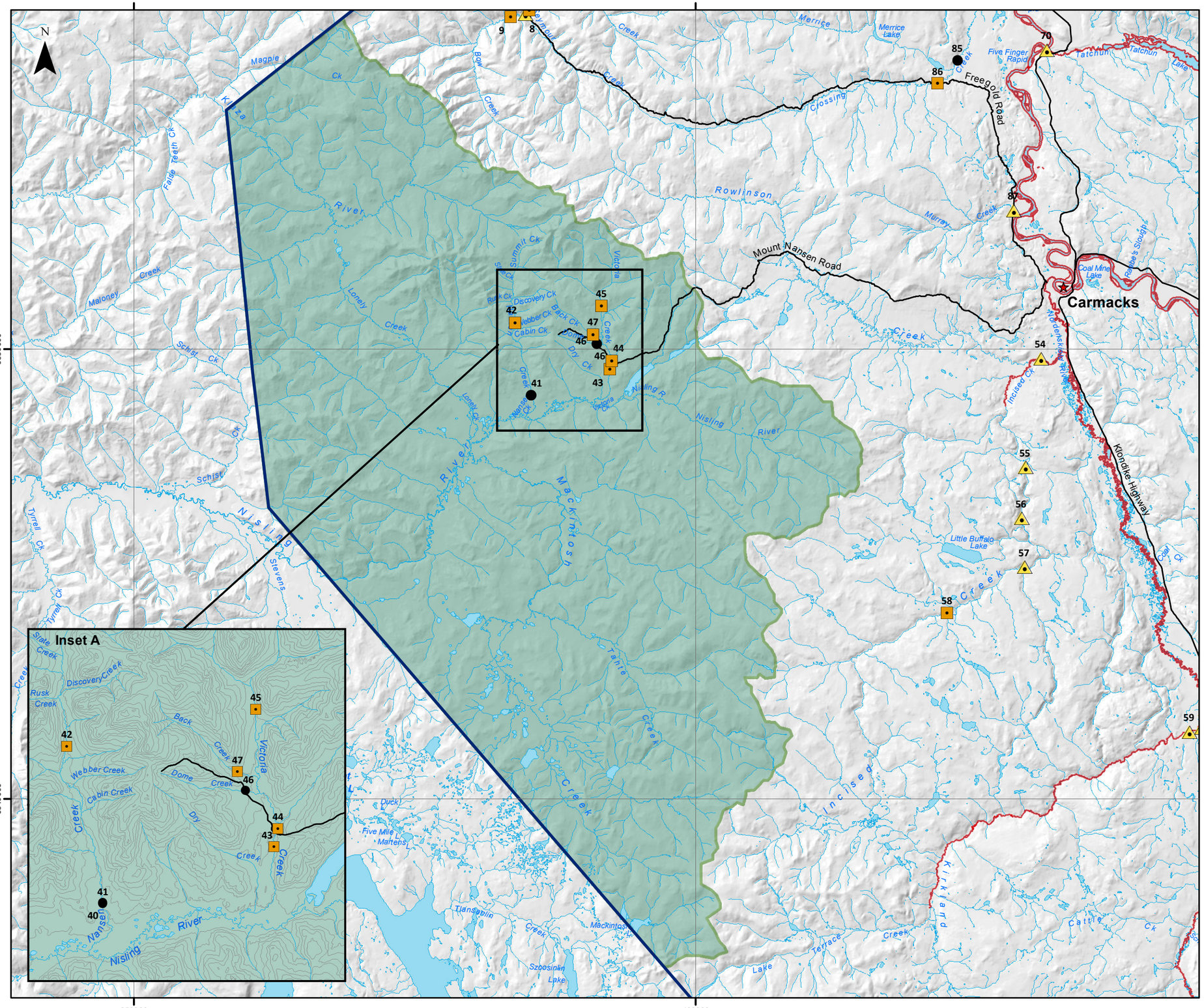

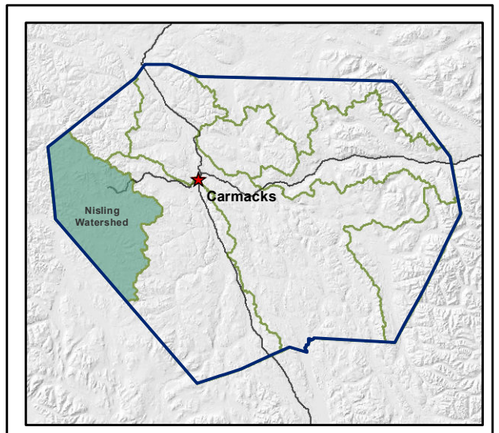

Figure 5. Nisling Watershed Area Existing Chinook Salmon Knowledge

Legend

- Juvenile Chinook Captured
- Freshwater Fish Captured
- No Fish Captured
- Watercourse Known Extent of Adult Chinook
- Waterbody Known Extent of Adult Chinook
- LSCFN Traditional Territory
- Nisling Watershed Area

0 5 10 15 Km

Drawn By: L. Grieve and M. Marjanovic
Checked By: M. Power and P. Tobler
Date: 18 March 2011
Projection: NAD 1983 UTM Zone 08
EDI Project #: 10-YC-0058

Digital Data Sources:

Yukon digital elevation model provided courtesy of Yukon Government - Geomatics Yukon.

1:50,000 waterbodies, watercourses, and LSCFN Traditional Territory boundary, and Main Roadways from Yukon Geomatics Corporate Spatial Warehouse.

Fish Capture Point Data: The FISS Yukon Fish Distribution Shapefile (provided by DFO) was checked against original source data and any new data acquired during EDI's scientific information gathering.

