



PEACE/WILLISTON
FISH & WILDLIFE
COMPENSATION
PROGRAM

BChydro 



The History of Fish Introductions (to 2005) in the Peace/Williston Fish and Wildlife Compensation Program Area.

A. R. Langston and E. B. Murphy
December 2008

The Peace/Williston Fish & Wildlife Compensation Program is a cooperative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

**Peace/Williston Fish and Wildlife Compensation Program, 1011 Fourth Ave.
3rd Floor, Prince George B.C. V2L 3H9**

Website: www.bchydro.com/pwcp/

This report has been approved by the Peace/Williston Fish and Wildlife Compensation Program Fish Technical Committee.

Citation: Langston, A. R. and E. B. Murphy. 2008. The History of Fish Introductions (to 2005) in the Peace/Williston Fish and Wildlife Compensation Program Area. Peace/ Williston Fish and Wildlife Compensation Program Report No. 325. 59p.

Author(s): Arne R. Langston¹ and Elizabeth B. Murphy²

Address(es): ¹ Peace/Williston Fish and Wildlife Compensation Program, 1011 Fourth Ave., 3rd Floor, Prince George, B.C. V2L 3H9
² British Columbia Conservation Foundation, #200A – 1383 McGill Rd., Kamloops, B.C. V2C 6K7

INTRODUCTION

Study purpose

This record of fish introductions (stocking) in the Peace/Williston Fish and Wildlife Compensation Program area was developed to provide a summary account of known and recorded fish introductions. Additionally, comments, background, and original rationale used to support stocking or stocking changes have been provided where possible. Involvement and recognition of government, the Peace/Williston Fish and Wildlife Compensation Program (PFWWCP), non-government groups, aboriginal groups and public groups has been noted.

Description of study area

Williston Reservoir (56° N latitude, 124° W longitude) is located approximately 140 km north of Prince George in northeast British Columbia, Canada (Figure 1). Williston Reservoir was created in 1968 by damming (W.A.C. Bennett Dam) the Peace River near Hudson's Hope, B.C. for hydroelectric generation. Approximately 22 km downstream of the W.A.C. Bennett Dam a second dam (Peace Canyon Dam) impounds water upstream to the base of the W.A.C. Bennett Dam creating Dinosaur Reservoir. The Peace River flows east to Lake Athabasca which lies within the Mackenzie River drainage system, which then flows north and discharges into the Arctic Ocean.

The Williston Reservoir watershed (Figure 1) is situated centrally and slightly north within the province of British Columbia. The reservoir has a catchment area of 69,930 km². The Omineca Mountains to the west, and Rocky Mountains to the east, contain the generally north to south lying Finlay and Parsnip reaches within the Rocky Mountain Trench. The two reaches are contained within a wide, flat-bottomed valley. Small lakes and meandering tributaries are numerous within the valley. The Peace Reach has a "V" shaped bottom and is much narrower and deeper than either the Finlay or Parsnip reaches. Steep-sloped sedimentary rock is predominant in the entrenched western half of the Peace Reach where the Peace River originally (prior to impoundment) flowed eastward breaking through the Rocky Mountains. The number of small lakes is much lower in the mountainous rocky terrain of the Peace Reach, and tributaries are often high gradient cold mountain streams. The eastern half of the Peace Reach extends into the Rocky Mountain Foothills, and contains lower gradient topography and geological features quite similar to those of the Finlay and Parsnip reaches. The small lakes and rivers within the watershed have a long history of fish introductions through stocking.

The Peace/Williston Fish and Wildlife Compensation Program area comprises the area upstream of the Peace Canyon Dam to the height of land within the Peace River drainage (Peace/Williston Fish and Wildlife Compensation Program 2000). The Program area encompasses the northern portion, and approximately 50% of the total area, of Region 7, Zone A (Omineca region). The Program area extends into a small portion of Region 7, Zone B (Peace region) along the Peace Reach of the Reservoir specifically within management units 7-31, 7-35, and 7-36. This report includes several lakes and streams that have had past PFWWCP involvement and are "nearby" but outside of the defined Program area (i.e. Pine Pass and Moberly Lake area). A few lakes in the "nearby" category (Boulder, Iver, and the Cameron Lakes) have been included as they may present special opportunities for PFWWCP in the future. A few lakes that have had some form of PFWWCP involvement in the

early years of the Program but are outside the Program area (i.e. Stewart and Inga lakes) are not included in this review.

Presentation of information (Albert Lake used as an example)

Albert Lake			
Location:	Parsnip Reach drainage, 129 km NW of Fort St. James.		
Species Present:	BT, CSU, LSU, RB.		
Management Unit:	07-28	UTM:	10.351497.6137068
Lake Surface Area:	329.5 ha.	Stream length:	
Watershed Code:	237-701100-35500	Waterbody Identifier:	00516NATR
Stocking History:			
<u>Date</u>	<u>Species</u>	<u>Number</u>	<u>Stock</u>
1991	RB	10000	Dragon
1991	RB	40009	Tunkwa
Comments:			
1. No PFWWCP involvement.			
2. Calais Lake fish population status, 1998 conducted by PFWWCP (PFWWCP report #189) inferred colonisation of Calais Lake resultant of migrating rainbow trout from Albert Lake.			

Gazetted Name: The “gazetted name” as it appears in the *Gazetteer of Canada*. In the example presented Albert Lake is the gazetted name. If the lake was also locally known by another name or “alias name”, that name would be presented in parentheses beside the gazetted name. All waterbodies presented are ordered alphabetically by Gazetted name, if no Gazetted name is available the most common alias has been selected.

Location: Location as referenced to the drainage reach the waterbody is located within and the nearest community. The drainage reach information can be used to locate the waterbody on one of the three detailed figures. Figure 3 presents location of Finlay Reach waterbodies, Figure 4 indicates Parsnip Reach waterbodies, the waterbodies within the Peace Reach area of Williston watershed and the Pine and Moberly River drainages are presented in Figure 5.

Species Present: The codes used to indicate species present are the standardised two and three character codes of the Ministry of Environment’s “Resources Information Standards Committee (RISC). A key to the RISC fish species codes is attached in Appendix 1.

Management Unit: The Management Unit specific geographic area of fish and wildlife management within the Province of BC. Region 07 refers to the Omineca-Peace Region, the accompanying two digit number represents a specific area. The locations of the Management units are depicted in graphic

form in the annual fresh water fishing and hunting regulations synopsis and provincial fish agencies web sites.

Watershed Code and Waterbody Identifier: A computer generated coding system providing unique numeral and alpha-numeric identification of lakes and rivers of BC. The numerical coding system is an integral component of the 1:50,000 watershed atlas, a computerised base map of aquatic features in the Province of BC. Waterbody identifier numbers are only used for lakes, whereas watershed codes are applied to both streams and lakes.

UTM: The UTM provides location coordinates of the mouth of the river, or outlet of the lake presented. Coordinates are presented in UTM (Universal Transverse Mercator) format.

Stocking History: Unless specifically noted in the comments section, fish rearing costs were assumed by the Province until the formation of the Freshwater Fisheries Society of BC (which assumed costs after 2003).

Stock: The stock identifies the genetic “heritage” of the introduced fish. The stock is identified by the place name of origin. A designation of AF signifies the population stocked are “all females”. A designation of 3N signifies that the fish stocked are “sterile” (non-reproductive).

Brook trout

There is only one source of brook trout eggs for brook trout, therefore, any brook trout stocked in the PFWWCP area are from Aylmer Lake. The designation under stock will indicate “Aylmer” as the stock.

Kokanee

There were two sources of kokanee stocked, “Hill Creek” from Arrow Reservoir and “Meadow Creek” from Kootenay Lake. At one time Hill Creek was stocked with kokanee from Meadow Creek, so “Hill Creek” kokanee could contain genetic components of “Meadow Creek” kokanee. In a few instances Kokanee stock is listed as “Williston”, these represent eggs collected from Williston Reservoir fish (Carbon and Dunlevy Creeks). It is possible the Carbon and Dunlevy kokanee were native Williston Reservoir wild stock, but they were more likely resultant from 1991 to 1995 “Hill Creek” source stockings to Dunlevy and Carbon Creeks. In 2002, kokanee eggs were collected from kokanee adults that were originated from Meadow Creek stock but raised in Sulphurous Lake, these fish are listed as Meadow Ck-Su as the “stock”.

Rainbow trout

Within the PFWWCP five stocks of rainbow trout (referred to here for explanatory purposes as “core” stocks) make up the majority of introductions; Badger Lake, Blackwater River, Gerrard River, Pennask Lake, and Tzenzaicut Lake. A single listing of one of these five “core” stock locations indicates the eggs and milt were collected directly from the specified lake or river. In some cases the stock will indicate one of these “core” stocks plus another location (e.g. Pennask Beaver). In these cases eggs from the “core” source (Pennask) were hatched and resultant fry were fin clipped and then released into the next lake (Beaver Lake) which in essence becomes a rearing facility. When adult fish return to spawn in Beaver Lake, the adults with fin clips (known Pennask origin) are collected to provide eggs and milt that would now carry the Pennask-Beaver designation. Other named locations (e.g. Tunkwa, Genier, Premier, Williston) represent “non-core” stocks of eggs and milt because their exact genetic

heritage is unknown as the particular lake contains various stocks of rainbow trout due to past stockings with “core” stocks and/or possible native stocks. If a stock is designated as a combination of “non-core” lakes (e.g. Tunkwa-Genier) fish eggs and milt collected from both Tunkwa and Genier Lakes were used. A designation of NRT signifies “native rainbow trout” indicating the fish could be a mix of untraceable genetic heritage. In the Albert Lake example, the first 10,000 fish stocked in 1991 were resultant of eggs taken from Dragon Lake rainbow trout, while the 40,009 remaining rainbow were from eggs collected from Tunkwa Lake rainbow trout.

Bull trout

Bull trout stocking was conducted on an experimental basis only by the now closed Peace Canyon Fish Hatchery. Gething Creek (Dinosaur Reservoir tributary) was the location eggs were collected from. Bull trout translocations by the PFWWCP involved moving bull trout holding/staging at the base of a waterfall (upstream migrational barrier) on Gething Creek, to upper portions of Gething Creek and its tributary, Gaylard Creek. Therefore, all bull trout introductions will list “Gething” as the stock.

Lake Trout

Lake trout were only stocked into Morfee and Tacheeda Lakes. The stock is listed as “Moat”. The term “Moat” has been used in this report to be consistent with the provincial release records database. “Moat” refers to the moat around the hatchery where the fish were reared. The lake trout actually originated from a lake in Riding Mountain National Park, Manitoba.

Information sources

Numerous sources have been accessed to provide the data for this report. Primary sources include the Ministry of Environment (MoE) Prince George and Fort St. John office files, MoE “*Data base release records*”, “*Field Data Information System*” (FDIS) and “*Lake and Stream Summary System*”, the Freshwater Fisheries Society of BC, the PFWWCP files and report series, and the records of the now closed Peace Canyon Fish Hatchery. The knowledge and memories of individuals involved in provincial fish culture, and local fish management for the past thirty years filled in additional informational gaps.

The Ministry of Environment main “Fisheries Inventory” web site available to the public as an informational resource is:

<http://srmwww.gov.bc.ca/fish/>

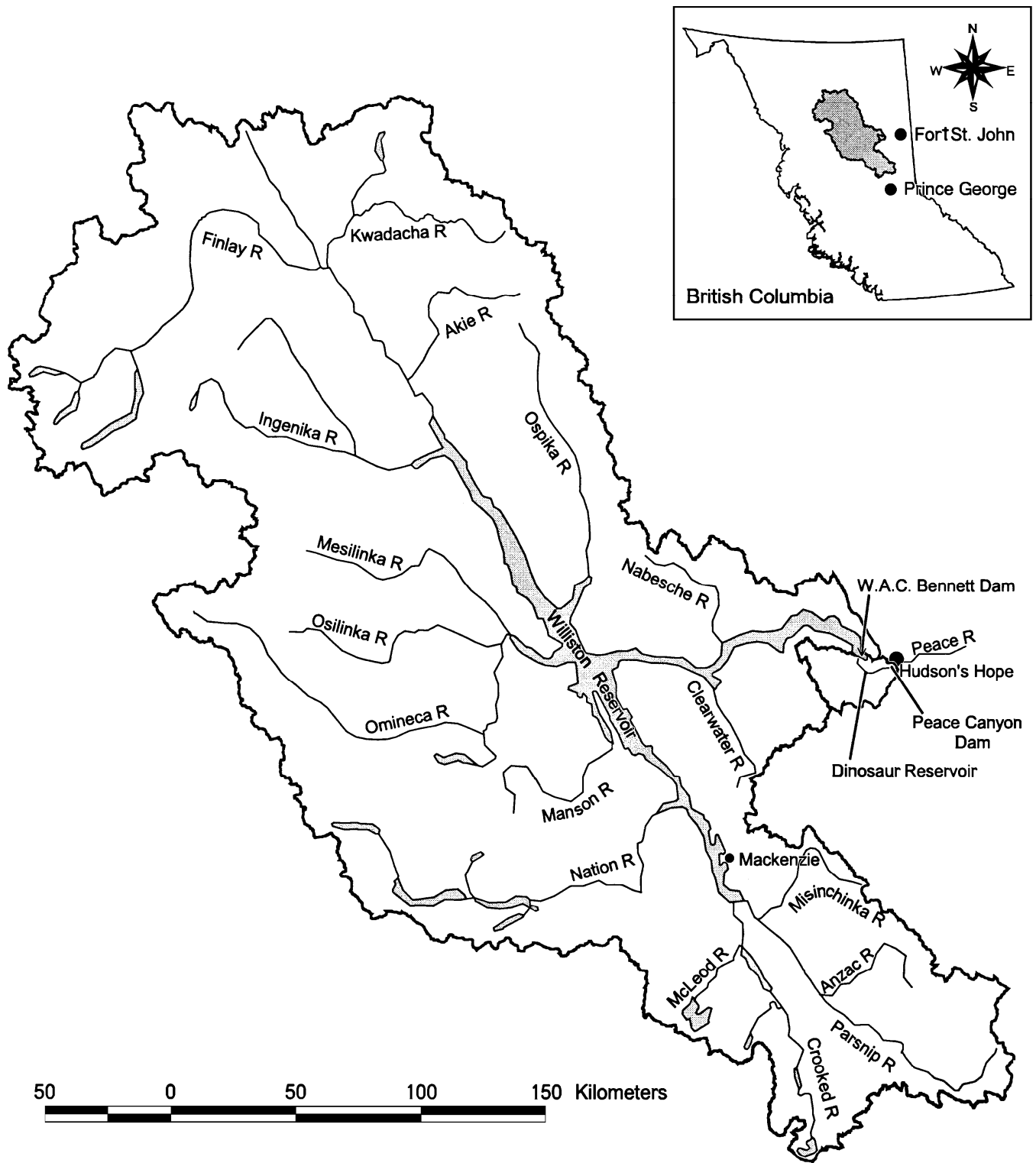


Figure 1. Williston Reservoir and Peace/Williston Fish and Wildlife Compensation Program Area.

