



MINISTRY OF ENVIRONMENT
ENVIRONMENTAL STEWARDSHIP DIVISION
FISH AND WILDLIFE BRANCH

Horsefly River Angling Management Plan

January 30th, 2006

Area/Fishery Description

The Horsefly River watershed provides some of the highest fisheries values associated with the Mid-Fraser River drainage. Fisheries resources are comprised in part by a unique race of trophy size rainbow trout, kokanee, sockeye, chinook and coho salmon. Quesnel Lake rainbow trout, a biologically unique "late maturing" wild stock, rely heavily on the Horsefly River for spawning, and juvenile and sub-adult rearing. It has been estimated that the Horsefly River produces 75% of the total rainbow trout production to Quesnel Lake (MOE file data, 1990). The renowned Quesnel Lake sport fishery is dependent on maintenance of the rainbow trout population.

The Horsefly River system is approximately 98 km in length. It originates in the Quesnel Highlands and flows in a westerly direction through a variety of habitats ranging from extensive low gradient "still water" areas to abrupt cascading flows located in canyons. A 10 meter high waterfall located at km 55, creates a barrier for upstream fish migrations and defines the class 2 portion of the river.

The Horsefly River provides quality angling opportunities for Quesnel Lake rainbows that spawn and rear in the river until migrating to Quesnel Lake. Adults also migrate into the river in mid to late summer to forage on invertebrates and drifting salmon spawn. The Horsefly is recognised as one of the better, highly accessible recreational rivers in the Cariboo region.

Watershed Development and Access

Present economic activity in the Horsefly River drainage area includes logging, mining, ranching, trapping and recreational resorts. The majority of recreational activity is associated with fishing, hunting and various water sports. The town of Horsefly provides general supplies to the area and is located on the Horsefly River, 20 km upstream of Quesnel Lake. Williams Lake is the main service centre for the Horsefly region and is accessible by paved highway, 65 km to the south-west.

Access for fishing the river is by an all season forestry road (the "100" road) that parallels the Horsefly for most of its length. Where the road deviates from the river bank, foot trails are available. Angler access has varied from 70% shore based in 2000 to 37% in 2001 and 59% in 2004 (See Horsefly Creel Reports, 2002, 2004). The alternative access mode used by anglers is by drift boats. The use of specialised equipment such as boats can assist angling access but is hindered by shallow river conditions in late summer.

Angling effort by non-guided fishers has reportedly been increasing since catch and release regulations were implemented in 1987. Creel data estimates (see Horsefly Creel Reports 2001, 2004) indicate that the Horsefly River supported 934 days of angling in 2000 (209 days guided), 749 days in 2001 (196 days guided), and 647 days in 2004 (110 guided). Creel estimates have tended to under estimate overall use. The non-guided to guided ratio has been 79% to 21% in 2001, 82% to 18% in 2002 and 85% to 15% in 2004.

General Description of Fish Supply and Management Concerns

The Horsefly River offers a unique fishing opportunity, in that the majority of rainbow trout are transient and spend most of their adult life in Quesnel Lake. Fisheries management on Quesnel Lake and conversely, on the Horsefly River, effect recreational opportunities not only on the given system but also on each other. Management of the two systems is not mutually exclusive as juveniles and adults rear in both the river and the lake. Quesnel Lake currently supports the largest wild stock sport fishery in the Cariboo Region with over 20,000 angler days in 2001 (based on boat counts).

Long time anglers and resort owners have expressed concerns that the numbers of large adult trout entering the Quesnel Lake fishery has seriously declined. Although the lake and river fisheries are currently managed under very restrictive regulation, the past and current levels of effort and harvest may have impacted overall production of the late maturing rainbow trout population. In 2002, a catch and release regulation was implemented on Quesnel Lake requiring the release of all rainbow trout over 50 cm. Any reduction to the rainbow population in the lake fishery has a direct impact on the river. Similarly, stresses on the trout population in the river reduce potential recruitment to the lake population. In the event that further stock conservation measures are necessary, both the Quesnel Lake and Horsefly River fisheries will be impacted. This could include a total fishing closure on the Horsefly River.

The Horsefly River has had a documented history of temperature related fisheries management problems. The character of the system, combined with low flows during some summers, has caused water temperature to exceed levels tolerable to resident and anadromous fish. Significant mortality of sockeye salmon has occurred in the past, and it is thought by fisheries management authorities that chinook salmon and trout may also be affected. Temperature stress may cause chinook salmon to shift spawning areas. Trout become quite susceptible to post handling mortality associated with angling activity. Managers accept that catch and release fishing under temperature regimes above 18 C will result in unacceptably high post release mortalities.

Current Regulations Affecting Use

As the Horsefly is the main nursery area for Quesnel Lake's unique strain of late maturing rainbow trout, the river fishery is highly restricted to preserve the stock and yet provide reasonable stream fishing opportunities. Current regulations for the Horsefly River include:

- From Quesnel Lake to Horsefly River falls (including tributaries) - Class II, trout/char release, bait ban, artificial fly only, open June 1 to October 31.
- No angling from power boats from Woodjam Bridge to Quesnel Lake.

Use of the Fisheries Resource

According to veteran anglers, little was known of the Horsefly's value as a sport fishery prior to the 1970's and the river was primarily utilised by local area residents. Increases in angling effort by

residents and non-residents alike occurred throughout the 1970's and to the mid 1980's. Effort increased significantly following establishment of catch and release regulations in 1987.

Angling Guides

Prior to 1990, two angling guides were active on the Horsefly River. Historic guided angling allocations are summarised in Table 1. There are presently two active grandfathered guides on the river (Maitland and Englund) licensed for 110 guide days.