Known Extent of Adult Chinook: This data was reproduced digitally from a hard copy map developed by DFO (early 2000s) of known extent of adult Chinook salmon utilization, which was then checked against other source data (see Methods in report).

Watershed Areas: Project specific watershed areas digitized by EDI using 1:50,000 watercourse and waterbody data along with DEM and contour data.

Disclaimer: This document is not an official land survey and is presented without prejudice. The spatial data presented on the map is subject to change without notice.

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3.5 Nordenskiold Watershed Area

The table below summarizes salmon and salmon habitat information for the Nordenskiold Watershed Area. For additional details on the information provided below, refer to the relevant source citations. See Figure 6 for a map summarizing the existing scientific salmon habitat utilization knowledge available for the Nordenskiold Watershed Area. For specific map point information refer to Appendix B using the point ID number.

Watershed Overview	
The Nordenskiold is a large river system entering the Yukon River at Carmacks. The Nordenskiold flows from Hutchi and Long lakes, draining the south-eastern portion of the Traditional Territory. The river has moderate to slow-moving flows with beaver activity throughout. Other Yukon River Panel R&E projects have done work on the Nordenskiold River and its main tributary Klusha Creek in the past (including CRE-03-00, CRE-13-01, CRE-33-02 and CRE-35-03, and CRE-35-04). Much of the Nordenskiold River and Klusha Creek are accessible from the North Klondike Highway. There is also an unmaintained road into the lower Incised Creek area (built in 1960s for mining). See Figure 6 for a map summarizing the existing scientific salmon knowledge available for the Nordenskiold Watershed Area. Primary tributaries to the Nordenskiold River include; • Rowlinson Creek: descends steeply from the Yukon Plateau in the north through a deeply cut canyon before entering the Nordenskiold close to the mouth with the Yukon River. • Incised Creek: is a tributary to Rowlinson Creek, entering near the confluence with the Nordenskiold. • Kirkland Creek: flows from a plateau to a confined valley and eventually to a canyon before meeting the Nordenskiold. • Klusha Creek: flows into the Nordenskiold with several lake fed inputs, including Little Fox Lake, Twin Lakes and Braeburn Lake. Stream velocities are moderate with a low gradient and beaver activity is common. • Other Tributaries: Ten Mile, Schwatka, Cattle, Lake Terrace, Gorge, Angel, and Coal creeks.	
Spawning & Spawning Habitat Summary	
Nordenskiold River	Chinook spawning has been documented as far upstream as the outlet of Hutshi Lake (von Finster 2001a) which lies just outside of the Traditional Territory. Note spawning is mostly concentrated from km 59.8 to km 88.9 (von Finster 2001a, von Finster 2003). No beaver dams were active during the 2003 overflight, however log jams and beaver dams have been documented in the past throughout the river during numerous investigations (Pumphrey 1999, 2001a, 2001b, 2003; Walker et al. 1974), and many of these were breached during restoration and enhancement work in 2000 (LSCFN 2001).
Klusha Creek	Beaver activity had totally blocked off Chinook access to spawning sites in early 1990s (von Finster 2001a). The stock was noted as extirpated; however, both the LSCFN and Champagne Aishihik First Nation undertook beaver and beaver dam management programs from 1996 to 2000 (LSCFN 1999, 2001). Spawners were seen in the creek again in 2001, the first sighting

	since 1963 (von Finster 2001a). Known extent is as far upstream as Little Braeburn Lake.
Rowlinson Creek	Spawning has only been documented to the confluence with Incised Creek (DFO 2008). There are no records of spawning further upstream.
Incised Creek (also known as Florence Creek)	Spawning adults were first documented in 1990, but have only since been seen in the first 6 km upstream from the mouth (von Finster 2001a, 2003). Excellent spawning habitat apparently exists upstream of this point (DFO 1990), but no adult spawning has been observed. Beaver activity has been noted at km 14.7 and there is a canyon at km 27 with some small waterfalls which may act as a barrier to upstream adult migration (DFO 1990).
Kirkland Creek	Chinook spawning was first documented in 1995, and then again in 2001 (von Finster 1995). Known extent is upstream to Lake Terrace Creek (von Finster 1995). Traditional Knowledge research conducted by Pumphrey (1999) revealed that salmon used to use Sakata Lake, the headwaters of Kirkland Creek.
Rearing & Rearing Habitat Summary	
Nordenskiold River	With the spawning population of Chinook salmon in the Nordenskiold, juvenile Chinook utilize the river for natal rearing. Rearing habitat may be limited by barriers such as log jams and beaver dams, which have been documented throughout the river system during previous investigations (Walker et al. 1974; Pumphrey 1999, 2001a, 2001b, 2003). Pumphrey identified suitable stream morphology, water quality, and salmon habitat but low captures (9 juvenile Chinook total out of 2,023 minnow trap hours). Non-natal use of some of the smaller tributaries has been documented, for example in Angel Creek and an Unnamed Creek (known as Disappearing Creek), but sampling has been limited to one sampling site (Pumphrey 1999). See details for these creeks below.
Klusha Creek	Juvenile Chinook sampling was conducted in 1978 and 1998 with no juvenile Chinook captured in the creek (Beak Consultants Ltd. 1979; Otto 1998a; Pumphrey 1999). The lack of juvenile Chinook was likely a result of prolific beaver activity throughout the creek, which prevented spawners from accessing the creek from 1963 to 2001. After restoration works which involved breaching all beaver dams in 1999 and 2000 (LSCFN 1999, 2001), adult Chinook were able to spawn in the creek in 2001 (von Finster 2001). Following in 2002, Chinook fry were observed downstream of Twin Lakes (Brown 2002).
Rowlinson Creek	Juvenile Chinook have only been captured within the zone of adult utilization, up to the confluence with Incised Creek (Beak Consultants Ltd. 1979); however, no sampling has been conducted outside of this area. The habitat in this lower area has high velocities and was classified as poor to fair habitat for fish (Beak Consultants Ltd. 1979).
Incised Creek (also known as Florence Creek)	Juvenile rearing has been documented throughout the creek, and juvenile Chinook have been captured upstream of the known adult extent (DFO 1990).