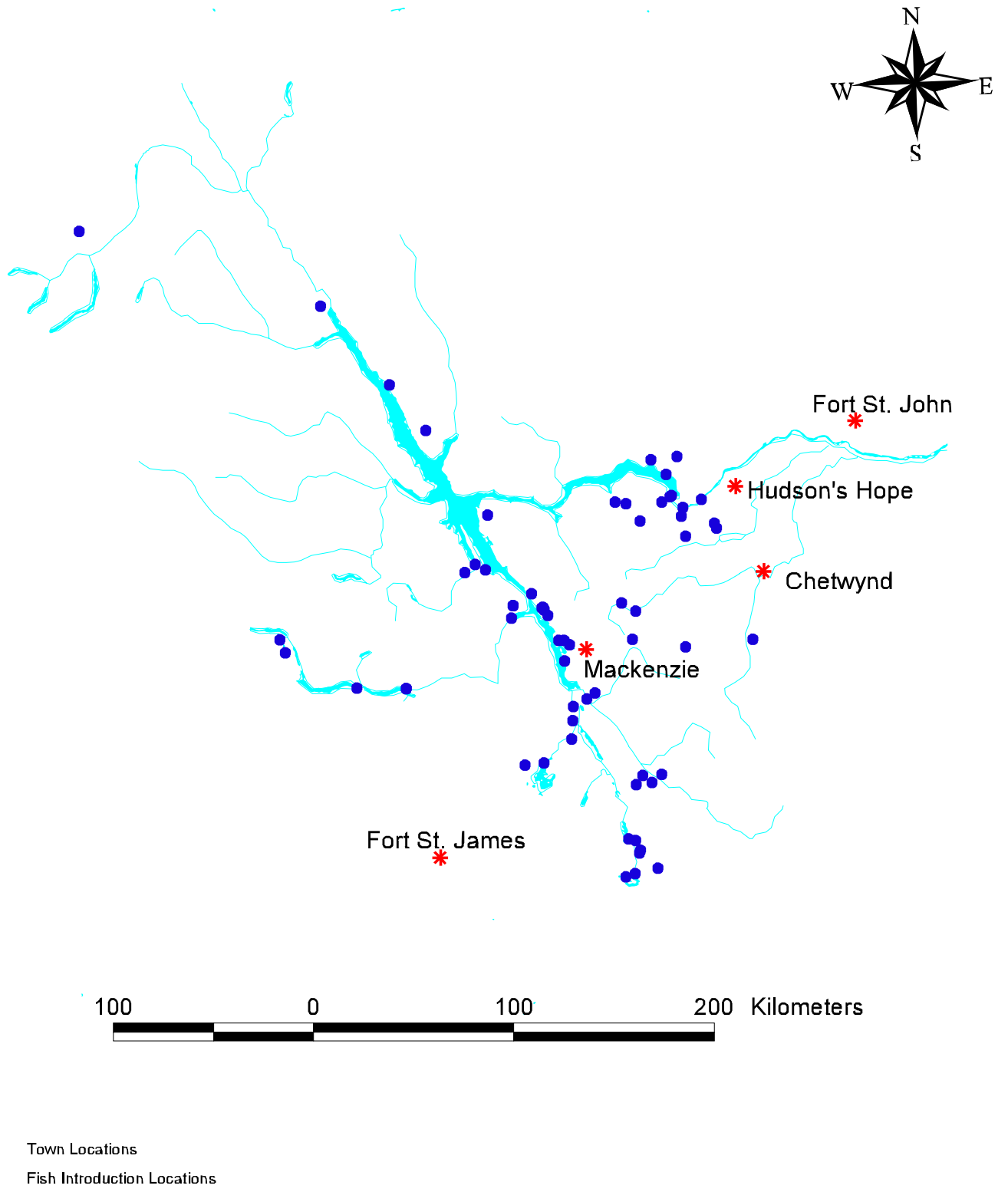
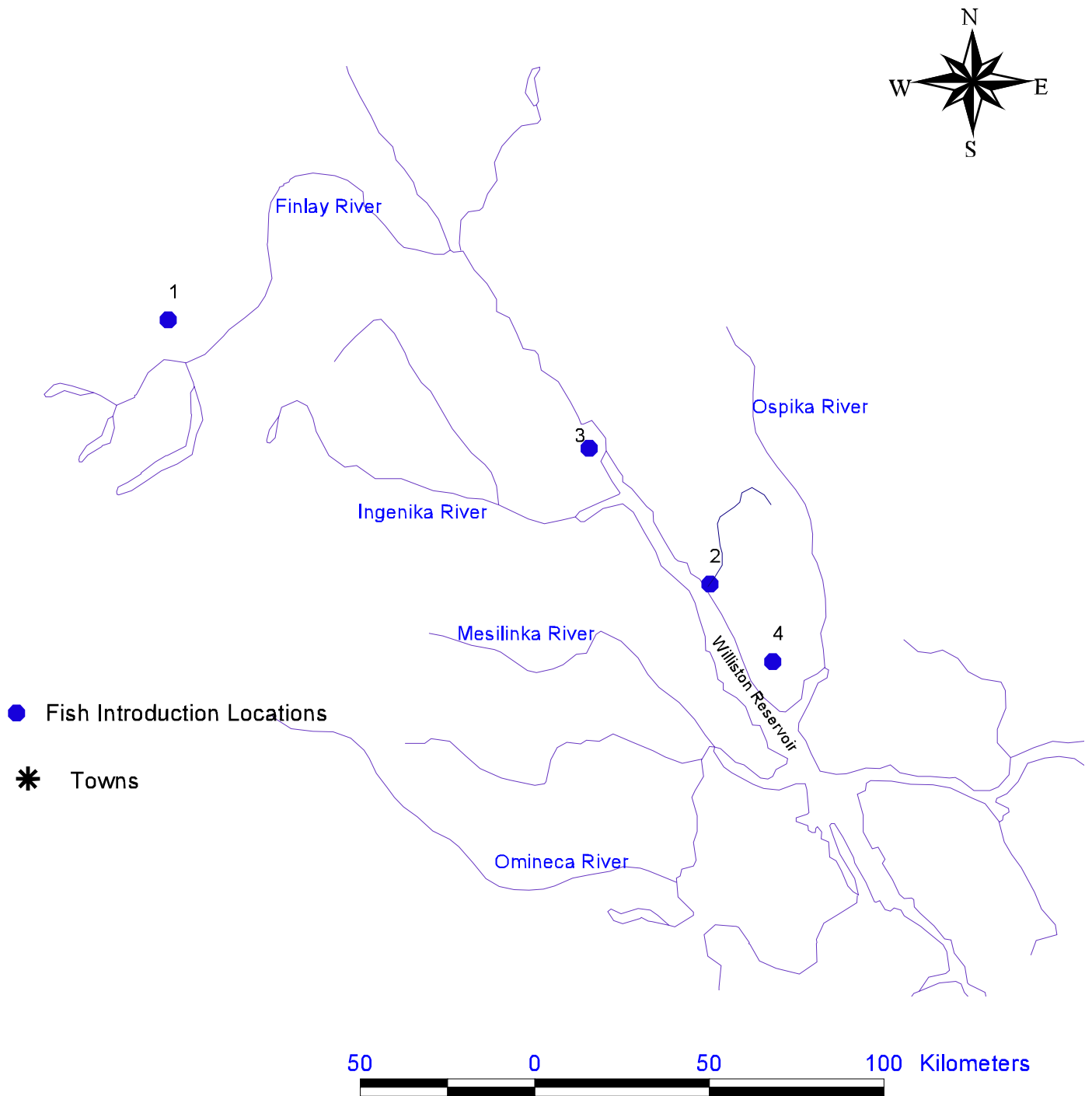


Figure 2. Locations of fish introductions within the Program area.



- 1 Black (Black's) Lake
- 2 Davis River
- 3 Ed Bird Lake
- 4 Tobin Lake

Figure 3. Locations of fish introductions in the Finlay Reach drainage.

