
Fry Salvage 1998

Funded by Fisheries and Oceans Canada
Coordinated by the Community Futures
Development Corporation of Nadina

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Executive Summary

Fry Salvage Program 1998

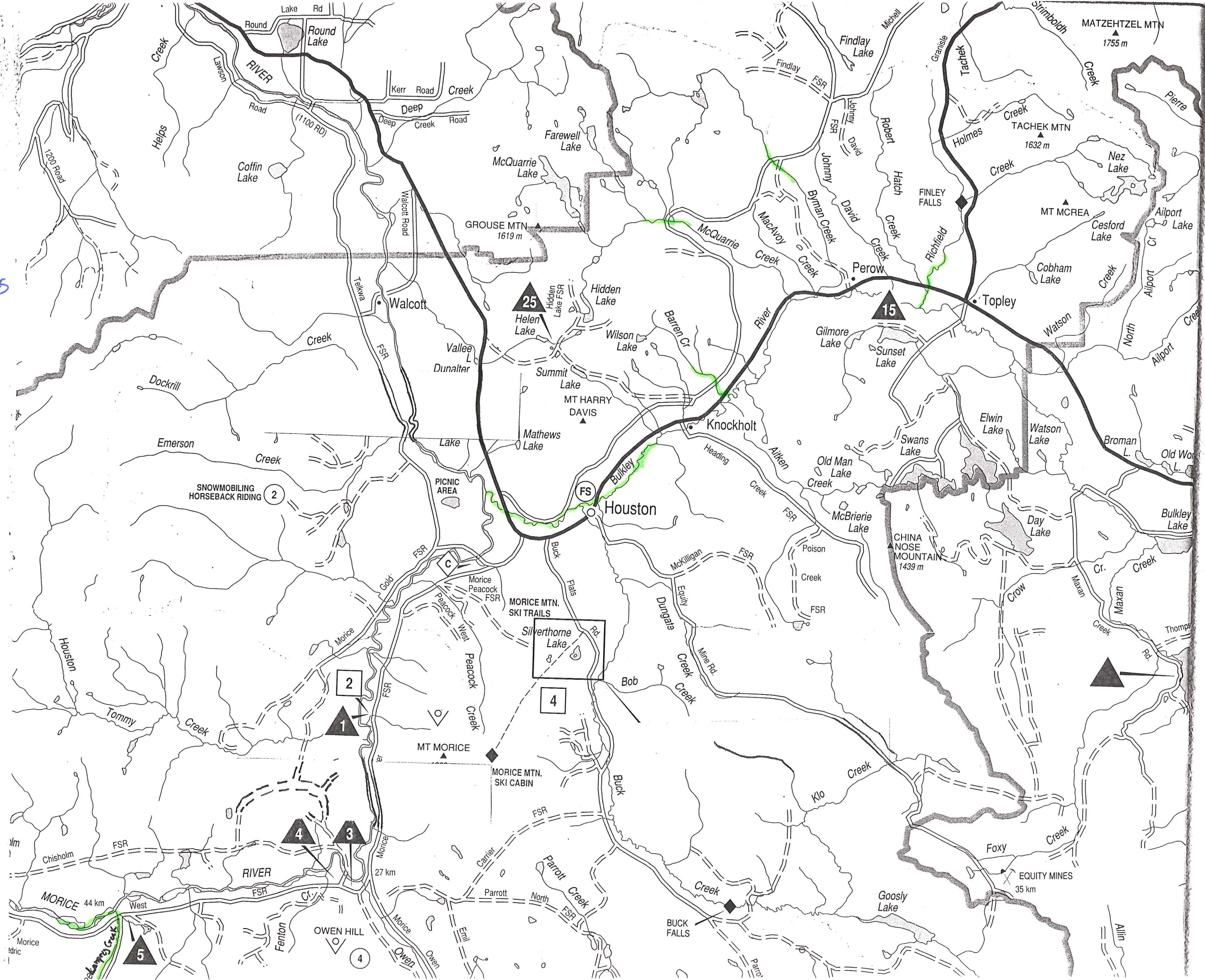
The need for a Fry Salvage program was identified by the Department of Fisheries and Oceans and Nadina Community Futures to address concerns about the survival rates of Coho Fry in the Upper Bulkley River Watershed. These concerns were highlighted by the impact of this year's low water event. Local waterways had high temperatures and barriers developed that restricted fry progression up stream (fry were getting caught in isolated ponds that allowed no escape). We received contract approval late in the Fry Salvage Season, therefore, only forty percent of the budget was used.