Kirkland Creek	Juvenile Chinook have been captured and observed just upstream from the confluence with the Nordenskiold (Pumphrey 1999). No sampling has been undertaken further upstream. Pumphrey (1999) identified this creek as providing favourable salmon rearing and spawning habitat (suitable sized gravels and cover with large woody debris, cut banks and overhanging vegetation).
Schwatka Creek	During a helicopter flight of the creek in 1998, Pumphrey (1999) found that the creek disappeared underground just upstream of the confluence with the Nordenskiold River. This indicates that the stream may only be accessible to fish intermittently or seasonally.
Cattle Creek	Pumphrey (1999) found the creek to be dry during a helicopter flight in 1998, indicating that the creek may only be seasonal (i.e. spring freshet or after heavy rains), and was not considered reliable rearing habitat.
Angel Creek	During an assessment in 1998 (Pumphrey 1999) habitat was apparently limited by very low water, and as a result only one Chinook fry was observed. The creek is considered an ephemeral stream (seasonal), however a groundwater input was documented near the confluence with the Nordenskiold and slimy sculpin were captured and may be able to persist year long in this area (Pumphrey 1999).
Unnamed Creek (aka. Disappearing Ck.)	One juvenile Chinook was captured during minnow trapping (Pumphrey 1999) but 100 were also observed near the mouth. A large beaver dam (6 feet high) was an apparent barrier to upstream migration. Water temperature was lower and dissolved oxygen was higher than that measured in the mainstem of the Nordenskiold (Pumphrey 1999).
Overwintering	
Some overwintering data exists for the Nordenskiold River and Kirkland Creek as water quality data was collected at open water sites by Pumphrey (1999). It is also speculated that Incised Creek has winter flows as slimy sculpin were captured in the location of Fish Point # 58, and these fish are not expected to have migrated from the lower creek but rather have survived in this area annually (DFO 1990). Klusha Creek also likely provides overwintering habitat based on observations from von Finster (1999) as the basin was heavily affected by glaciation and as a result is filled with glacio-fluvial material which results in significant surface and subsurface water storage.	

3.5.1 Other Information

- **Water Quality:** Water quality and habitat data has been collected by Pumphrey in 1999.
- **Hydrology:** There is a Water Survey of Canada hydrometric station on the Nordenskiold River below Rowlinson Creek (09AH004), which measures discharge. The station is currently active and

data is available from 1982 to the present[13]. Pumphrey (1999) also collected discharge data for some tributary streams.

- **Benthos:** There are several CABIN sites in the watershed where invertebrate/water quality data has been collected in 2008 (Rowlinson, Klusha, Incised and Kirkland creeks)[14].

3.5.2 Data Gaps

- **Spawning & Spawning Habitat:** Aerial surveys over the past 15 years have identified many spawning areas within the watershed as well as access issues (i.e. beaver dams). It is not clear from the existing literature what the current access status is for some of the creeks where beaver management work has been conducted in the past (i.e. Klusha Creek and Nordenskiold River). Also suitable spawning habitat was identified in Incised Creek upstream of the known extent of adult spawning, however no spawners have been seen there. Similarly, Traditional Knowledge revealed that spawning in Kirkland Creek used to extend to Sakata Lake, but no surveys have found evidence of recent spawning to that extent.

- **Rearing & Rearing Habitat**: Fish sampling and habitat assessments have been conducted in several tributaries of the area; however, data is frequently limited to one sampling event and one sampling location near the mouth of the creek (e.g. Kirkland and Disappearing Creek). There are also many tributary streams (Lake Terrace and Satasha Creek, and unnamed creeks) that have not been sampled or assessed for habitat.

- **Overwintering**: There is some winter water quality data for open water areas for many of the main streams, but little data is available for the smaller tributaries.

- **Other Information:** There are some water quality/habitat/hydrology/benthos data gaps for the small unnamed tributaries within the watershed.

3.5.3 Recommendations

To build upon the existing knowledge base of Chinook utilization within the watershed, the following activities are recommended;

- Monitor beaver activity, and continue to maintain access to important spawning areas (e.g. Nordenskiold, Klusha, etc.).