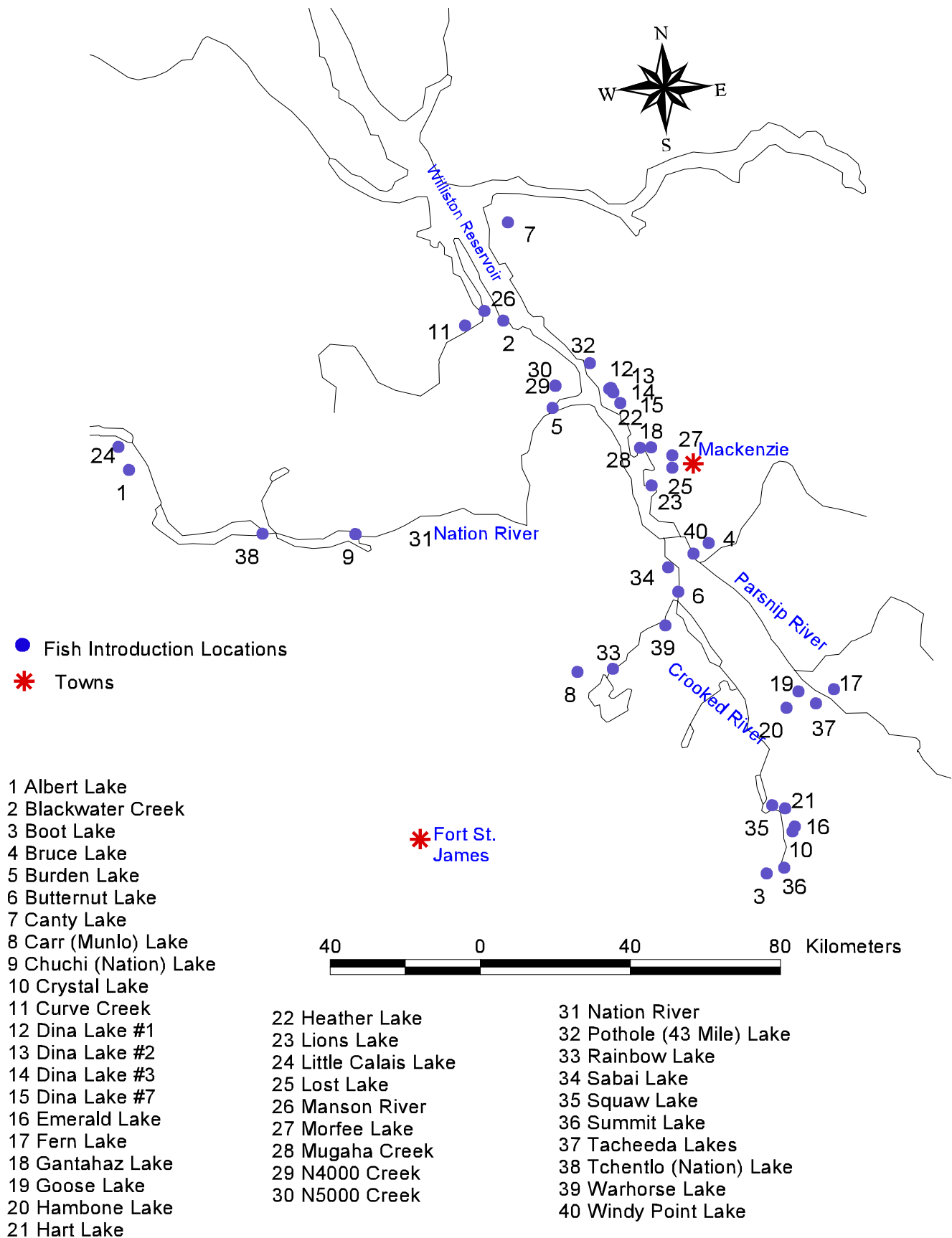
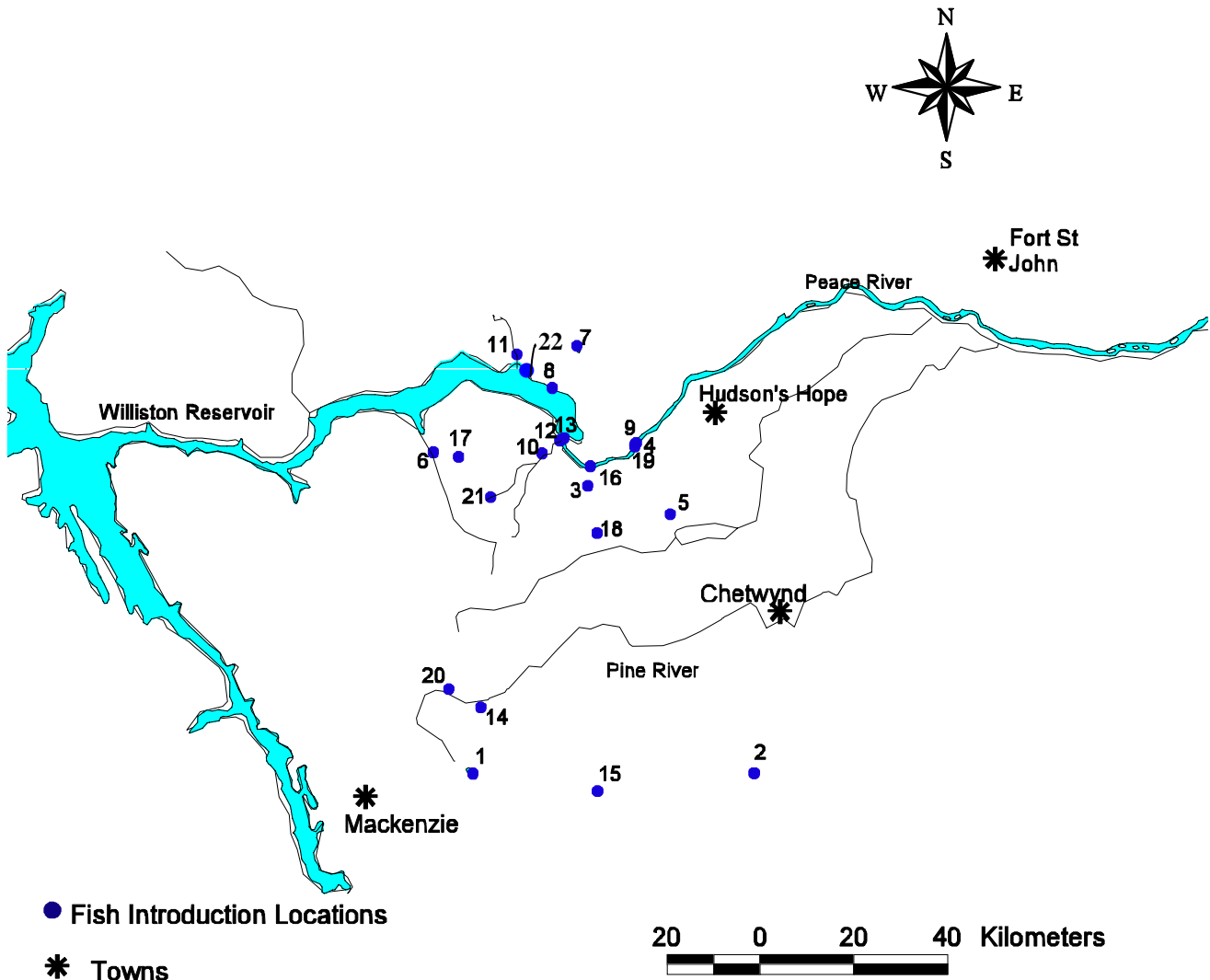


Figure 4. Locations of fish introductions in the Parsnip reach drainage.



- Fish Introduction Locations
 - * Towns
- | | | |
|---------------------------|----------------------|-----------------------|
| 1 Azouzetta Lake | 9 Dinosaur Reservoir | 17 Little Carbon Lake |
| 2 Boulder (Leep-Kow) Lake | 10 Dowling Creek | 18 Pete Lake |
| 3 Burnt Trail Creek | 11 Dunlevy Creek | 19 Portage Creek |
| 4 Bull Run Creek | 12 Gaylard Creek | 20 Simpson Lake |
| 5 Cameron Lakes | 13 Gething Creek | 21 Wright Lake |
| 6 Carbon Creek | 14 Heart Lake | 22 Gravel Hill Creek |
| 7 Chunamun Lake | 15 Iver Lake | |
| 8 Cust Creek | 16 Johnson Creek | |

Figure 5. Locations of fish introductions in the Peace Reach, Moberly and Pine River drainages.

Albert Lake

Location: 129 km NW of Fort St. James, Parsnip Reach.
Species Present: BT, CSU, LSU, RB.
Management Unit: 07-28 **UTM:** 10.351497.6137068
Lake Surface Area: 329.5 ha. **Stream length:**
Watershed Code: 237-701100-35500 **Waterbody Identifier:** 00516NATR

Stocking History:

Date	Species	Number	Stock
1991	RB	10000	Dragon
1991	RB	40009	Tunkwa

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1977.
2. PFWWCP paid for the transport and release costs (float plane) of stocked fish in 1991.
3. PFWWCP conducted survey of Calais Lake in 1998. *Calais Lake fish population status, 1998* (PFWWCP report #189) author infers rainbow trout colonization of Calais Lake is resultant of Albert Lake migratory rainbow trout.

Azouzetta Lake

Location: 29.5 km E NE of Mackenzie, Parsnip Reach.
Species Present: LSU, RB, Sucker (general).
Management Unit: 07-23, 07-30 **UTM:** 10.525193.6136343
Lake Surface Area: 186 ha. **Stream length:**
Watershed Code: 236-073000-61600 **Waterbody Identifier:** 00001PARS

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1982	RB	5000	Spahomin	1995	RB	5000	Blackwater GE
1984	RB	5000	NRT Premier	1997	RB	5000	Badger Tunkwa
1986	RB	5000	NRT Premier	1999	RB	5000	Pennask
1987	RB	5000	NRT Premier	2001	RB	5000	Premier
1989	RB	5000	Tunkwa	2003	RB	5000	Badger Tunkwa
1991	RB	5000	NRT Premier	2005	RB	5000	Tunkwa
1993	RB	5000	Tunkwa				

Comments:

1. Original survey completed by the Province of BC fisheries staff in 1952.
2. Azouzetta Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
3. PFWWCP confirmed with an “on-site” field survey (notes on file) that a height of land separates Azouzetta Lake drainage from the Pine River. Azouzetta Lake drains to the Misinchinka River. The inlet stream at the North end of the lake is very close to, but does not connect with, the Pine River drainage.

Black Lake (Black's)

Location: 350 km. NW of Mackenzie (tributary to Toodoggone River), Finlay Reach.
Species Present: RB.
Management Unit: 07-39 **UTM:** 9.619440.6345950
Lake Surface Area: 59.9 ha. **Stream length:**
Watershed Code: 239-667500-19200 **Waterbody Identifier:** 01568TOOD

Stocking History:

Date	Species	Number	Stock
1991	RB	5000	Dragon

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1978.
2. No PFWWCP involvement.

Blackwater Creek

Location: 55 km N NW of Mackenzie, Parsnip Reach.
Species Present: BB, BT, CCG, GR, LSU, MW, RB.
Management Unit: 07-29 **UTM:** 10.453247.6174011
Lake Surface Area: **Stream length:** 43.1 km.
Watershed Code: 230-913400 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1984	RB	2000	Williston
1986	RB	5032	Williston
1987	RB	5035	Williston
1988	RB	4000	Williston
1991	RB	3442	Blackwater

Comments:

1. No PFWWCP involvement.
2. Blackwater Creek was a rainbow trout brood source location for the Peace Canyon Hatchery in Hudson's Hope. Brood was collected starting in 1982 and continued at least until 1985. Stocking to Blackwater Creek was undertaken to compensate for the annual brood removal.

Boot Lake

Location: 7 km W NW of Summit Lake, Parsnip Reach.
Species Present: CSU, RB.
Management Unit: 07-24 **UTM:** 10.517078.6018372
Lake Surface Area: 15.2 ha. **Stream length:**
Watershed Code: 230-906800-97600-99700-9080 **Waterbody Identifier:** 01342CRKD

Stocking History:

Date	Species	Number	Stock
1991	RB	5000	NRT Premier
1993	RB	5000	Tunkwa
1997	RB	5000	Badger Tunkwa
1999	RB	5000	Pennask
2001	RB	5000	Premier
2003	RB	5000	Badger Tunkwa
2005	RB	5000	Tunkwa

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1988.
2. No PFWWCP involvement.

Boulder Lake (Leep-Kow Lake)

Location: 40 km S of Chetwynd, Pine River drainage.
Species Present: RB.
Management Unit: 07-22 **UTM:** 10.585486.6133897
Lake Surface Area: 15 ha. **Stream length:**
Watershed Code: 234-443900-26300 **Waterbody Identifier:** 00786PINE

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1993	RB	500	Pennask AF	1998	RB	1500	Blackwater GE
1993	RB	500	Pennask	2000	RB	1500	Blackwater DR AF3N
1993	RB	500	Pennask 3N	2001	RB	1500	Blackwater DR AF3N
1994	RB	2000	Premier DR	2002	RB	1500	Blackwater DR AF3N
1995	RB	2000	NRT Genier	2003	RB	1500	Blackwater DR 3N
1996	RB	1340	Blackwater DR 3N	2004	RB	1500	Pennask AF3N
1997	RB	1340	Blackwater DR 3N	2005	RB	1500	Pennask AF3N

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1989.
2. In 1993 a stocking trial was initiated with three RB stocks differentially marked by adipose fin, or left or right maxillary clips.
3. No PFWWCP involvement.

Bullrun Creek

Location: 6 km SW of Hudson's Hope, tributary to Peace River (immediately downstream of Dinosaur Reservoir).
Species Present: none.
Management Unit: 07-35 **UTM:** 10.562817.6204923
Lake Surface Area: **Stream length:** 3.7 km.
Watershed Code: 230-801900 **Waterbody Identifier:**
Stocking History:

*No documentation of any fish presence or introductions are available.

Comments:

1. In 1989 a diversion of Portage Creek and Bullrun Creek into Dinosaur Reservoir was contemplated to increase power production and provide additional spawning habitat to Dinosaur Reservoir fish (see PFWWCP report #72).
2. Surveys completed by fisheries consultants RL&L Environmental Services Ltd. in 1989 suggested no fisheries values would be impacted by diverting Bullrun Creek into Dinosaur Reservoir.
3. A survey was completed for PFWWCP by Canyon Contracting in 1998, which mapped elevations and identified a potential diversion route of both Portage and Bullrun Creeks to Dinosaur Reservoir.

Burden Lake

Location: 35 km NW of Mackenzie, Parsnip Reach.
Species Present: LKC, LSU, RB.
Management Unit: 07-29 **UTM:** 10.465316.6149335
Lake Surface Area: 247 ha. **Stream length:**
Watershed Code: 237-011288 **Waterbody Identifier:** 00287NATR

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1978	RB	15000	NRT Premier	1994	RB	2500	Pennask AF
1979	RB	15000	NRT Premier	1995	RB	3000	Pennask AF
1980	RB	10000	Badger	1996	RB	3000	Pennask Hath AF
1982	RB	5000	NRT Premier	1997	RB	3000	Pennask Hath AF
1984	RB	10000	NRT Premier	1998	RB	3000	Pennask AF
1986	RB	5000	NRT Premier	1999	RB	3000	Pennask Beav AF
1987	RB	5000	Tunkwa	2000	RB	3000	Pennask Penn AF
1988	RB	5000	Tunkwa	2001	RB	3000	Pennask BV AF
1989	RB	5000	Tunkwa	2002	RB	3000	Pennask BV AF
1990	RB	5000	Badger	2003	RB	3000	Pennask Penn AF
1991	RB	5000	NRT Premier	2004	RB	3000	Pennask Penn AF
1992	RB	5000	NRT Premier	2005	RB	3000	Pennask Penn AF
1993	RB	5000	Dragon/Tunkwa				

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1983.
2. Fish habitat enhancement potential and stocking assessment of Burden Lake completed by PFWWCP in 1991 (PFWWCP report # 116).

Burnt Trail Creek

Location: 24 km SW of Hudson's Hope, Dinosaur Reservoir tributary.
Species Present: RB.
Management Unit: 07-31 **UTM:** 10.552444.6196611
Lake Surface Area: **Stream length:** 11.3 km.
Watershed Code: 230-809800-18900 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1984	RB	6750	Dinosaur

Comments:

1. No PFWWCP involvement.
2. Burnt Trail Creek is outlet creek of Pete Lake, and tributary to Johnson Creek.
3. Peace Canyon Fish Hatchery conducted a trial stocking of rainbow trout upstream of impassable falls near the mouth of Johnson Creek.