Areas of immediate concern, were the Richfield, McQuarrie, Byman and Barren Creeks, as well as, the Upper Bulkley and the Morice Rivers. The 1998 Fry Salvage served to address the following concerns:

- 1) To relocate trapped Coho Fry from stagnant pools and return them to the moving water of the main stem.
 - 2) To identify sites that in future low water events could be areas of concern and should be checked at the onset to ensure swift and efficient use of resources to increase Coho fry survival rates.
 - 3) To display this information in a useful manner so that future fry salvage operations will be poignant and effective.
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Overview of Fry
Salvage Activities
1998

— Surveyed Areas



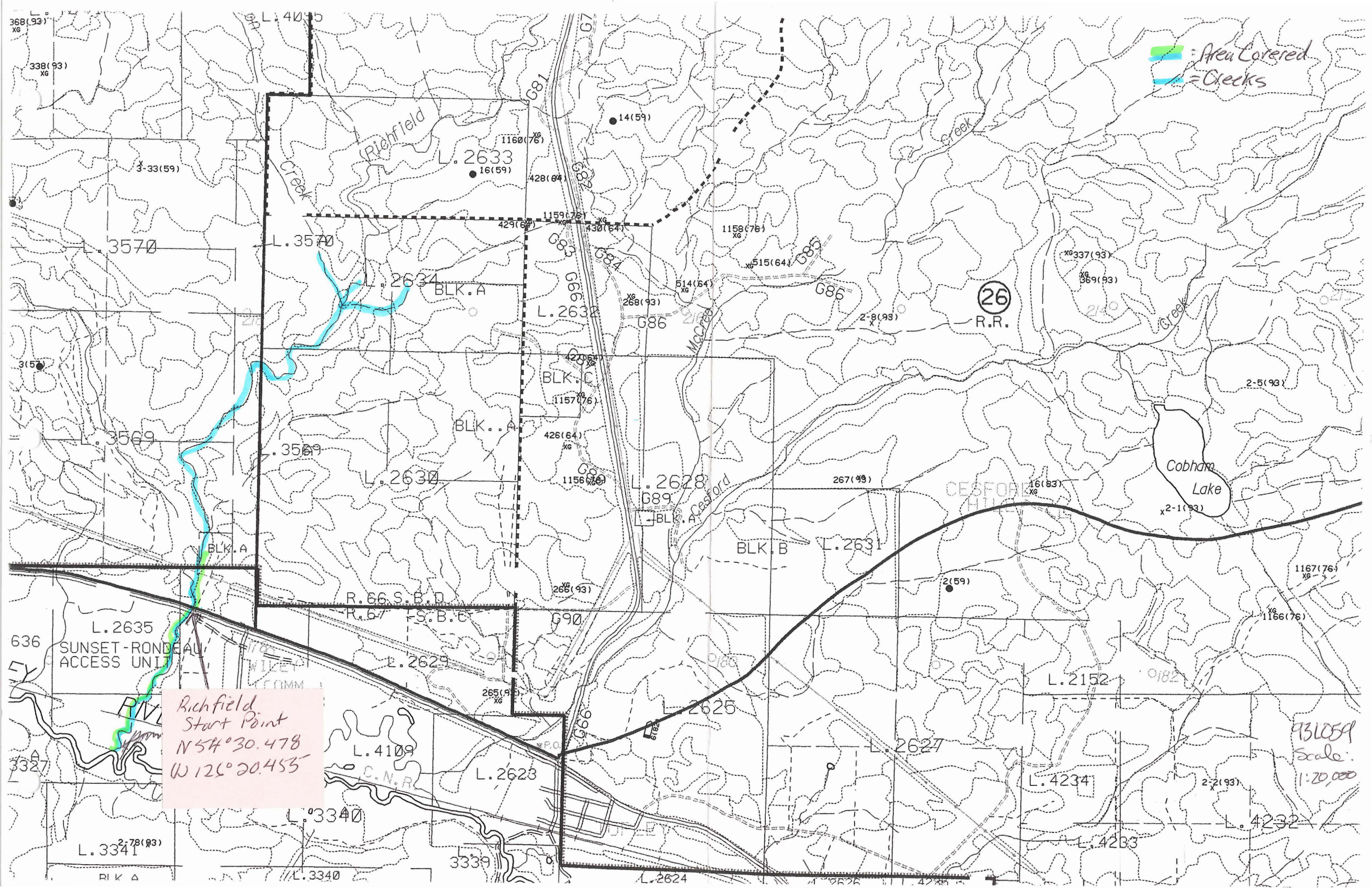
Richfield Creek

- October 1st, Good flow during the low water event. A Survey of the creek 300 meters downstream of Highway 16 and 500 meters up stream revealed no significant pooling or trapped fry.
- October 3rd and 4th, Heavy rains raised the flow of water considerably.

Fry Trapped: 4 Trout, 12 Chinook
Oxygen Test Results: September 8th: 10
September 17th: 10
October 5th: 10
October 7th: 10

Recommendations; Richfield Creek although not as severely affected by this year's low water event, should be monitored during times of low water. The following GPS coordinates would be a good starting point for future fry salvage operations.

GPS N54°30.478/ W126°20.445



 = Area Covered
 = Creeks

Richfield
Start Point
N 54° 30.478'
W 125° 20.453'

931059
Scale:
1:20,000

Byman Creek

Byman Creek was adversely affected by this season's low water event. Some of the pools found measured 3ft by 2ft, 9 to 10 inches deep and contained as much a dozen Coho.

- October 2nd, we discovered fry laden pools from Perow Station Train Bridge to Highway 16 a distance of 2.2 KM. The lower portion of Byman Creek was trapped, 6 Coho were caught and released back into free flowing system.
- October 6th, the upper and lower portions of Byman Creek were trapped. 13 Coho were caught and released back into the free flowing section of Byman Creek.

Fry trapped: 19 Coho

Oxygen Test Results: September 8th: 10

October 2nd: 10

October 5th: 10

October 6th: 10

October 7th: 10

October 14th: 10

October 15th: 10

Recommendations; the following GPS locations indicate trapped fish, these areas should be carefully monitored for trapped fry.