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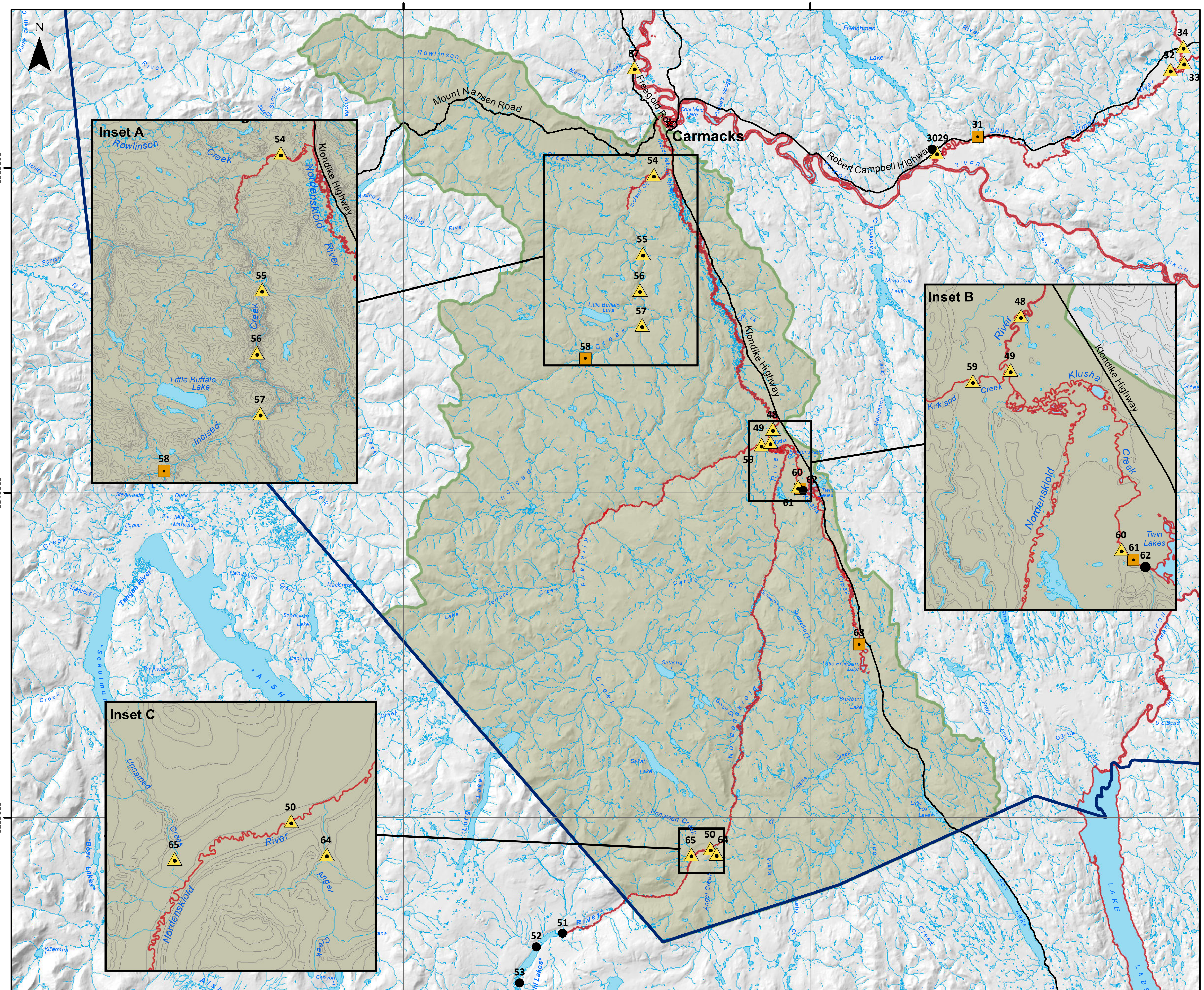
[13] Water Survey of Canada Data:
http://www.wsc.ec.gc.ca/applications/H2O/graph-eng.cfm?station=09AH004&report=daily&year=2009
[14] Map of Current CABIN sites:
http://cabin.cciw.ca/Main/cabin_current_activities.asp?Lang=en-ca

- Investigate spawning extent in Kirkland and Incised Creek.
- Investigate juvenile rearing habitat potential and extent of juvenile utilization on streams with limited to no past sampling data.
- Document and monitor beaver dams and other potential barriers that may affect access to juvenile rearing areas.



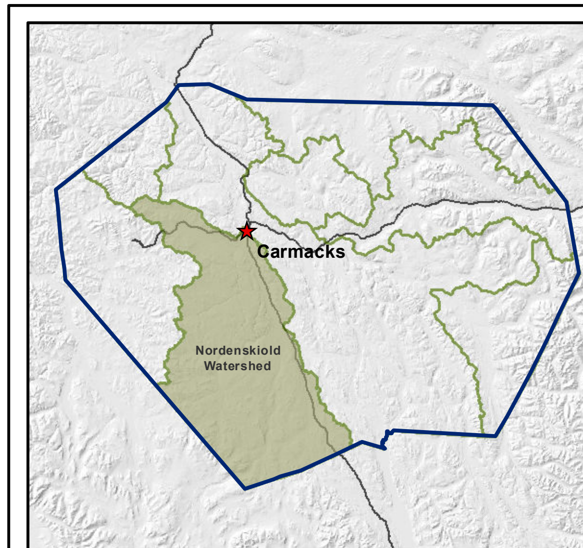


Figure 6. Nordenskiold Watershed Area Existing Chinook Salmon Knowledge

Legend

- Juvenile Chinook Captured
- Freshwater Fish Captured
- No Fish Captured
- Watercourse Known Extent of Adult Chinook
- Waterbody Known Extent of Adult Chinook
- LSCFN Traditional Territory
- Nordenskiold Watershed Area

0 5 10 15 20 25 Km

Drawn By:	L. Grieve and M. Marjanovic
Checked By:	M. Power & P. Tobler
Date:	18 March 2011
Projection:	NAD 1983 UTM Zone 08
EDI Project #:	10-YC-0058

Digital Data Sources:

Yukon digital elevation model provided courtesy of Yukon Government - Geomatics Yukon.

1:50,000 waterbodies, watercourses, and LSCFN Traditional Territory boundary, and Main Roadways from Yukon Geomatics Corporate Spatial Warehouse.