Butternut Lake

Location: 34 km S of Mackenzie, Parsnip Reach.
Species Present: LKC, LW, LSU, RB.
Management Unit: 07-24 **UTM:** 10.493706.6097175
Lake Surface Area: 35.5 ha. **Stream length:**
Watershed Code: 230-906800-43900-31300 **Waterbody Identifier:** 00120CARP

Stocking History:

Date	Species	Number	Stock
1991	RB	10000	Dragon
1993	RB	5000	Dragon/Tunkwa
1994	RB	2500	Pennask AF
1995	RB	3000	Pennask AF
1997	RB	3000	Pennask Hath AF

Date	Species	Number	Stock
1999	RB	3000	Pennask Beav AF
2001	RB	3000	Pennask AF3N
2003	RB	3000	Pennask AF3N
2005	RB	3000	Pennask AF3N

Comments:

1. Original reconnaissance inventory of Butternut Lake completed by PFWWCP in 1990 (PFWWCP report # 99).
2. PFWWCP paid for the transport and release costs of stocked fish from 1991 – 1999.
3. Fish stocking assessment of Butternut Lake completed by PFWWCP in 1999 (PFWWCP report # 213).
4. PFWWCP assumed all costs associated with stocking Butternut Lake from 2001 to present.
5. Butternut Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
6. Fish stocking assessment of Butternut Lake completed by PFWWCP in 2004 (PFWWCP report # 304).

Cameron Lakes *North*

Location: 16 km S of Hudson's Hope, Moberly River drainage.
Species Present: LW, NP, WP.
Management Unit: 07-31 **UTM:** 10.568617.6192330
Lake Surface Area: 60.4 ha. **Stream length:**
Watershed Code: 230-744800-59100 **Waterbody Identifier:** 01126UPCE

Stocking History:

Date	Species	Number	Stock
1988	WP	671	Charlie Lake

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1986.
2. In 1988 an experimental translocation of adult walleye to North Cameron Lake from Charlie Lake was completed by the Province of BC fisheries staff and supported by the Habitat Conservation Trust Fund.
3. A gravel spawning shoal for walleye was constructed by the Province of BC fisheries staff and supported by the Habitat Conservation Trust Fund.
4. PFWWCP funded a study to assess the impact of beaver dams located between South and North Cameron Lakes and between Moberly Lake and South Cameron Lake (PFWWCP report # 267).

Cameron Lakes *South*

Location: 20.5 km S of Hudson's Hope, Moberly River drainage.
Species Present: NP, WSU
Management Unit: 07-31 **UTM:** 10.569764.6189826
Lake Surface Area: 70.8 ha. **Stream length:**
Watershed Code: 230-744800-59100 **Waterbody Identifier:** 01131UPCE

Stocking History:

*No documentation of any fish introductions are available.

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1986.
2. PFWWCP funded a study to assess the impact of beaver dams located between South and North Cameron Lakes and between Moberly Lake and South Cameron Lake (PFWWCP report # 267).

Carbon Creek

Location: 48 km. W of Hudson’s Hope, Peace Reach.
Species Present: GR, BT, KO, LSU, MW, RB, Sculpin (general).
Management Unit: 07-31 **UTM:** 10.519650.6205069
Lake Surface Area: **Stream length:** 57.4 km
Watershed Code: 230-846900 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1990	KO	106500	Hill Cr
1990	RB	10091	Blackwater
1991	KO	101798	Hill Cr
1991	RB	7989	Blackwater
1992	KO	193000	Hill Cr
1992	RB	16145	Blackwater
1993	KO	100000	Hill Cr
1993	RB	20100	Blackwater
1994	KO	105000	Hill Cr
1995	KO	100000	Hill Cr
1996	KO	100000	Meadow Cr
1997	KO	109000	Meadow Cr
1998	KO	100000	Meadow Cr
1998	KO	40	Meadow Cr

Comments:

1. Habitat surveys, and underwater fish counts completed 1989 – 1991 by PFWWCP (results presented in PFWWCP report # 70).
2. PFWWCP paid helicopter and transport costs for a 4 year 1990-1993 “Blackwater” strain rainbow trout stocking experiment.
Objective of experiment was to create a stream fishery in Carbon Creek. Stocking was cancelled after limited evaluations of the program suggested a stream fishery had not been created.
3. PFWWCP funded transport costs to stock kokanee to Carbon Creek 1990 – 1998. The cost to produce kokanee in hatcheries was assumed by the Province of BC with some hatchery upgrades to facilitate kokanee production at the Loon Creek facility funded by the PFWWCP.
4. PFWWCP excavated, and added spawning gravel to a side channel of Carbon Creek primarily for anticipated spawning kokanee recruits from the stocking program (PFWWCP report #81). Channel subsequently blocked by beaver dams. PFWWCP is awaiting evidence of kokanee escapement to the area prior to considering re-activation of the channel. Adult kokanee (approximately 60) were observed near the mouth of the spawning channel once in the late 1990’s; however, no kokanee spawners have been observed in Carbon Creek during detailed aerial surveys 2001 – 2005.
5. Kokanee stocking program completed 1998. Kokanee stocking program was evaluated by; Williston Reservoir stocked kokanee spawning assessment 1994 (PFWWCP report #176), Williston Reservoir hydro acoustic survey completed in 2000 (PFWWCP report #274), and spawning kokanee enumeration counts (helicopter based) scheduled for 2002 - 2006.
6. Kokanee (40) reared in Hudson’s Hope school released by students in 1998 into Carbon Creek side channel as part of the *Kokanee in the Classroom* project.

Carr Lake (Munlo)

Location: 66 km SW of Mackenzie, Parsnip Reach.
Species Present: RB
Management Unit: 07-24 **UTM:** 10.462709.6075090
Lake Surface Area: 8.3 ha. **Stream length:**
Watershed Code: 230-9068005560061400-3640 **Waterbody identifier:** 00711CARP

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1982	RB	5000	NRT Premier	1993	RB	2500	Dragon/Tunkwa
1983	RB	5000	Dragon	1995	RB	1500	Pennask AF
1985	RB	5000	NRT Premier	1997	RB	1500	Pennask Hath AF
1987	RB	2500	Tunkwa	1999	RB	1500	Pennask Beav AF
1989	RB	2500	Tunkwa	2001	RB	1500	Pennask BV AF
1991	RB	2500	NRT Premier	2003	RB	1500	Pennask Penn AF

Comments:

1. No PFWWCP involvement.

Chuchi Lake (Nation Lakes)

Location: 82 km. N NW of Fort St. James, Parsnip Reach.
Species Present: BB, CSU, LSU, LT, LW, MW, NSC, PCC, CAS, PW, RB, RSC, CCG, WSU.
Management Unit: 07-28 **UTM:** 10.411261.6116674
Lake Surface Area: 4672.8 ha. **Stream length:**
Watershed Code: 237 **Waterbody Identifier:** 01158NATR

Stocking History:

Date	Species	Number	Stock
1990	RB	4000	Gerrard
1991	RB	5580	Gerrard
1992	RB	13310	Gerrard

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1975.
2. The PFWWCP paid all helicopter costs to stock Gerrard rainbow trout into Chuchi and Tchentlo lakes (Nation Lakes).
3. Stocking of Gerrard rainbow trout was intended as an experiment to determine if Gerrard rainbow trout would attain a large size in the absence of kokanee as prey, and switch diet to lake whitefish. To date no reports of “unusually” large rainbow trout have been received. No formal evaluation of the Gerrard rainbow stocking project has occurred.

Chunamun Lake (formerly named Chinaman Lake)

Location: 22 km N NW of Hudson's Hope, near Peace Reach.
Species Present: BT, RB.
Management Unit: 07-35 **UTM:** 10.551434.6226480
Lake Surface Area: 42.7 ha. **Stream length:**
Watershed Code: 230-786200-94600 **Waterbody Identifier:** 00552UPCE

Stocking History:

Date	Species	Number	Stock
1982	RB	5000	NRT Premier
1988	RB	4000	Dragon
1989	RB	4000	Tunkwa
1990	RB	4000	NRT Premier
1992	RB	5000	NRT Premier
1993	RB	5000	Dragon/Tunkwa
1994	RB	5000	Tunkwa
1995	RB	5000	Tunkwa GE
1996	RB	5000	Beaver
1997	RB	4710	Blackwater DR 3N
1998	RB	2000	Pennask Beav AF 3N
1999	RB	2000	Pennask AF3N
2000	RB	2500	Pennask AF3N
2000	RB	2500	Pennask AF3N
2001	RB	2500	Pennask AF3N
2002	RB	2500	Pennask AF3N
2003	RB	2500	Pennask AF3N
2004	RB	2500	Pennask AF3N
2005	RB	2500	Blackwater 3N

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1984.
2. PFWWCP staff conducted winter oxygen survey March 1992, data provided to the Province of BC fisheries staff (Fort St. John).
3. A report on file refers to letters on file in the Province of BC fisheries staff office (Fort St. John) indicating the lake was stocked prior to 1982.
4. Official lake drainage is via Farrel Creek to the Peace River.

Crystal Lake

Location: 10 km S SE of Bear Lake, Parsnip Reach.
Species Present: EB, LKC, RB.
Management Unit: 07-16 **UTM:** 10.524397.6029774
Lake Surface Area: 37 ha. **Stream length:**
Watershed Code: 230-906800-97600-75900 **Waterbody Identifier:** 01107CRKD

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1976	RB	10000	Pennask	1995	RB	1500	Pennask AF
1978	RB	5000	NRT Premier	1995	EB	5000	Aylmer
1979	RB	5000	NRT Premier	1996	EB	5000	Aylmer
1981	RB	5000	NRT Premier	1996	RB	1500	Pennask Hath AF
1982	RB	5000	NRT Premier	1997	RB	1500	Pennask Hath AF
1983	RB	5000	NRT Premier	1997	EB	3000	Aylmer
1985	RB	5000	NRT Premier	1998	EB	5000	Aylmer 3N
1986	RB	2500	NRT Premier	1998	RB	1500	Pennask AF
1987	RB	2500	Tunkwa	1999	RB	1500	Pennask Beav AF
1988	RB	2500	Tunkwa	2000	EB	5000	Aylmer AF3N
1989	RB	2500	Pennask Hath AF	2000	RB	1500	Pennask Penn AF
1990	EB	5000	Aylmer	2001	EB	5000	Aylmer AF3N
1990	RB	10000	Dragon	2001	RB	1500	Pennask BV AF
1991	EB	5000	Aylmer	2002	EB	5000	Aylmer AF3N
1991	RB	5000	Dragon	2002	RB	1500	Pennask AF
1992	EB	5000	Aylmer	2003	EB	5000	Aylmer AF3N
1992	RB	2500	NRT Premier	2003	RB	1500	Pennask Penn AF
1993	RB	2500	Tunkwa	2004	EB	5000	Aylmer AF3N
1993	EB	5000	Aylmer	2004	RB	1500	Pennask AF
1994	EB	5000	Aylmer	2005	EB	5000	Aylmer AF3N
1994	RB	2500	Tunkwa	2005	RB	1500	Pennask AF

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1961.
2. Site investigated in 1992 for a possible “upwelling station” to alleviate “egg bound” condition. Determined “upwelling station” would not be feasible due to lack of nearby electricity for a pump.
3. No PFWWCP involvement in stocking program.

Dina Lake #1 (Dina #1, Dina Lakes)

Location: 25 km N NW of Mackenzie, Parsnip Reach.
Species Present: EB, LSU, PW, RB, LKC.
Management Unit: 07-30 **UTM:** 10.480658.6153999
Lake Surface Area: 158.3 ha. **Stream length:**
Watershed Code: 230-903300-05100 **Waterbody Identifier:** 00357PARA

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1980	EB	30000	Aylmer	1996	EB	20000	Aylmer
1981	EB	15000	Aylmer	1996	RB	20000	Beaver
1987	RB	20000	Tunkwa	1997	EB	12500	Aylmer
1988	RB	25000	Tunkwa	1997	RB	20000	Badger Tunkwa
1989	RB	20000	Tunkwa	1998	EB	15000	Aylmer
1990	RB	20000	Badger	1998	RB	20000	Badger Tunkwa
1991	EB	20000	Aylmer	1998	EB	5000	Aylmer 3N
1991	RB	20000	NRT Premier	1999	EB	20000	Aylmer AF3N
1991	EB	11235	Aylmer	1999	RB	20000	Pennask
1992	EB	15019	Aylmer	2000	RB	20000	NRT Premier
1992	RB	20000	NRT Premier	2001	RB	5385	NRT Dragon
1993	EB	20000	Aylmer	2001	RB	14615	Premier
1993	RB	20000	Tunkwa	2002	RB	20000	Badger Tunkwa
1994	EB	20000	Aylmer	2003	RB	20000	Badger Tunkwa
1994	RB	20016	Tunkwa	2004	RB	20000	Tunkwa
1995	EB	20000	Aylmer	2005	RB	20000	Tunkwa
1995	RB	20000	NRT Genier				

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1983.
2. Fish habitat enhancement potential and stocking assessment of Dina Lake #1 completed 1991 (PFWWCP report # 117).
3. PFWWCP performed enhancement work on inlet stream (Dina Creek) to create 400 m spawning channel with public viewing trail 1992 - 1993.
4. Fish stocking assessment of Dina Lake #1 completed 1998 (PFWWCP report # 194).
5. Dina Lake #1 is the location of a PFWWCP research project directed at pygmy whitefish (PFWWCP reports #245, 246 for the year 2000 research, and reports #279, 280 for the year 2001 research).
6. Dina Lake #1 was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
7. Recorded presence of lake whitefish and reidside shiners in PFWWCP reports are fish identification errors. Redside shiners reported in previous Province of BC fisheries staff report were lake chub, and one lake whitefish record (1991 PFWWCP survey) was a misidentification of a pygmy whitefish.