GPS:N 54°31.028/W 126°26.331

GPS:N 54°31.028/W 126°25.099

GPS:N 54°31.424/W 126°24.911

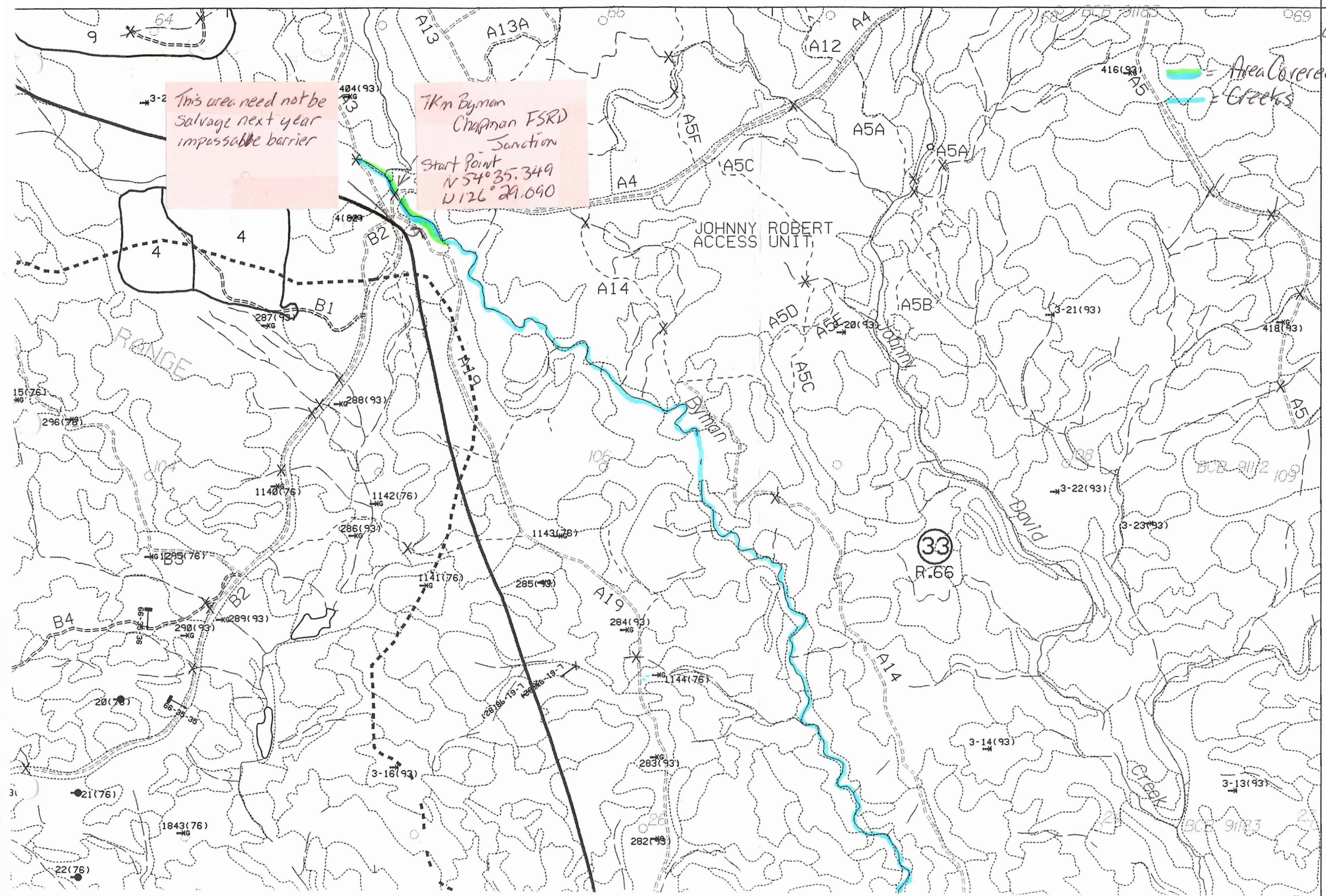
GPS:N 54°31.031/W 126°26.414

931058
Scale: 1:20,000

Area Covered
Creeks

This area need not be
salvage next year
impassable barrier

7Km Bymon
Chapman FSRD
Sanction
Start Point
N 54° 35.349
W 126° 29.090



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McQuarrie Creek

McQuarrie Creek like Richfield Creek faired very well during this year's low water event.

- Flows remained good and were further helped along by the rains October 3rd and 4th.
- October 14th a section of the upper portion of McQuarrie Creek was surveyed this area could cause some problems for fry during a low water event.