Fish Capture Point Data: The FISS Yukon Fish Distribution Shapefile (provided by DFO) was checked against original source data and any new data acquired during EDI's scientific information gathering.

Known Extent of Adult Chinook: This data was reproduced digitally from a hard copy map developed by DFO (early 2000s) of known extent of adult Chinook salmon utilization, which was then checked against other source data (see Methods in report).

Watershed Areas: Project specific watershed areas digitized by EDI using 1:50,000 watercourse and waterbody data along with DEM and contour data.

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3.6 Pelly Watershed Area

The table below summarizes salmon and salmon habitat information for the Pelly Watershed Area. For additional details on the information provided below, refer to the relevant source citations. See Figure 7 for a map summarizing the existing scientific salmon habitat utilization knowledge available for the Pelly Watershed Area. For specific map point information refer to Appendix B using the point ID number.

Watershed Overview	
There are several tributaries to the Pelly River that lie within the northern portion of the LSCFN Traditional Territory. See Figure 7 for a map summarizing the existing scientific salmon knowledge available for the Pelly Watershed Area. Primary tributaries to the Pelly River (within the LSCFN Traditional Territory) include; • Mica Creek: drains into Tatlmain Lake, and then into Pelly River. Only the most upstream reaches lie within the Traditional Territory. • Tatlmain Creek: drains into Tatlmain Lake, which is then drained by Mica Creek. • Needlerock Creek: is a large tributary to the Pelly covering a large portion of the Pelly Watershed Area within the Traditional Territory. • Tummel River and the North Tummel River: flow through a small portion of the Traditional Territory. • Little Sheep Creek: is a small tributary entering the Pelly downstream from the Tay River confluence. • Pass, Jar and Felix Creek: are all tributaries of the Glenlyon River which enters the Pelly upstream from the Tay River confluence. The Glenlyon River drains Glenlyon Lake (outside of Traditional Territory).	
Spawning & Spawning Habitat Summary	
Mica Creek	Chinook spawning was recorded 24 km upstream from Pelly River confluence (not within the Traditional Territory; Wilson 1997). Beaver activity is present below lake outlets, and may limit upstream migration (von Finster 2000).
Needlerock Creek	Adult Chinook salmon have been documented approximately 18 km upstream of the mouth (Selkirk First Nation 2001). They have not been documented in the portion of the creek within the Traditional Territory. There are no large lakes in the drainage (Wilson and Associates 1999).
Glenlyon River	The Glenlyon River is a Chinook spawning stream with spawning located below the lake outlet (not within Traditional Territory; Mercer and Eiler 2004).
Rearing & Rearing Habitat Summary	
Mica Creek	Sampling in the lower reaches of Mica Creek, has not found juvenile Chinook outside of the adult extent (which is outside of the Traditional Territory; Wilson & Associates 1999). No sampling has been undertaken upstream of Tatlmain Lake, or in Tatlmain Creek. There is habitat data for the creek up to Tatlmain Lake, but not within the Traditional Territory (Wilson & Associates 1999).

Needlerock Creek	Juvenile Chinook have only been documented within the extent of adult salmon use, which lies outside of the LSCFN Traditional Territory (Wilson & Associates 1999). Sampling further upstream captured no fish. There is habitat data for the lower third of the creek, but no data for the portion within the Traditional Territory.
Glenlyon River	The Glenlyon River lies outside of the Traditional Territory, but it is a known salmon spawning stream and is therefore used by juvenile Chinook salmon for natal rearing. The tributary streams of Pass, Jar and Felix creeks may be used as non-natal rearing areas, but no habitat or sampling data exists for these streams.
Little Sheep Creek	There is no data for this creek.
Overwintering	
Open water conditions in Needlerock Creek have been documented at five locations in the winter (DFO 1995; Wilson & Associates 1999). Open water conditions also occur on Mica Creek, below Towhata Lake (DFO 1995; Wilson & Associates 1999). These areas are all outside of the LSCFN Traditional Territory.	

3.6.1 Other Information

- **Water Quality:** Water quality and habitat data has been collected by Wilson and Associates (1999) for Needlerock and Mica creeks (i.e. temperature, pH, dissolved oxygen, conductivity, and metals and nutrient analysis). A temperature logger was also installed in each creek from 1998-1999. Note these sites are outside of the LSCFN Traditional Territory.
- **Hydrology:** There are no Water Survey of Canada hydrometric stations in this watershed area. Wilson and Associates (1999) collected discharge data during the winter for Needlerock and Mica creeks.
- **Benthos:** Wilson and Associates (1999) collected benthic invertebrate data from Needlerock and Mica creeks (outside of LSCFN Traditional Territory).