Dina Lake #3 (Dina #3, Dina Lakes)

Location: 27 km NW of Mackenzie, Parsnip Reach.
Species Present: LKC, RB.
Management Unit: 07-03 **UTM:** 10.481666.6153046
Lake Surface Area: 17.2 ha. **Stream length:**
Watershed Code: 230-903300-05100-47300 **Waterbody Identifier:** 00369PARA

Stocking History:

Date	Species	Number	Stock
1992	RB	5000	Dragon
1993	RB	2500	Tunkwa
1994	RB	2500	Tunkwa
1996	RB	2500	Badger Tunkwa
1998	RB	2500	Badger Tunkwa
2000	RB	2500	NRT Premier
2002	RB	2500	Badger Tunkwa
2004	RB	2500	Tunkwa

Comments:

1. Original reconnaissance inventory of Dina Lake #3 completed by PFWWCP in 1992 (PFWWCP report # 111).
2. Initial stocking (1992, 1993) completed by members of Mackenzie Fish and Game Association carrying in fish by buckets. Subsequent stockings completed by helicopter.
3. PFWWCP funded the transport and release costs of stocked fish from 1992 – 1998.
4. PFWWCP completed enhancement work on inlet stream (1996 -1998) to create spawning habitat. Assistance provided by Mackenzie Fish and Game Association, Mackenzie High school students, Mackenzie Nature observatory, and Mackenzie snowmobile club (Rocky Mountain Riders).
5. PFWWCP performs annual low effort maintenance (1999 to present) ensuring spawner access to inlet is not blocked by beaver dam or silt build up at mouth.
6. PFWWCP assumed all costs associated with stocking this lake 2000 to present.
7. Fish stocking assessment of Dina Lake #3 completed 2001 (PFWWCP report #282).
8. Dina Lake #3 was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
9. Fish stocking assessment of Dina Lake #3 completed 2005 (PFWWCP report *in prep.*).

Dina Lake #7 (Dina Lakes, Dina #7)

Location: 25 km NW of Mackenzie, Parsnip Reach.
Species Present: RB.
Management Unit: 07-30 **UTM:** 10.481729.6152907
Lake Surface Area: 6.9 ha. **Stream length:**
Watershed Code:230-903300-05100-47300-3890 **Waterbody Identifier:** 00373PARA

Stocking History:

Date	Species	Number	Stock
1992	RB	3000	Pennask Hath AF
1993	RB	1500	Pennask AF
1994	RB	1500	Pennask AF
1996	RB	1500	Pennask Hath AF
1998	RB	1500	Pennask AF
2000	RB	1500	Pennask Penn AF
2002	RB	1500	Pennask AF3N
2004	RB	1500	Pennask AF3N

Comments:

1. Original reconnaissance inventory of Dina Lake #7 completed by PFWWCP in 1991 (PFWWCP report # 105).
2. Initial stockings 1992 and 1993 completed by members of Mackenzie Fish and Game Association carrying in fish by buckets. Subsequent stockings completed by helicopter.
3. PFWWCP paid for the transport and release costs of stocked fish from 1992 – 1998.
4. PFWWCP assumed all costs associated with stocking this lake 2000 to present.
5. Fish stocking assessment of Dina Lake #7 completed 2001 (PFWWCP report #281).
6. Dina Lake #7 was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
7. Fish stocking assessment of Dina Lake #7 completed 2005 (PFWWCP report *in prep.*).

Dinosaur Reservoir Comments (continued):

14. PFWWCP installed pilot floating debris cover (small log booms) in select Dinosaur Reservoir locations in 2002, and 2003 (PFWWCP report # 299).
15. PFWWCP established “index sites” along near shore zones of Dinosaur Reservoir and conducted “boat electroshocking” fish presence and absence surveys in 2001 – 2003 (PFWWCP reports # 287, 297).
16. Records indicate rare presence of northern pikeminnow, spoonhead, and mottled sculpins in the Peace River in the current reservoir location prior to impoundment. No new record of their occurrence suggests these species are no longer present in Dinosaur Reservoir.

Dowling Creek

Location: 25 km W of Hudson’s Hope, tributary to Gething Creek and Dinosaur Reservoir.
Species Present: BT, RB.
Management Unit: 07-31 **UTM:** 10.542962.6203897
Lake Surface Area: **Stream length:** 23.7 km
Watershed Code: 230-815600-25300 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1985	BT	430	Gething

Comments:

1. A one time experimental bull trout stocking by the Peace Canyon Fish Hatchery. Bull trout brood were collected at Gething Creek at the base of the first impassable waterfall.
2. PFWWCP staff electrofished a site on Dowling Creek (1998 – 2002, 2005) approximately 1 km upstream of its confluence with Gething Creek to evaluate Gething Creek 1993, 1997, and 1999 bull trout translocation project (PFWWCP report *in prep.*).
3. Rainbow trout population is of hatchery origin, resultant from rainbow trout migrating from Gething Creek.

Ed Bird Lake

Location: 212 km NW of Mackenzie (3 km N of Tsay Keh village), Finlay Reach.
Species Present: LKC, LSU, RB.
Management Unit: 07-40 **UTM:** 10.376394.6308884
Lake Surface Area: 196 ha. **Stream length:**
Watershed Code: 230-998800 **Waterbody Identifier:** 00053FINA

Stocking History:

Date	Species	Number	Stock
1984	RB	5000	NRT Premier
1985	RB	5000	NRT Premier
1987	RB	2500	Dragon

Date	Species	Number	Stock
1988	RB	5000	Dragon
1991	RB	5000	Dragon

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1981.
2. No PFWWCP involvement.

Emerald Lake

Location: 8 km S SE of Bear Lake, Parsnip Reach.
Species Present: RB.
Management Unit: 07-16 **UTM:** 10.525055.6031073
Lake Surface Area: 13.6 ha. **Stream length:**
Watershed Code: 230-906800-97600-74400 **Waterbody Identifier:** 01100CRKD

Stocking History:

Date	Species	Number	Stock
1984	RB	5000	NRT Premier
1985	RB	5000	NRT Premier
1986	RB	2500	NRT Premier
1987	RB	2500	Tunkwa
1988	RB	2500	Tunkwa
1989	RB	2500	Tunkwa
1990	RB	10000	Dragon
1991	RB	10000	Dragon
1992	RB	5000	Dragon
1993	RB	5000	Dragon
1994	RB	5000	Premier DR

Date	Species	Number	Stock
1995	RB	5000	Premier DR
1996	RB	5000	NRT Dragon
1997	RB	5000	Tzenzaicut DR
1998	RB	5000	NRT Dragon
1999	RB	5000	NRT Dragon
2000	RB	5000	Badger Tunkwa
2001	RB	5000	Badger Tunkwa
2002	RB	5000	Dragon
2003	RB	5000	Dragon
2004	RB	5000	Dragon
2005	RB	3500	Blackwater DR

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1985.
2. Site investigated in 1992 for a possible “upwelling station” to alleviate “egg bound” condition. Determined “upwelling station” would not be feasible due to lack of nearby electricity for a pump.

Fern Lakes

Location: 73 km SE of Mackenzie, Parsnip Reach.
Species Present: Chub (General), Dace (General), LSU, RB.
Management Unit: 07-23 **UTM:** 10.537188.6068541
Lake Surface Area: 83 ha. **Stream length:**
Watershed Code: 236-358400 **Waterbody Identifier:** 00476PARS

Stocking History:

Date	Species	Number	Stock
1978	RB	7500	Beaver
1979	RB	10000	Badger Beaver
1980	RB	10000	Badger Beaver
1981	RB	10000	Beaver
1982	RB	5000	NRT Premier
1983	RB	5000	Dragon
1984	RB	5000	NRT Premier

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1976.
2. No PFWWCP involvement.
3. PFWWCP staff attempted access in 1996. Noted access road was overgrown and impassable by 4 wheel drive vehicle at that time.

Gantahaz Lake

Location: 5 km W NW of Mackenzie, Parsnip Reach.
Species Present: EB, LKC, MW.
Management Unit: 07-30 **UTM:** 10.491195.6137337
Lake Surface Area: 40.1 ha. **Stream length:**
Watershed Code: 230-905100-04500-32600 **Waterbody Identifier:** 00762PARA

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1976	EB	15000	KTH	1992	EB	15000	Aylmer
1978	EB	20000	Aylmer	1993	EB	15000	Aylmer
1979	EB	20000	Aylmer	1994	EB	15000	Aylmer
1980	EB	20000	Aylmer	1995	EB	15000	Aylmer
1981	EB	15000	Aylmer	1996	EB	15000	Aylmer
1982	EB	10000	Aylmer	1997	EB	8000	Aylmer
1983	EB	15000	Aylmer	1998	EB	15000	Aylmer 3N
1984	EB	15000	Aylmer	1999	EB	15000	Aylmer AF3N
1985	EB	15000	Aylmer	2000	EB	15000	Aylmer AF3N
1986	EB	15000	Aylmer	2001	EB	15000	Aylmer AF3N
1987	EB	15000	Aylmer	2002	EB	15000	Aylmer AF3N
1988	EB	15000	Aylmer	2003	EB	15000	Aylmer AF3N
1989	EB	15000	Aylmer	2004	EB	15000	Aylmer AF3N
1990	EB	15000	Aylmer	2005	EB	15000	Aylmer AF3N
1991	EB	15000	Aylmer				

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1970.
2. Fish habitat enhancement potential and stocking assessment of Gantahaz Lake completed 1991 (PFWWCP report # 119).
3. PFWWCP performed enhancement work by adding gravel near boat launch site to create a spawning platform for “egg-bound” brook trout.
4. PFWWCP performed creel survey of the 1992/ 93 ice fishery (PFWWCP report # 71).
5. PFWWCP report #119 indicated lake whitefish presence. PFWWCP studies in 2000 with Dr. Don McPhail (Univ. of BC) confirmed species present is a “robust” form of mountain whitefish, not lake whitefish.
6. The pre-1990 Province of BC fisheries staff reports indicate the presence of numerous fish species including, suckers, northern pikeminnow, peamouth chub, and redbside shiner. Based on PFWWCP studies none of these species are believed present in Gantahaz Lake.

Gaylard Creek

Location: 23 km W of Hudson's Hope, tributary to Gething Creek and Dinosaur Reservoir.
Species Present: BT, RB.
Management Unit: 07-31 **UTM:** 10.546934.6206437
Lake Surface Area: **Stream length:** 33.8 km.
Watershed Code: 230-815600-04500 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1983	RB	3150	Modeste
1994	BT	16	Gething

Comments:

1. A one time experimental rainbow trout stocking by the Peace Canyon Fish Hatchery occurred in 1983.
2. PFWWCP completed an aerial and ground habitat reconnaissance level inventory survey of Gaylard Creek in 1994. (PFWWCP report # 140)
3. PFWWCP translocated 7 male and 9 female spawning condition bull trout from base of Gething Creek waterfall to Gaylard Creek in 1994 (PFWWCP report *in prep.*).
4. PFWWCP staff electrofished selected sections of Gaylard Creek (1999, 2005) to evaluate the 1994 translocation of bull trout (PFWWCP report *in prep.*).

Gething Creek

Location: 22 km W of Hudson's Hope, tributary to Dinosaur Reservoir.
Species Present: BT, KO, LNC, LSU, RB, whitefish (general).
Management Unit: 07-31 **UTM:** 10.547763.6206940
Lake Surface Area: **Stream length:** 27.1 km
Watershed Code: 230-815600 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1983	RB	3150	Modeste
1993	BT	13	Gething

Date	Species	Number	Stock
1997	BT	14	Gething
1999	BT	21	Gething

Comments:

1. A one time experimental rainbow trout stocking by the Peace Canyon Fish Hatchery occurred in 1983.
2. PFWWCP translocated spawning condition adult bull trout from base of impassable falls upstream into suitable spawning habitat in 1993, 1997, and 1999 (PFWWCP report *in prep.*).
3. PFWWCP staff electrofished selected sections and index sites on Gething Creek (1994, 1999, 2000, 2001, 2002, 2005) to evaluate the 1994, 1997, and 1999 translocation of bull trout (PFWWCP report *in prep.*).
4. PFWWCP staff conducted a stocking assessment (1988) of the head water lake (Wright L.) (PFWWCP report #198). Staff documented bull trout presence in the lake, assumed to be progeny of the translocated bull trout.
5. PFWWCP staff conducted a stocking assessment (2004) of Wright L. (PFWWCP report *in prep.*). Bull trout captured in the lake, assumed to be progeny of the translocated bull trout.

Goose Lake

Location: 70 km S SE of Mackenzie, Parsnip Reach.
Species Present: BB, CAS, LKC, MW, RB, RSC, Sculpin (general), Sucker (general), WSU.
Management Unit: 07-16 **UTM:** 10.527705.6068252
Lake Surface Area: 74.3 ha. **Stream length:**
Watershed Code: 236-349500 **Waterbody Identifier:** 00494PARS

Stocking History:

Date	Species	Number	Stock
1982	RB	5000	NRT Premier
1986	RB	5000	NRT Premier
1987	RB	5000	Tunkwa
1989	RB	5000	Tunkwa

Date	Species	Number	Stock
1990	RB	5000	Badger
1992	RB	5000	NRT Premier
1994	RB	5000	Tunkwa
2002	RB	5000	Blackwater DR

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1983.
2. No PFWWCP involvement.