Fry trapped: 0

Oxygen Test Results: September 8th=10

October 7th=10

14th=10

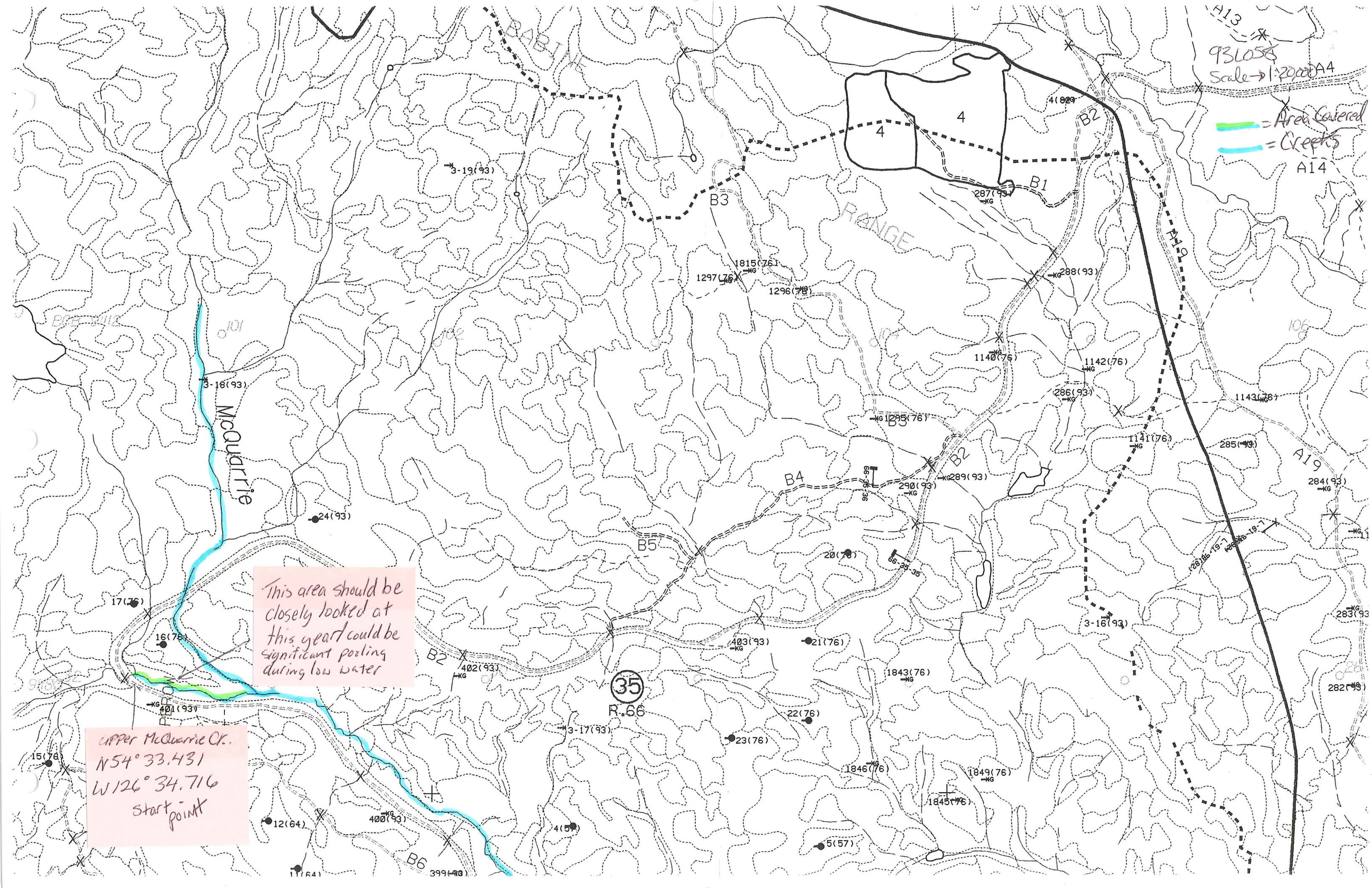
Recommendations: McQuarrie Creek can be affected by low water events. The upper section more so than the bottom sections. The GPS location listed below is where any future fry salvage operation should begin.