3.6.2 Data Gaps

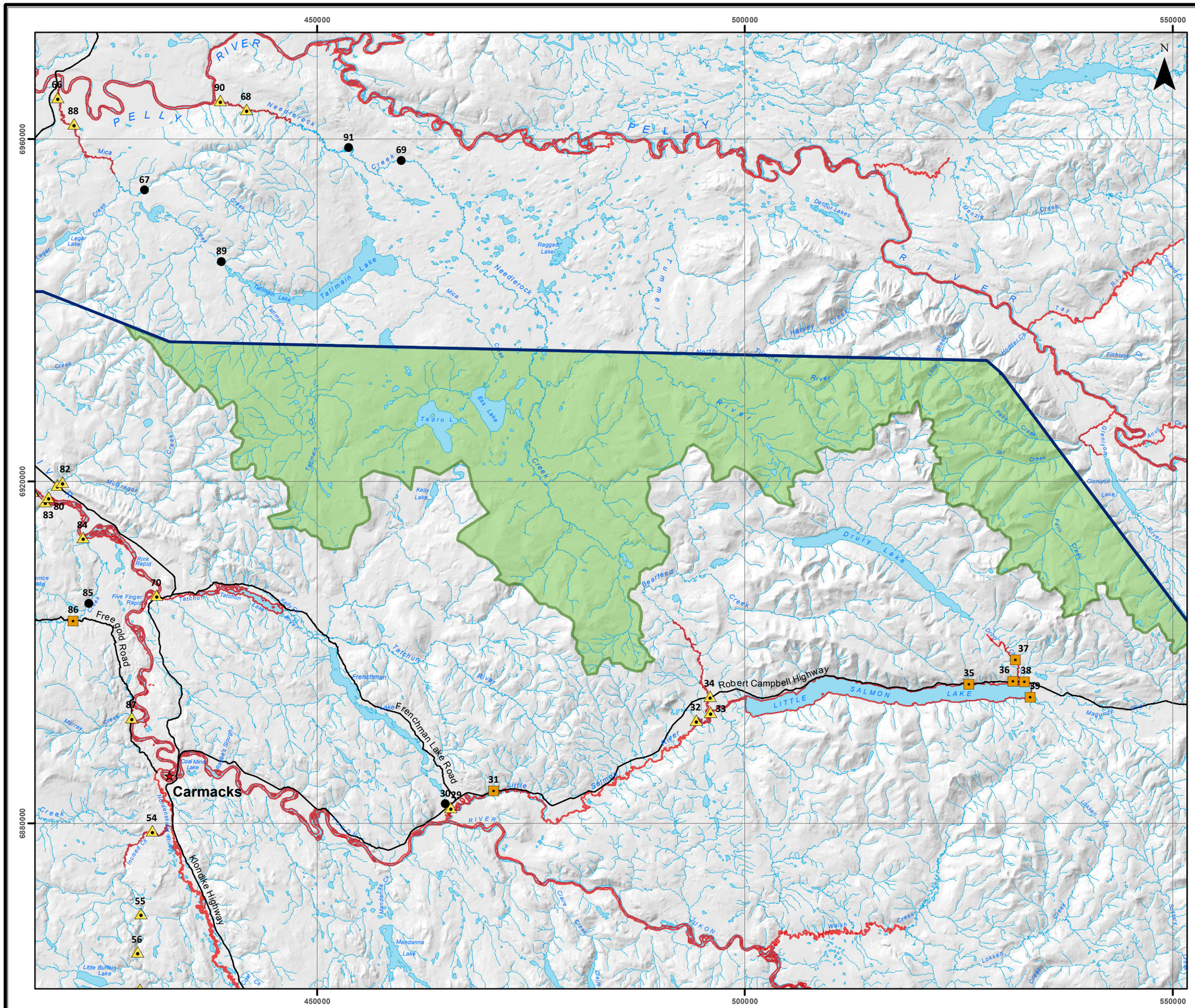
- **Spawning & Spawning Habitat**: Spawning has been well documented in the lower parts of the Pelly River tributaries (outside of the LSCFN Traditional Territory). A data gap exists for the Tummel River and its spawning potential; however, a large portion of this river lies outside of the Traditional Territory. If Chinook did use the Tummel River for spawning it is unlikely that their use would extend to the sections within the Traditional Territory, as is the similar case for Needlerock and Mica creeks.

- **Rearing & Rearing Habitat**: There is no sampling or habitat data for the Tummel River or its tributaries, or the upper reaches of Mica, Needlerock, or Tatlmain creeks; however, it is unlikely that juvenile Chinook use these upper reaches as they are relatively far from any known spawning locations. It is possible that juvenile Chinook hatched in the Glenlyon River may utilize Pass, Jar and Felix creeks as non-natal rearing habitat but sampling and habitat assessments are required to confirm this. There is also no habitat or sampling data on rearing in Little Sheep Creek.
- **Overwintering**: There is some winter water quality data for open water areas for many of the main streams, but little data is available for the smaller tributaries that may have potential rearing habitat (i.e. Pass, Jar, Felix, and Little Sheep Creek).
- **Other Information:** There is no additional habitat data (hydrological, benthos, water quality) for any of the streams within the Traditional Territory boundary.

3.6.3 Recommendations

To build upon the existing knowledge base of Chinook utilization within the watershed, the following activities are recommended;

- Tributaries with the greatest potential for non-natal rearing habitat should be investigated (fish sampling and habitat assessments), particularly Pass, Jar and Felix creeks which flow into the Glenlyon River, a salmon spawning stream.



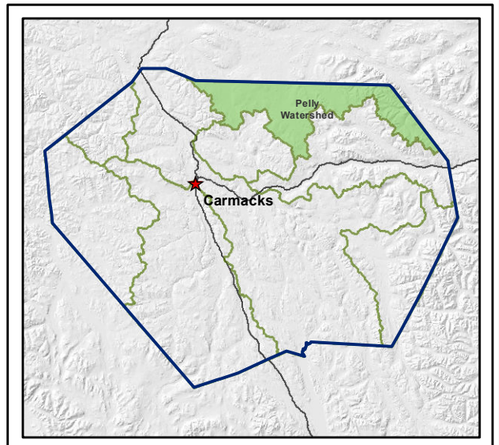


Figure 7. Pelly Watershed Area Existing Chinook Salmon Knowledge

Legend

- Juvenile Chinook Captured
- Freshwater Fish Captured
- No Fish Captured
- Watercourse Known Extent of Adult Chinook
- Waterbody Known Extent of Adult Chinook
- LSCFN Traditional Territory
- Pelly Watershed Area

0 5 10 15 20 25 Km

Drawn By: L. Grieve and M. Marjanovic
Checked By: M. Power and P. Tobler
Date: 31 May, 2011
Projection: NAD 1983 UTM Zone 08
EDI Project #: 10-YC-0058

Digital Data Sources:

Yukon digital elevation model provided courtesy of Yukon Government - Geomatics Yukon.