Hambone Lake

Location: 72 km S SE of Mackenzie, Parsnip Reach.
Species Present: CSU, LSU, MW, NSC, PCC, RB, RSC.
Management Unit: 07-16 **UTM:** 10.524266.6063967
Lake Surface Area: 74.2 ha. **Stream length:**
Watershed Code: 230-906800-97600-32400 **Waterbody Identifier:** 00149CRKD

Stocking History:

Date	Species	Number	Stock
1982	RB	5000	NRT Premier
1986	RB	5000	NRT Premier
1987	RB	5000	Tunkwa
1989	RB	5000	Tunkwa
1990	RB	5000	Badger
1992	RB	5000	NRT Premier
1994	RB	5000	Tunkwa
1998	RB	5000	Badger Tunkwa
2002	RB	2000	Blackwater DR

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1983.
2. No PFWWCP involvement.

Hart Lake

Location: 100 km. S SE of Mackenzie (3 km S SE of Bear Lake), Parsnip Reach.
Species Present: BMC, CAS, EB, LSU, MW, RB, RSC, WSU.
Management Unit: 07-16 **UTM:** 10.522740.6036156
Lake Surface Area: 55.8 ha. **Stream length:**
Watershed Code:230-906800-97600-54000-5350 **Waterbody Identifier:** 00982CRKD

Stocking History:

Date	Species	Number	Stock
1983	RB	15000	Beaver
1984	RB	5000	NRT Premier
1985	RB	5000	NRT Premier
1986	RB	5000	NRT Premier
1987	RB	5000	Tunkwa
1988	RB	5000	Tunkwa
1988	RB	5000	Dragon
1989	RB	10000	Tunkwa
1990	RB	30000	Dragon
1991	RB	30000	Dragon
1992	RB	30000	Dragon
1993	RB	30000	Dragon
1994	RB	30000	Premier DR
1995	RB	30000	Premier DR
1996	RB	10000	NRT Dragon
1997	RB	10000	Tzenzaicut DR
1998	RB	10000	NRT Dragon
1999	RB	10000	NRT Dragon
2000	RB	10000	Badger Tunkwa
2001	RB	10000	Badger Tunkwa
2002	RB	10000	Dragon
2003	RB	10000	Dragon
2004	RB	10000	Dragon
2005	RB	2500	Blackwater AF3N
2005	RB	7500	Blackwater DR

Comments:

1. Original survey completed by the Province of BC fisheries staff in 1952.
2. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1961.
3. No PFWWCP involvement.
4. Hart Lake was subject to a “Rehabilitation” process with Rotenone in 1982 by the Province of BC fisheries staff.

Heart Lake (Hart)

Location: 37 km NE of Mackenzie, Pine River drainage area.
Species Present: EB, RB.
Management Unit: 07-22 **UTM:** 10.527471.6150393
Lake Surface Area: 12.5 ha. **Stream length:**
Watershed Code: 234-821100 **Waterbody Identifier:** 00544PINE

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1970	RB	3000	Pennask	1992	EB	2000	Aylmer
1973	RB	5000	Mixed-Native	1993	EB	2000	Aylmer
1975	RB	5000	Swalwell	1993	RB	2000	Tunkwa
1976	RB	5000	Beaver	1994	EB	2000	Aylmer
1978	RB	5000	Beaver	1994	RB	2000	Premier DR
1979	RB	10000	Badger & Beaver	1995	RB	2000	NRT Genier
1980	RB	10000	Badger & Beaver	1995	EB	1500	Aylmer 3N
1981	EB	5000	Aylmer	1995	EB	1500	Aylmer
1981	RB	5000	NRT Premier	1996	RB	2000	Beaver
1982	EB	5000	Aylmer	1996	EB	1000	Aylmer
1983	EB	2000	Aylmer	1996	EB	1000	Aylmer 3N
1983	RB	2000	NRT Premier	1997	RB	1340	Blackwater DR 3N
1984	EB	2000	Aylmer	1997	EB	2000	Aylmer
1984	RB	2000	NRT Premier	1998	EB	1000	Aylmer
1985	EB	2000	Aylmer	1998	RB	1500	Blackwater GE
1986	EB	2000	Aylmer	1999	EB	1000	Aylmer AF3N
1988	EB	2000	Aylmer	1999	RB	1500	Blackwater DR AF3N
1988	RB	2000	NRT Premier	2000	EB	1000	Aylmer AF3N
1989	EB	2000	Aylmer	2000	RB	1500	Blackwater DR AF3N
1989	RB	2000	Tunkwa	2001	EB	1000	Aylmer AF3N
1990	EB	2000	Aylmer	2001	RB	1500	Blackwater DR AF3N/3N
1990	RB	2000	Badger	2002	EB	1000	Aylmer AF3N
1991	EB	2000	Aylmer	2003	EB	1000	Aylmer AF3N
1991	RB	2000	NRT Premier	2004	EB	2000	Aylmer AF3N
1992	RB	2000	NRT Premier	2005	RB	750	Fraser Valley 3N

Comments:

1. Original survey completed by the Province of BC fisheries staff in 1958.
2. Heart Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
3. The Province of BC fisheries staff (Fort St. John) conducted studies to determine differential survival rates of triploid versus standard Aylmer fish stock. Additional sampling surveys conducted in 2002.
4. PFWWCP staff conducted winter oxygen survey April 2003, data provided to the Province of BC fisheries staff (Fort St. John).

Heather Lake

Location: 22 km N NW of Mackenzie, Parsnip Reach.
Species Present: BT, LW, CSU, LSU, MW, NSC, PCC, RB, RSC, CCG, WSU.
Management Unit: 07-30 **UTM:** 10.483454.6149949
Lake Surface Area: 119 ha. **Stream length:**
Watershed Code: 230-903900 **Waterbody Identifier:** 00394PARA

Stocking History:

Date	Species	Number	Stock
1979	RB	20000	NRT Premier
1981	RB	10000	NRT Premier
1983	RB	10000	NRT Premier
1984	RB	5000	NRT Premier
1992	RB	5000	NRT Premier
1993	RB	5000	Blackwater
1994	RB	10000	Blackwater
1995	RB	10000	Blackwater DR
1996	RB	10000	Blackwater DR
1997	RB	10000	Blackwater
1998	RB	10000	Blackwater DR
1999	RB	2942	Blackwater GE
1999	RB	7058	Blackwater DR

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1970.
2. Reconnaissance survey of Heather Lake completed by PFWWCP in 1989 (PFWWCP report # 90).
3. PFWWCP initiated experimental stocking of "Blackwater strain" rainbow trout in 1992 to determine if predation by northern pikeminnows could be reduced.
4. PFWWCP funded transport and release costs of stocked fish from 1992 – 1999.
5. Mackenzie Fish and Game Association held annual "non-game fish" derbies in Heather Lake from approximately 1993 to 1997 in an attempt to reduce northern pikeminnow numbers.
6. Fish stocking assessment of Heather Lake completed 1998 (PFWWCP report # 195).
7. Hybridisation between coarse suckers and white suckers noted and confirmed by Dr. D. McPhail (University of BC).
8. Experimental stocking program (initiated in 1992) cancelled after 1999 due to low survival rate of stocked fish as noted in PFWWCP report # 195.

Iver Lake (Snow Lake)

Location: 55 km SW of Chetwynd, Pine River drainage area.
Native Species: RB.
Management Unit: 07-22 **UTM:** 10.551802.6131448
Lake Surface Area: 39.2 ha. **Stream length:**
Watershed Code: 234-443900-31300-16400 **Waterbody Identifier:** 00805PINE

Stocking History:

Date	Species	Number	Stock
1991	RB	8000	NRT Premier
1991	RB	4446	Beaver
1992	RB	12000	Sheridan
1993	RB	12000	Dragon/ Tunkwa
1994	RB	5998	Tunkwa
1996	RB	3000	Beaver
1998	RB	3000	Badger Tunkwa

Iver (Snow) Lake

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1990.
2. No PFWWCP involvement.

Johnson Creek

Location: 17 km SW of Hudson's Hope, tributary to Dinosaur Reservoir.
Species Present: BT, CAS, CBA, CCG, CRI, LSU, MW, NSC, RB, RSC.
Management Unit: 07-31 **UTM:** 10.553209.6200751
Lake Surface Area: **Stream length:** 29.8 km.
Watershed Code: 230-809800 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1982	RB	1994	Dinosaur
1984	RB	6750	Dinosaur

Comments:

1. Experimental rainbow trout stocking by the Peace Canyon Fish Hatchery occurred in 1982 and 1984.
2. Waterfalls beginning approximately 500 m upstream from Dinosaur Reservoir are barriers to upstream fish passage.
3. One specimen each of mottled sculpin, spoonhead sculpin and northern pike were recorded captured in a fish fence operation on Johnson Creek prior to completion of the Peace Canyon Dam. None of these species have been observed since completion of the Peace Canyon Dam.
4. Rainbow trout stocked into Pete Lake, and resulting offspring, may be recruiting to Johnson Creek via Burnt Trail Creek.
5. Reconnaissance electrofishing surveys conducted by PFWWCP staff in 2005 from stream mouth upstream approximately 500 m (data in PFWWCP files).

Little Calais Lake

Location: 134 km NW of Fort St. James, Parsnip Reach.
Species Present: CSU, LSU, RB.
Management Unit: 07-28 **UTM:** 10.348905.6143496
Lake Surface Area: 15.7 ha. **Stream length:**
Watershed Code: 237-701100-35500 **Waterbody Identifier:** 00452NATR

Stocking History:

Date	Species	Number	Stock
1992	GR	62	Nation River
1993	GR	25	Nation River

Comments:

1. Original reconnaissance inventory of Little Calais Lake completed 1992 by PFWWCP (PFWWCP report # 112).
2. PFWWCP translocated adult Arctic grayling from the Nation River to Little Calais Lake in 1992 and 1993 (data on file in PFWWCP office).
3. The Province of BC (through the Forest Renewal BC initiative) funded consultants that performed a limited netting survey of Little Calais Lake in 1996 (data on file in PFWWCP office). No Arctic grayling captured, but rainbow trout were captured. Rainbow trout were not present during the 1992 PFWWCP Reconnaissance Survey.
4. PFWWCP evaluated the grayling translocation with a thorough netting survey in 1998 (PFWWCP report # 199). Arctic grayling are no longer present in Little Calais Lake.
5. Rainbow trout population is resultant of a one time (1991) stocking of 50,000 RB to Albert Lake. Albert Lake is located approximately 2 km downstream from Little Calais Lake.

Little Carbon Lake

Location: 42 km W SW of Hudson's Hope, Peace Reach.
Species Present: RB.
Management Unit: 07-21 **UTM:** 10.525031.6203844
Lake Surface Area: 3.7 ha. **Stream length:**
Watershed Code: 230-846900-07300 **Waterbody Identifier:** 00219PCEA

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1993	RB	500	Dragon/Tunkwa	1995	RB	500	Tunkwa
1994	RB	500	Tunkwa	1996	RB	500	Beaver

Comments:

1. Original reconnaissance inventory of Little Carbon Lake completed in 1993 by PFWWCP (PFWWCP report # 108).
2. PFWWCP funded the transport and release (helicopter) costs of stocked fish from 1993 – 1996.
3. A fish stocking assessment of Little Carbon Lake was completed in 1998 by PFWWCP (PFWWCP report # 200).
4. Little Carbon Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
5. PFWWCP ceased stocking program due to limited use observed during the aerial survey of boats and anglers, and the elimination of Forest Service Recreation site and trail maintenance.

Lost Lake

Location: 1 km E SE of Mackenzie, Parsnip Reach.
Species Present: EB, LKC.
Management Unit: 07-30 **UTM:** 10.496581.6131464
Lake Surface Area: 9.6 ha. **Stream length:**
Watershed Code: 230-905100-04500 **Waterbody Identifier:** 00876PARA
Stocking History:

Date	Species	Number	Stock
1995	EB	2500	Aylmer
1997	EB	2500	Aylmer
1999	EB	2500	Aylmer AF3N
2001	EB	2501	Aylmer AF3N
2003	EB	3000	Aylmer AF3N
2005	EB	3000	Aylmer AF3N

Comments:

1. Original reconnaissance inventory of Lost Lake completed by PFWWCP in 1993 (PFWWCP report # 114).
2. Initial stockings (1995, 1997, and 1999) completed by members of Mackenzie Fish and Game Association, Mackenzie Boy Scouts, Mackenzie High School students and PFWWCP staff carrying in fish by buckets. Subsequent stockings completed by helicopter.
3. PFWWCP funded the transport and release costs of stocked fish from 1995 – 1999.
4. The PFWWCP funds all costs associated with stocking Lost Lake, 2001 to present.
5. Fish stocking assessment of Lost Lake completed 2002 (PFWWCP report #269).
6. Lost Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
7. Population of lake chub (possibly a stunted population) discovered in 2002 survey confirmed by laboratory analysis by D. McPhail (University of BC). Fish were too small to capture in minnow traps and may have been present but not captured in the 1993 PFWWCP reconnaissance survey.