GPS: N 54° 32.221/W 126° 31.575

931058
Scale → 1:20,000 A4

Area Covered
= Creeks

A14



This area should be closely looked at this year could be significant pooling during low water

Upper McQuarrie Cr.
N 54° 33.431
W 126° 34.716
start point

35
R. 66

Barren Creek

Barren Creek, like Richfield and McQuarrie Creeks, was only moderately affected by this year's low water event. There is an obstruction some 20 meters down stream on Barren Creek, this may have been caused by either highway crew's work along the roadside or perhaps even a Beaver. We have not been able to determine it's exact origin. This particular obstruction slows the water down considerably on the lower portion of Barren Creek.

- October 15th a survey of the upper section of Barren Creek was conducted. Water flow was good down to a point of 1.5KM., from the GPS location listed below. Once again no surveys were done on this section until after the rains on the weekend of October 3rd and 4th of 1998.

Fry trapped: 0

Oxygen Test Results: September, 8th=10

October, 5th=10

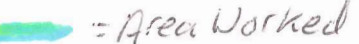
October, 7th=10

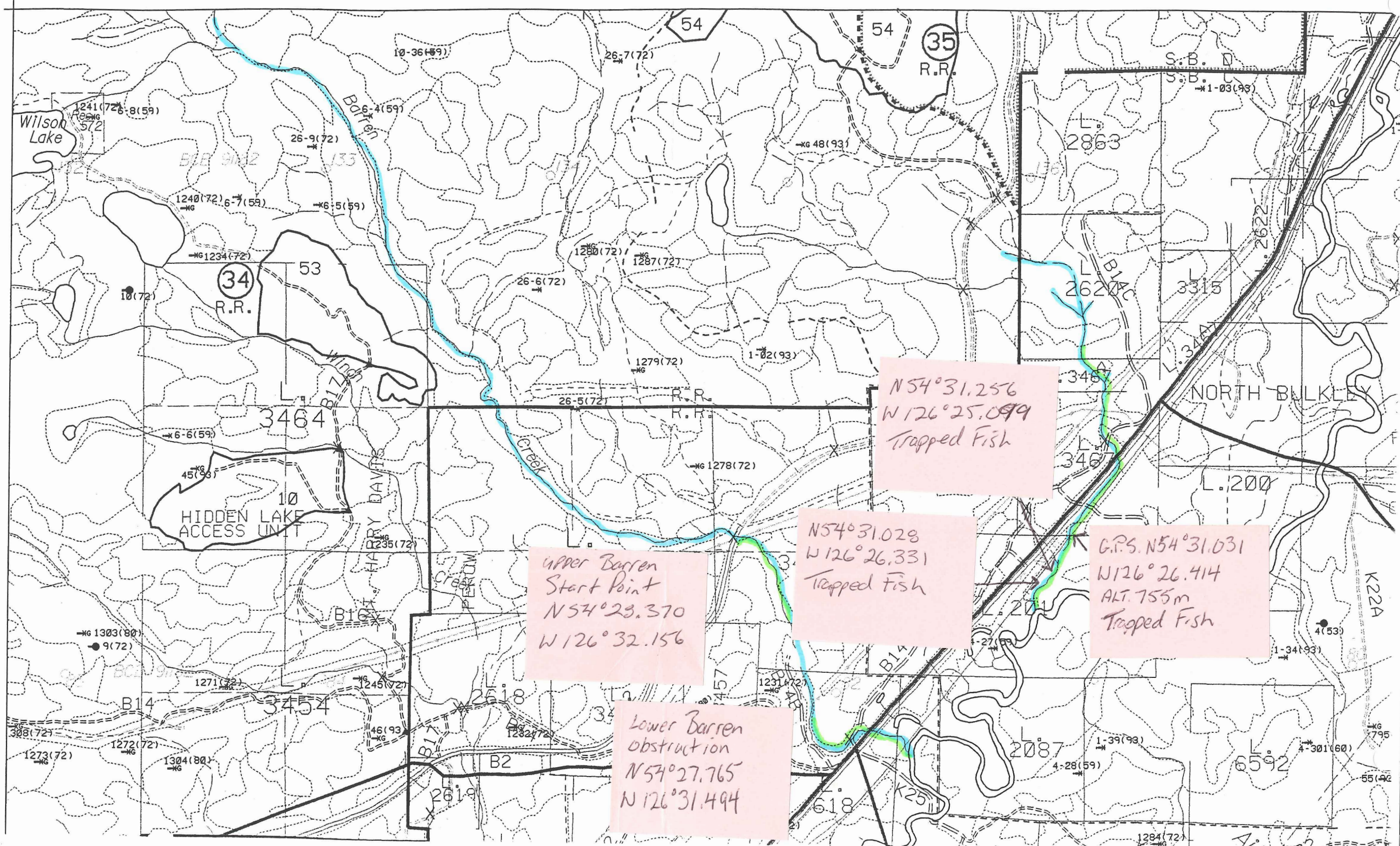
October, 14th=10

Recommendations: Barren Creek faired very well during this year's low water event. Even so the upper part could cause problems during these low water times. The GPS location listed below should be looked at next year. It was surveyed on the 15th of October, well after the rains of the 3rd and 4th of October. The upper portion of this creek resembled Byman Creek.

GPS: Upper Barren Creek, N 54° 32.221/W 6° 1231.575

931048
Scale: 1:20000

 = Creek
 = Area Worked



Lamprey Creek

Lamprey Creek was first trapped on the

- 21st of September 1998, until the 30th of September. All the fry recovered from Lamprey Creek were Chinook fry. The creek recovered well after the rain on
- The rains of October 3rd and 4th raised water levels and isolated ponds began to connect with the main stem flow. Salvage operations were discontinued.

Fry trapped: 56

Oxygen Tests Results: October 14th=10