1:50,000 waterbodies, watercourses, and LSCFN Traditional Territory boundary, and Main Roadways from Yukon Geomatics Corporate Spatial Warehouse.

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Watershed Areas: Project specific watershed areas digitized by EDI using 1:50,000 watercourse and waterbody data along with DEM and contour data.

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3.7 Tatchun Watershed Area

The table below summarizes salmon and salmon habitat information for the Tatchun Watershed Area. For additional details on the information provided below, refer to the relevant source citations. See Figure 8 for a map summarizing the existing scientific salmon habitat utilization knowledge available for the Tatchun Watershed Area. For specific map point information refer to Appendix B using the point ID number.

Watershed Overview	
The Tatchun River is a small riffle-pool stream entering the Yukon River north of Carmacks. It is a lake headed system, draining Tatchun and Frenchman lakes. The Tatchun River was part of the Yukon River hatchery release program for many years. The Klondike Highway crosses the river near the confluence with the Yukon River and there is a territorial campground just upstream from the bridge. Access is also provided by the Frenchman Lake Road. See Figure 8 for a map summary of existing scientific salmon knowledge available for the Tatchun Watershed Area.	
Spawning & Spawning Habitat Summary	
Tatchun River	Spawning occurs up to Tatchun Lake with the main Chinook spawning grounds located approximately 4 - 5.5 km from the mouth (Walker et al. 1974; Otto 1998b). Spawning surveys have been conducted on foot since 1970-1997, followed by weir counts from 1997 to 2000 (JTC 2010). Otto (1998b) described the Tatchun River as having exceptionally productive spawning habitat. Beaver dams have been an issue in the past for salmon, and beaver management work has been undertaken to keep beavers out of the area and allow for upstream migration by adults (Walker et al. 1974; von Finster 2000).
Kelly Creek	Salmon have been seen in Kelly Creek by community members, but it is not clear whether spawning has actually occurred there (von Finster 2000). Beaver dams have been documented in the past, mostly at the Kelly Lake outlet (von Finster 2000). There is no habitat information for this creek.
Rearing & Rearing Habitat Summary	
Tatchun River	The river is heavily utilized by juvenile Chinook (Walker et al. 1974; Walker 1976; Otto 1998b). Generally, juveniles are abundant in the middle and lower sections of the creek, and absent in the upper section (Otto 1998b). This was attributed to more suitable habitat in the lower-mid sections, as there are abundant back channels, cutbanks, overhanging vegetation, root masses and large woody debris. Habitat has been well characterized and documented throughout the creek (Otto 1998b). No sampling or habitat assessments have been done on the tributaries to Tatchun River, Tatchun Lake or on the Tatchun River upstream of the lake, towards Frenchman Lake.

Overwintering
The Tatchun River provides year-round habitat for juvenile Chinook salmon (Walker 1976; NNRS 1977; Otto 1998b). Monitoring throughout the winter (Otto 1998b) found dissolved oxygen, temperature, and water levels were acceptable for overwintering juvenile salmon and other fish species (levels between 8.12 mg/L and 13.75 mg/L from November to April).

3.7.1 Other Information

- **Water Quality:** Monthly water quality data was collected at two locations on the Tatchun River from 1997 to 1998; one station was established at the outlet of the lake and a second station was set up 350 m upstream from the confluence with the Yukon River (Otto 1998b). Data included dissolved oxygen, pH, and temperature. Habitat characteristics were also noted along the entire river.

- **Hydrology:** There are no Water Survey of Canada hydrometric stations in this watershed area; however, stream velocities were measured at each water quality station mentioned above (Otto 1998a).

- **Benthos:** No benthos data has been collected for this stream. There are no CABIN sites in the watershed area.

3.7.2 Data Gaps

- **Spawning & Spawning Habitat**: Spawning has been well documented in the river below the lake, with on-foot surveys and weir counts since 1970; however, beaver dams have been a concern in the past and it is not clear what the current access status is (i.e. are there barriers to migration?). There is also no data to confirm whether spawning extends up the Tathcun River upstream of the lake, or into tributaries like Kelly Creek.

- **Rearing & Rearing Habitat**: There is no data on non-natal rearing areas for juvenile Chinook (i.e. tributaries of Tatchun River and Tatchun Lake).