Manson River

Location: 62 km. NW of Mackenzie, Parsnip Reach.
Species present: BT, CCG, GR, KO, LSU, MW, NSC, RB, Sculpin (general).
Management Unit: 07-28 and 07-29 **UTM:** 10.448343.6176911
Lake Surface Area: **Stream length:** 105.5 km.
Watershed Code: 230-916700 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1990	KO	225000	Hill Cr
1991	KO	101898	Hill Cr
1992	KO	72375	Hill Cr
1993	KO	192400	Hill Cr
1994	KO	206198	Hill Cr
1995	KO	200000	Hill Cr
1996	KO	204000	Meadow Cr
1997	KO	194434	Meadow Cr

Comments:

1. Habitat surveys, and underwater fish counts completed 1989 – 1991 (results presented in PFWWCP report # 70).
2. The PFWWCP funded transportation and release costs associated with stocking kokanee to Manson River. The cost to produce kokanee in hatcheries was assumed by the Province of BC with some hatchery upgrades to the Loon Creek site to facilitate kokanee production funded by the PFWWCP.
3. Manson River angling closure instituted in mid-1990s, altered to catch and release fishery by 1999.
4. PFWWCP completed aerial surveys to locate and enumerate spawning kokanee in Manson River in 1990, 1993 – 1995 (data on file).
5. Kokanee stocking program completed 1997. Kokanee stocking program was evaluated by; Williston Reservoir stocked kokanee spawning assessment 1994 (PFWWCP report #176), Williston Reservoir hydro acoustic survey completed in 2000 (PFWWCP report #274) and spawning kokanee enumeration counts (helicopter based) scheduled for 2002 - 2006.

Morfee Lakes

Location: 1 km E of Mackenzie, Parsnip Reach.
Species Present: CSU, LT, LW, LSU, MW, NSC, PCC, RB, WSU, sculpin (general).
Management Unit: 07-30 **UTM:** 10.493713.6134922
Lake Surface Area: 279.2 ha. **Stream length:**
Watershed Code: 230-905100-04500 **Waterbody Identifier:** 00821PARA

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1976	RB	15000	Pennask	1991	RB	10000	Badger
1978	LT	30425	Moat	1992	RB	10592	Tunkwa
1978	RB	30000	Spahomin	1993	RB	10000	Tunkwa
1979	RB	15000	Spahomin	1994	RB	10000	Tunkwa
1980	RB	10000	Badger	1995	RB	10000	Blackwater GE
1981	RB	10000	NRT Premier	1996	RB	10000	Badger Tunkwa
1982	RB	10000	NRT Premier	1997	RB	10000	Blackwater
1983	RB	20000	NRT Premier	1998	RB	10000	Blackwater DR
1984	RB	15000	NRT Premier	1999	RB	10000	Blackwater DR
1985	RB	10000	Beaver	2000	RB	10000	Blackwater DR
1986	RB	13800	Dragon	2001	RB	10000	Blackwater DR
1987	RB	15000	Tunkwa	2002	RB	10000	Blackwater DR
1988	RB	15000	Tunkwa	2003	RB	10000	Blackwater DR
1989	RB	15000	Tunkwa	2004	RB	10000	Blackwater DR
1990	RB	15000	Badger	2005	RB	10000	Blackwater DR

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1970.
2. Fish habitat enhancement potential and stocking assessment of Morfee Lake completed in 1991 by PFWWCP (PFWWCP report # 122).
3. Lake trout stocked originated from a 1974 translocation from Riding Mountain National Park in Manitoba. The "Moat" brood source designation refers to the moat around the Kootenay trout hatchery in which the adult brood lake trout were held until released to Morfee Lake in 1978. The juveniles resultant from the adult brood were stocked into both Morfee and Tacheeda Lakes as fry in 1998.

Mugaha Creek

Location: 5 km NW of Mackenzie, Parsnip Reach.
Species Present: BT, CSU, GR, KO, MW, NSC, RB, sculpin (general), sucker (general).
Management Unit: 07-30 **UTM:** 10.488298.6137406
Lake Surface Area: **Stream length:** 31.9 km.
Watershed Code: 230-905100 **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1997	KO	128	Meadow Cr
1998	KO	160	Meadow Cr
1999	KO	150	Meadow Cr
2000	KO	170	Meadow Cr
2003	KO	100	Meadow Cr-Su
2004	KO	150	Meadow Cr
2005	KO	150	Meadow Cr

Comments:

1. Habitat surveys completed 1989 (results presented in PFWWCP report # 70).
2. Kokanee stocking is resultant of the PFWWCP organised "*Classroom kokanee project*". Mackenzie school students raise kokanee from egg to fry stage, and then release them to Mugaha Creek.

N4000 Creek (Tributary to Blackwater Creek)

Location: 48 km. NW of Mackenzie, Parsnip Reach.
Species Present: RB.
Management Unit: 07-30 **UTM:** 10.466285.6155485
Lake Surface Area: **Stream length:**
Watershed Code: unknown **Waterbody Identifier:**

Stocking History:

Date	Species	Number	Stock
1984	RB	1500	Williston

Comments:

1. N4000 is an alias name, N4000 refers to the logging road which accessed the creek, most likely a tributary of Blackwater Creek. The Watershed code is unknown and the UTM location is an approximation from field notes.
2. No PFWWCP involvement.
3. Site was a possibly a brood collection source for the Peace Canyon Fish Hatchery in 1983. The stocking in 1984 may have been undertaken to replenish yearling fish as identified by Mark Siemens (currently manager of the Freshwater Fisheries Society of BC's Summerland Trout Hatchery) letter on file.

Nation River

Location: 35 km. NW of Mackenzie, Parsnip Reach.
Species Present: BB, BT, CCG, CSU, GR, KO, LKC, LT, LNC, LSU, MW, NSC, RB, RSC.
Management Unit: 07-28, 07-29 **UTM:** 10.467163.6150197
Lake Surface Area: **Stream length:** 152.9 km.
Watershed Code: 237 **Waterbody Identifier:**

Stocking History:

<u>Date</u>	<u>Species</u>	<u>Number</u>	<u>Stock</u>
1990	KO	100000	Hill Cr
1991	KO	25000	Hill Cr
1992	KO	163085	Hill Cr
1993	KO	72000	Hill Cr
1994	KO	79000	Hill Cr
1995	KO	75000	Hill Cr
1996	KO	100000	Meadow Cr
1997	KO	50000	Meadow Cr

Comments:

1. Habitat surveys completed 1989 – 1990 (results presented in PFWWCP report # 70).
2. Nation River adult Arctic grayling were translocated to Little Calais Lake in 1992 and 1993 (PFWWCP report #199).
3. Kokanee stocking program undertaken 1990 – 1997.
4. The PFWWCP funded transportation costs associated with stocking kokanee to Nation River. The cost to produce kokanee in hatcheries was assumed by the Province of BC with some Loon Creek hatchery upgrades to facilitate kokanee production funded by the PFWWCP.
5. PFWWCP completed aerial surveys to locate and enumerate spawning kokanee in Nation River in 1990, 1993 – 1995 (data on file).
6. Kokanee stocking program completed 1997. Kokanee stocking program was evaluated by; Williston Reservoir stocked kokanee spawning assessment 1994 (PFWWCP report #176), Williston Reservoir hydro acoustic survey completed in 2000 (PFWWCP report #274) and spawning kokanee enumeration counts (helicopter based) scheduled for 2002 - 2006.

Portage Creek

Location: 6 km SW of Hudson's Hope, tributary to Peace River (immediately downstream of Dinosaur Reservoir).
Species Present: LSU, RB.
Management Unit: 07-35
Lake Surface Area:
Watershed Code: 230-801600
UTM: 10.563183.6205196
Stream length: 25.8 km.
Waterbody Identifier:

Stocking History:

*No government approved stocking occurred. No documentation of past fish introductions are available.

Comments:

1. In 1989 a diversion of Portage Creek and Bullrun Creek into Dinosaur Reservoir was contemplated to increase power production and provide additional spawning habitat to Dinosaur Reservoir fish (see PFWWCP report #72).
2. Electrofishing completed by fisheries consultants RL&L Environmental Services Ltd. indicated presence of rainbow trout.
3. Electrofishing by PFWWCP staff confirmed presence of long nose suckers and rainbow trout.
4. PFWWCP staff collected rainbow trout tissue samples DNA analysis. Dr. Eric Taylor (University of British Columbia) indicated the rainbow trout were not sufficiently divergent to indicate that they survived in a distinct refugium (i.e. glacial relics).
5. In 1997 PFWWCP biologist (A. Langston) interviewed local land owners and was informed of numerous illegal introductions by residents over the years which included translocating sport caught rainbow trout from the Peace River into Portage Creek in the Beryl Prairie area. One land owner described allowing a friend to place a large "sucker" (presumed long nose) into an excavated pond (widening of Portage Creek) on his property in the Beryl Prairie area.
6. The Peace Canyon Fish Hatchery (in operation 1981 – 1989) was situated very close to Portage Creek. Anecdotal information suggested that a "few" fish from the hatchery may have found their way into Portage Creek, but the validity of the information can not be confirmed.
7. A survey was completed for PFWWCP by Canyon Contracting in 1998, which mapped elevations and identified a potential diversion route of both Portage and Bullrun Creeks to Dinosaur Reservoir.

Pothole Lake (43 Mile Lake, Pothole Lakes (#1))

Location: 34 km N NW of Mackenzie, Parsnip Reach.
Species Present: LKC, RB.
Management Unit: 07-30 **UTM:** 10.475887.6161248
Lake Surface Area: 19.7 ha. **Stream length:**
Watershed Code: 230-903000 **Waterbody Identifier:** 00243PARA

Stocking History:

Date	Species	Number	Stock
1980	RB	10000	Badger
1981	RB	5000	NRT Premier
1982	RB	5000	NRT Premier
1983	RB	5000	NRT Premier
1985	RB	2500	NRT Premier
1987	RB	2500	Tunkwa
1989	RB	2500	Tunkwa
1990	RB	2500	Badger

Date	Species	Number	Stock
1991	RB	2500	NRT Premier
1993	RB	2500	Tunkwa
1995	RB	1500	Pennask AF
1997	RB	1500	Pennask Hath AF
1999	RB	1500	Pennask Beav AF
2001	RB	1500	Pennask BV AF
2003	RB	2000	Pennask AF
2005	RB	2000	Pennask AF

Comments:

1. Original reconnaissance inventory of Pothole Lake #1 completed by PFWWCP in 1989 (PFWWCP report # 92).
2. PFWWCP funded transport and release costs of stocked fish from 1990 – 1999.
3. Site investigated in 1991 - 1994 for a possible gravity fed or solar power pump fed “upwelling station” to alleviate “egg bound” condition. “Upwelling station” location deemed not feasible.
4. PFWWCP assumed all costs associated with stocking this lake 2000 to present.
5. Fish stocking assessment of Pothole Lake #1 completed 2001 (PFWWCP Report #284).
6. 43 Mile Pothole Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).

Rainbow Lake

Location: 56 km S SW of Mackenzie, Parsnip Reach.
Species Present: LKC, LSU, NSC, RB, RSC,WSU.
Management Unit: 07-24 **UTM:** 10.478414.6076635
Lake Surface Area: 8.3 ha. **Stream length:**
Watershed Code: 230-906800-55600-46200 **Waterbody Identifier:** 00661CARP

Stocking History:

Date	Species	Number	Stock
1981	RB	5000	Beaver
1982	RB	5000	NRT Premier

Date	Species	Number	Stock
1983	RB	5000	Dragon

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1985.
2. No PFWWCP involvement.

Sabai Lake

Location: 27 km S of Mackenzie, Parsnip Reach.
Species Present: BB, CAS, CSU, LSU, RB, RSC.
Management Unit: 07-24 **UTM:** 10.494324.6104007
Lake Surface Area: 31.9 ha. **Stream length:**
Watershed Code: 230-906800-26300 **Waterbody Identifier:** 00027CARP

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1991	RB	5000	NRT Premier	1996	RB	5000	Badger Tunkwa
1992	RB	5000	NRT Premier	1997	RB	5000	Badger Tunkwa
1993	RB	5000	Dragon Tunkwa	1998	RB	5000	Badger Tunkwa
1994	RB	5000	Tunkwa	1999	RB	5000	Pennask
1995	RB	5000	Blackwater GE				

Comments:

1. Original survey completed by the Province of BC fisheries staff in 1987.
2. Fish habitat enhancement potential and stocking assessment of Sabai Lake completed in 1990 by PFWWCP (PFWWCP report # 115).
3. PFWWCP funded transport and release costs of stocked fish from 1991 – 1999.
4. Fish stocking assessment of Sabai Lake completed 1999 (PFWWCP report # 230).
5. Stocking program ceased after the 1999 study indicated low survival rates likely due to low oxygen levels.

Simpson Lake (Grizzly)

Location: 34 km NE of Mackenzie, Pine River drainage.
Species Present: RB.
Management Unit: 07-31 **UTM:** 10.520776.6154521
Lake Surface Area: 31.2 ha. **Stream length:**
Watershed Code: 234-841900 **Waterbody Identifier:** 00511PINE

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1994	RB	26	Williston Reservoir	1997	RB	73	Williston Reservoir
1996	RB	62	Williston Reservoir	1998	RB	133	Williston Reservoir

Comments:

1. Original reconnaissance inventory of Simpson Lake completed 1991 (PFWWCP report # 110).
2. Lake named after WW II fatality RCAF Pilot Officer David A. Simpson.
3. PFWWCP translocated rainbow trout from the WAC Bennett Dam intake towers to Simpson Lake in 1994, and 1996 – 1998.
4. PFWWCP assessed Simpson Lake rainbow trout transplant in 1999 (PFWWCP report # 216).
5. PFWWCP assessed Simpson Lake rainbow trout transplant in 2001 (data on file).
6. Rainbow trout sport fishery established, lake “opened” to anglers in 2002.
7. Simpson Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).