Table 1 Summary of Historical Guide Allocation on the Horsefly River.

Name	Licence Year	Grandfathered angler days
Stuart Maitland	1885/86 to 1990/91	50
Brian Englund	1989/90 to 1990/91	60
	TOTAL	110

Classification Rationale

Classification of the Horsefly River allows for planned development of the fisheries resource which considers the interests of both commercial and non-commercial user groups. This is especially important since unmanaged angling activity could significantly impact the quality of the fishing experience and place excessive stress on the fishery resource. Increasing commercial guiding activity must occur within the goals of maintaining angling quality and sustaining the fish resources.

Allocation of Angling Opportunity

Ease of access and the river's proximity to nearby recreational resorts and population centres will result in fishing effort increases over the next 10 years. The management objectives for the Horsefly River fishery are to:

- conserve and enhance the wild rainbow trout population upon which the sport fishery depends.
- conserve the quality aspects of the Horsefly River sport fishery.
- provide fair access to angling opportunities on the Horsefly River for all classes of anglers.
- manage angler density over the key angling areas and through the normal angling season for the Horsefly River.

Management Recommendations for the Horsefly River (Consensus Recommended from Horsefly Advisory Committee)

1) Classification

Class 2 Horsefly Mainstem (from Quesnel Lake to Horsefly falls, 350 guided angler days) and McKinley Creek (from confluence of Horsefly to McKinley Lake, 50 guided angler days)

- a) A maximum of 0.5 anglers per river km per day over an estimated 30 km of fishable water between the river mouth at Quesnel Lake and the first set of falls located 4 km upstream of the McKinley Creek confluence. This is an average of 15 anglers on the Horsefly River on any given day. The Horsefly River's accessible length for fish extends for 55 km however, a significant proportion of the river is characterised by extremely low gradient or extensive shallow riffle and is considered to be poor holding habitat for sport fish.
- b) A total expected fishing season of 117 days (July 1 to August 5 and August 10 to October 31). Despite the fact that the current open season for angling the Horsefly extends from June 1 to October 31, high water conditions during spring generally makes the river un-fishable during the month of June and high water temperatures during early August may require a fishing closure to protect fish stocks.
- c) The estimated annual capacity for a quality fishery on the Horsefly River mainstem is **1,750** angler days (table 2). The commercial angler guiding capacity is to be managed to a maximum of 20% of total capacity, or **350** guided angler days. Active grandfathered allocation of **110** guided angler days leaves **240** days available for future distribution.
- d) Allow for a maximum use of **50** days on McKinley Creek to meet the legislated number of angler days (**400**) available under 125/90. All other tributaries are to be removed from having class 2 status.
- e) Horsefly anglers will be monitored for the next three years to assess if changes to the AMP effect use. If after three years, non-guided and guided use combined exceed **1,750** the Regional Quality Waters Committee will consider implementation of available regulations to manage non-resident alien angling on the Horsefly and McKinley Creek.

Table 2. Description of River Length, Total Fishable Water and Angler Capability for the Horsefly River with tributaries remaining classified.

Geographic Description (km)	Fishable Length (km)	Angler Day Capacity .5 anglers/km and 117 days	Guide Days (20% of capacity)	Grand Fathered Days	Guide Days Available
Lower River: mouth to town of Horsefly	13	760	175	26	149
Upper River: Town of Horsefly to Falls	17	990	175	84	91
Tributaries (McKinley)		250	50	To be determined	
TOTALS	30	2000	400	110	240 *

*Not including 50 McKinley days

Under a system where only the mainstem and McKinley Creek remain classified:

- There would be a maximum of **350** days issued to angling guides on the Horsefly mainstem fro Quesnel Lake to Horsefly Falls
- There would be a maximum of **50** days issued to angling guides on McKinley Creek below McKinley Lake
- Once the **400** total days are issued there will be no increase in days available to guides without changes in legislation
- Guides will have to pay the appropriate fee associated with a class 2 non-anadromous water rod day
- Residents would require an annual classified waters license to fish the mainstem and or McKinley Creek to McKinley Lake
- Non-residents would be required to purchase classified waters license and pay the daily fee associated with angling on a class 2 water

2) Angling Guide Distribution

Angling Guide Distribution to be Restricted by Location (Upstream and Downstream of the Town Site)

- a) Angling guide operating plans would include a condition that allocated guided angler days to be distributed in the following manner:
- **50%** of guided days to be used on the lower river (below the town site)
 - **50%** of guided days to be used on the upper river (above the town site)
 - no more than **4 clients** per angling guide per day
 - no more than **5 guides** to be licensed on the classified portion of the Horsefly River and McKinley Creek at any one time
 - guide days will *not* be restricted to monthly quota

3) Temperature Closure

Horsefly to remain open, be monitored regularly, then closed for conservation when temperatures exceed 18 degree's Celsius. The river will be re-opened when temperature levels drop below 18 degree's Celsius.

- This would allow for the maximum amount of fishing opportunity on the Horsefly
- Guides and non-resident aliens should be prepared for short notice closures when temperatures exceed 18 degree's
- Closure and opening dates would be determined by daily/weekly monitoring

General Considerations and Implementation

Conservation concerns and regulation requirement to protect the wild stocks of fish will supersede this Angling Management Plan.

Once this plan has been publicly reviewed and accepted it will be signed off by the Regional Manager of Environmental Stewardship Branch and the Director of the Fish, Wildlife, Recreation and Allocation Branch.

This Angling Use Plan is subject to revision when there is legislation or regulatory change, or new information on stock status becomes available. A review of angling and fisheries management policy is being conducted. Results of this review may have an influence on the fisheries management objectives and strategies for the Horsefly River.