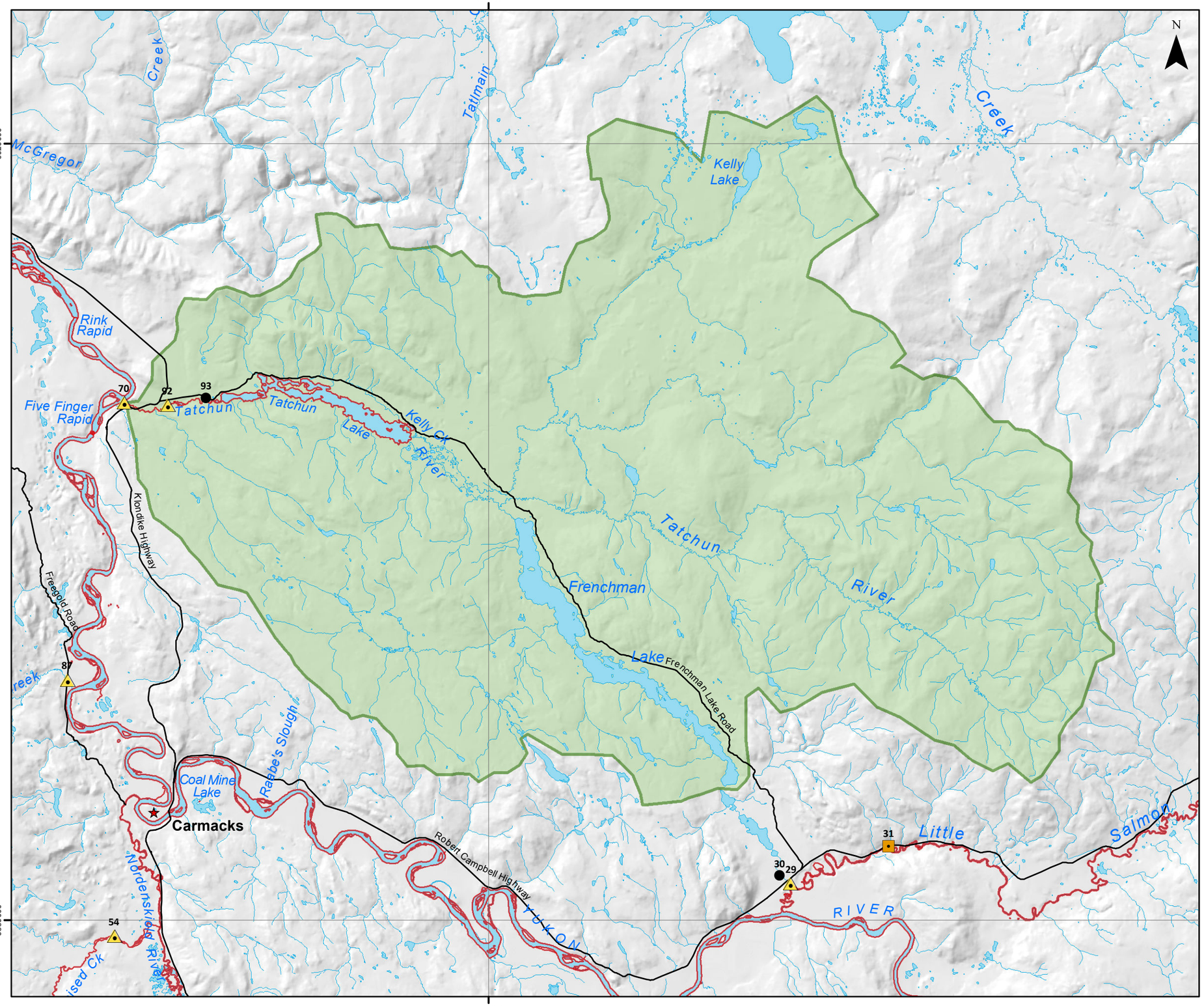
- **Overwintering**: There is overwintering data for the Tatchun River downstream of the lake (Otto 1998b), but there is no data for the river upstream of the lake. There is also no information on the overwintering potential of the various tributaries to the river and lake, which may or may not be used by juvenile Chinook.

- **Other Information:** Habitat characteristics including water quality and hydrology data have been well documented within Tatchun River downstream of the lake, but less is known about the habitat potential of the various tributaries. There is also no benthic invertebrate data for any areas in the watershed.

3.7.3 Recommendations

To build upon the existing knowledge base of Chinook utilization within the watershed, the following activities are recommended;

- Monitor beaver dams and potential barriers to spawners on the Tatchun River, and manage appropriately.
- Sample tributaries to the Tatchun River and Tatchun Lake for juvenile Chinook and assess habitat potential.
    - Where Chinook fry are captured within 50-100 m of the mouth additional investigation to map distribution and habitat limitations (i.e. beaver dams) could be conducted further upstream, from 500 m upwards to a couple kilometres depending on the stream.



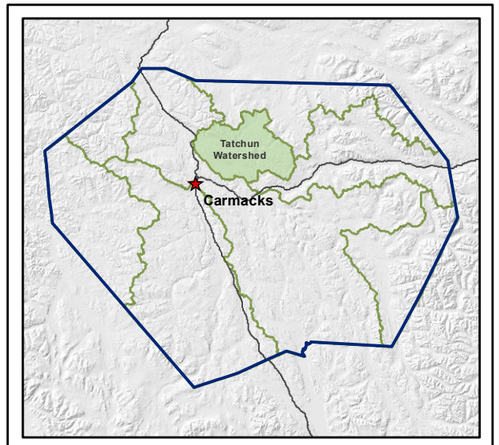


Figure 8. Tatchun Watershed Area Existing Chinook Salmon Knowledge

Legend

- Juvenile Chinook Captured
- Freshwater Fish Captured
- No Fish Captured
- Watercourse Known Extent of Adult Chinook
- Waterbody Known Extent of Adult Chinook
- LSCFN Traditional Territory
- Tatchun Watershed Area

0 5 10 Km

Drawn By: L. Grieve and M. Marjanovic
Checked By: M. Power and P. Tobler
Date: 18 March 2011
Projection: NAD 1983 UTM Zone 08
EDI Project #: 10-YC-0058

Digital Data Sources:

Yukon digital elevation model provided courtesy of Yukon Government - Geomatics Yukon.

1:50,000 waterbodies, watercourses, and LSCFN Traditional Territory boundary, and Main Roadways from Yukon Geomatics Corporate Spatial Warehouse.

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