Squaw Lake

Location: 100 km. S SW of Mackenzie (2 km. W of Bear Lake), Parsnip Reach.
Species Present: RB
Management Unit: 07-24 **UTM:** 10.519307.6037193
Lake Surface Area: 13.5 ha. **Stream length:**
Watershed Code: 230-906800-97600-58200 **Waterbody Identifier:** 00936CRKD

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1962	RB	2500	Oregon	1986	RB	2500	Tunkwa
1963	RB	6000	Washington	1987	RB	2500	Dragon
1964	RB	6000	McLeary	1988	RB	2500	Dragon
1965	RB	5000	Swalwell	1990	RB	10000	Dragon
1966	RB	5000	Swalwell	1992	RB	2500	Dragon
1967	RB	5000	Swalwell	1993	RB	1500	Pennask AF
1968	RB	4000	Swalwell	1994	RB	1500	Pennask AF
1970	RB	5000	Tunkwa	1995	RB	1500	Pennask AF
1973	RB	5000	Mixed - native	1996	RB	1500	Pennask Hath AF
1975	RB	10000	Swalwell	1997	RB	1500	Pennask Hath AF
1976	RB	6640	Pennask	1998	RB	1500	Pennask AF
1978	RB	5000	NRT Premier	1999	RB	1500	Pennask Beav AF
1979	RB	5000	NRT Premier	2000	RB	1500	Pennask AF
1980	RB	5000	Badger	2001	RB	1500	Pennask Beav AF
1981	RB	5000	Beaver	2002	RB	1500	Pennask Beav AF
1982	RB	5000	NRT Premier	2003	RB	1500	Pennask AF
1983	RB	5000	Dragon	2004	RB	1500	Pennask AF
1984	RB	5000	NRT Premier	2005	RB	1500	Pennask AF
1985	RB	2500	NRT Premier	2005	RB	2500	Blackwater AF3N

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1958.
2. No PFWWCP involvement.

Tacheeda Lakes

Location: 80 km. SE of Mackenzie (25 km. NE of Bear Lake), Parsnip Reach.
Species Present: BB, BT, CAS, KO, LT, LW, LSU, MW, NSC, PCC, PW, RB, RSC, Sucker(general), WSU.
Management Unit: 07-16 **UTM:** 10.532165.6064758
Lake Surface Area: 590 ha. **Stream length:**
Watershed Code: 236-352800 **Waterbody Identifier:** 00544PARS

Stocking History:

Date	Species	Number	Stock	Date	Species	Number	Stock
1978	LT	37950	Moat	1997	RB	20000	Badger Tunkwa
1988	RB	20000	Tunkwa	1999	RB	20080	Pennask
1991	RB	20145	NRT Premier	2001	RB	20000	Premier
1992	RB	10000	NRT Premier	2002	RB	20000	Tunkwa
1993	RB	20000	Dragon/Tunkwa/Beaver	2003	RB	20000	Badger Tunkwa
1994	RB	20000	Tunkwa	2003	RB	20000	Badger Tunkwa
1995	RB	15000	Blackwater GE	2004	RB	20000	Tunkwa

Comments:

1. Reconnaissance inventory completed by the Province of BC fisheries staff in 1976.
2. Stocked lake trout source was a 1974 translocation from Riding Mountain National Park in Manitoba. The “Moat” brood source designation refers to the moat around the Kootenay trout hatchery in which the adult brood lake trout were held until released to Morfee Lake in 1978. Eggs from the adults were raised and released as fry into both Morfee and Tacheeda Lakes.
3. No PFWWCP involvement.
4. Surface area is a combined total of the two lakes.

Tchentlo Lake (Nation Lakes)

Location: 89 km NW of Fort St. James, Parsnip Reach.
Species Present: BT, LT, LW, RB.
Management Unit: 07-28 **UTM:** 10.386422.6117917
Lake Surface Area: 6,639 ha. **Stream length:**
Watershed Code: 237 **Waterbody Identifier:** 00920NATR

Stocking History:

Date	Species	Number	Stock
1990	RB	4000	Gerrard
1991	RB	5580	Gerrard
1992	RB	13400	Gerrard

Comments:

1. PFWWCP funded helicopter costs to stock Gerrard rainbow trout into Tchentlo Lake.
2. Stocking of Gerrard rainbow trout was intended as an experiment to determine if Gerrard rainbow trout would attain a large size in the absence of kokanee as prey, and switch diet to lake whitefish. To date no reports of “unusually” large rainbow trout have been received. No formal evaluation of the Gerrard rainbow stocking project has occurred.

Tobin Lake

Location: 135 km N NW of Mackenzie (Lafferty Creek watershed), Finlay Reach.
Species Present: LKC, LSU, RB, RSC.
Management Unit: 07-37 **UTM:** 10.426348.6244691
Lake Surface Area: 112.9 ha. **Stream length:**
Watershed Code: 230-950000-26300 **Waterbody Identifier:** 00516FINA

Stocking History:

<u>Date</u>	<u>Species</u>	<u>Number</u>	<u>Stock</u>
1989	RB	5000	Dragon

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1981.
2. Reconnaissance inventory of Tobin Lake completed in 1989 by PFWWCP (PFWWCP report # 95).
3. PFWWCP funded helicopter costs to stock rainbow trout into Tobin Lake.
4. The one time stocking in 1989 was 5,000 (mean weight 1.09 g) Dragon Lake stock rainbow trout. PFWWCP report #95 erringly reported 17,000 fish had been stocked.
5. Letter on file from local "guide outfitter" in the area (Ken Kylo) indicated bull trout presence in the lake. None were captured in the 1989 reconnaissance survey.

Warhorse Lake

Location: 43 km S of Mackenzie, Parsnip Reach.
Species Present: BB, CSU, LKC, LSU, RB, Sucker (general).
Management Unit: 07-24 **UTM:** 10.492923.6088078
Lake Surface Area: 26.4 ha. **Stream length:**
Watershed Code: 230-906800-67600-23900 **Waterbody Identifier:** 00292CARP

Stocking History:

<u>Date</u>	<u>Species</u>	<u>Number</u>	<u>Stock</u>
1986	RB	2500	NRT Premier
1987	RB	2500	Tunkwa
1989	RB	2500	Tunkwa
1990	RB	2500	Badger
1992	RB	2500	NRT Premier
1994	RB	2500	Tunkwa
1996	RB	2500	Badger Tunkwa
1998	RB	2500	Badger Tunkwa
2000	RB	2500	NRT Premier
2002	RB	2000	Badger Tunkwa
2004	RB	2000	Tunkwa

Comments:

1. Original survey completed by the Province of BC fisheries staff in 1982.
2. No PFWWCP involvement.

Windy Point Lake

Location: 25 km S of Mackenzie, Parsnip Reach.
Species present: RB.
Management Unit: 07-24 **UTM:** 10.501281.6107512
Lake Surface Area: 9.5 ha. **Stream length:**
Watershed Code: 236-062300 **Waterbody Identifier:** 00165PARS

Stocking History:

Date	Species	Number	Stock
1964	RB	5000	McLeary
1970	RB	3500	Pennask
1972	RB	5000	Swalwell
1975	RB	10000	Swalwell
1979	RB	10000	NRT Premier
1983	RB	5000	Dragon
1987	RB	2500	Tunkwa
1989	RB	1000	Tunkwa
1991	RB	2500	NRT Premier
1993	RB	2500	Tunkwa
1995	RB	2500	NRT Premier
1997	RB	2500	Badger Tunkwa
1999	RB	2500	Pennask Beav AF
2001	RB	2500	Pennask AF3N
2003	RB	2500	Pennask AF3N
2005	RB	2500	Pennask AF3N

Comments:

1. Original reconnaissance inventory completed by the Province of BC fisheries staff in 1961.
2. PFWWCP funded the transport and release costs of stocked fish from 1991 – 1999.
3. A more detailed reconnaissance survey of Windy Point Lake was completed in 1989 by PFWWCP (PFWWCP report # 97).
4. Experimental “upwelling station” built by PFWWCP in 1993 to relieve chronic “egg-bound” problem.
5. “Upwelling station” removed in favour of more economical approach of stocking “sterile stock” rainbow trout.
6. Windy Point Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
7. Windy Point Lake dropped from PFWWCP stocking program in 2002. Stocking currently maintained by the Freshwater Fisheries Society of BC.

Wright Lake

Location: 41 km W SW of Hudson's Hope, headwaters of Gething Creek, tributary to Dinosaur Reservoir.
Species Present: BT, LSU, RB.
Management Unit: 07-31 **UTM:** 10.531552.6195042
Lake Surface Area: 23.2 ha. **Stream length:**
Watershed Code: 230-815600 **Waterbody Identifier:** 01109UPCE

Stocking History:

Date	Species	Number	Stock
1991	RB	8000	NRT Premier
1992	RB	8797	NRT Premier
1993	RB	7500	Dragon/Tunkwa
1994	RB	3000	Tunkwa
1996	RB	1500	Beaver
1998	RB	2000	Badger Tunkwa
1999	RB	2000	Pennask Beav
2000	RB	2000	Pennask AF3N
2001	RB	2000	Pennask AF3N
2002	RB	2000	Pennask AF3N
2003	RB	2000	Blackwater Dragon 3N
2004	RB	2000	Blackwater Dragon 3N
2005	RB	2000	Blackwater 3N

Comments:

1. Original reconnaissance inventory of Wright Lake completed by PFWWCP in 1990 (PFWWCP report # 102).
2. PFWWCP funded transport and release (helicopter) costs of stocked fish from 1991 – 1999.
3. The PFWWCP funds all costs associated with stocking Wright Lake, 2000 to present.
4. Fish stocking assessment of Wright Lake completed 1998 (PFWWCP report # 198).
5. Wright Lake was included in the 2002 PFWWCP small lake aerial survey of boats and anglers (PFWWCP report #278).
6. Fish stocking assessment of Wright Lake completed 2004 (PFWWCP report *in prep.*).

REFERENCES

All reports presented in the comments sections for each water body are available for viewing and download from the Peace/Williston Fish and Wildlife Compensation Program website:

www.bchydro.com/pwcp/

ACKNOWLEDGEMENTS

Grant Gale (Freshwater Fisheries of BC) provided detailed information of stocking history and explanations of stock designations. His assistance and patience in explaining details of stock origins is appreciated. Dawn Cowie prepared figures 2 – 5 of this report. Constructive review of the report was provided by: Ray Phillipow and Ted Zimmerman of the BC Ministry of Environment; and Dave Wilson BC Hydro.

APPENDIX 1

BC Fish Species Codes: Alphabetical by codes

(from Resources Information Standards Committee).

Code	Common Name	Latin Name
BB	Burbot, Freshwater Ling Cod, Ling, Loche, Lawyer	<i>Lota lota</i>
BMC	Brassy Minnow	<i>Hybognathus hankinsoni</i>
BT	Bull Trout	<i>Salvelinus confluentus</i>
CAS	Prickly Sculpin	<i>Cottus asper</i>
CBA	Mottled Sculpin	<i>Cottus bairdi</i>
CCG	Slimy Sculpin	<i>Cottus cognatus</i>
CRI	Spoonhead Sculpin, Spoonhead Muddler	<i>Cottus ricei</i>
CSU	Largescale Sucker, Coarsescale Sucker	<i>Catostomus macrocheilus</i>
DV	Dolly Varden, Dolly Varden Char	<i>Salvelinus malma</i>
EB	Brook Trout, Eastern Brook Trout	<i>Salvelinus fontinalis</i>
GR	Arctic Grayling	<i>Thymallus arcticus</i>
KO	Kokanee	<i>Oncorhynchus nerka</i>
LKC	Lake Chub	<i>Couesius plumbeus</i>
LNC	Longnose Dace	<i>Rhinichthys cataractae</i>
LSU	Longnose Sucker, Fine-scaled Sucker, Northern Sucker	<i>Catostomus catostomus</i>
LT	Lake Trout, Lake Char	<i>Salvelinus namaycush</i>
LW	Lake Whitefish, Common Whitefish, Humpback Whitefish	<i>Coregonus clupeaformis</i>
MW	Mountain Whitefish, Rocky Mountain Whitefish	<i>Prosopium williamsoni</i>
NP	Northern Pike, Jackfish, Jack	<i>Esox lucius</i>
NSC	Northern Pikeminnow (formerly Northern squawfish)	<i>Ptycheilus oregonensis</i>
PCC	Peamouth Chub, Peamouth	<i>Mylocheilus caurinus</i>
PW	Pygmy Whitefish, Coulter's Whitefish	<i>Prosopium coulteri</i>
RB	Rainbow Trout, Kamloops Trout	<i>Oncorhynchus mykiss</i> (formerly <i>Salmo gairdneri</i>)
RSC	Redside Shiner	<i>Richardsonius balteatus</i>
WP	Walleye, Pike-perch, Pickerel, Dore, many others	<i>Stizostedion vitreum</i>
WSU	White Sucker	<i>Catostomus commersoni</i>