Recommendations; Lamprey Creek is an excellent creek for continued fry salvage operations. This creek had the highest fry salvage numbers, totaling 56 Chinook fry.

GPS: N 54° 11.196/W 127° 08.334

Upper Bulkley River

Bulkley River was first walked on the
➤ 8th, 9th, 14th, 15th, and the 17th of September. Some logjams and beaver dams were located on this section of the river. These were then photographed and recorded as possible barriers to spawning fish within the Bulkley River system.

Fry trapped: 0

Recommendations; The Bulkley River although affected by this year's low water is not at as much risk as the other creeks involved in the fry salvage operation. If any further fry salvage operations continue in the system, of major concern should be logjams and beaver dams, as these may create impassible barriers to the fish migration.



Morice River

Morice River was one of the systems that managed very well during this year's low water event. This is probably due to the river's abundant source of glacier water supply. Even with this great source of water, there are areas that could still cause problems for fry. These areas are listed below as GPS coordinates. We also periodically checked the fish refuge at Kilometer 48 Morice Forest Service Road.

Fry trapped: 0

GPS: Fish Refuge N 54°10.716/W 127° 08.344

GPS: Beach at 38KM. N54°11.713/ W126°59.904

GPS: Owen Flats N 54°12.356/ W 126° 51.317

Conclusions

91 Fry were trapped in total from the Richfield, Byman and Lamprey creeks. Some of the Danger areas that have been severely affected by this year's low water event and should be examined at the onset in the future include Byman Creek ,

GPS:N 54°31.028/W 126°26.331

GPS:N 54°31.028/W 126°25.099

GPS:N 54°31.424/W 126°24.911

GPS:N 54°31.031/W 126°26.414

The Upper portion of Barren Creek,

GPS: Upper Barren Creek, N 54° 32.221/W 6° 1231.575

and Lamprey Creek should be a high priority for future Fry Salvage operations.

GPS: N 54° 11.196/W 127° 08.334

Other areas that should be monitored in future low water events, but are of lower priority include the Upper portion of McQuarrie Creek. The Upper Bulkley River should also be monitored for log jams and beaver activity.