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THE CORPORATION OF THE DISTRICT OF SUMMERLAND

Interior Watershed Assessment

for the

TROUT CREEK WATERSHED

July 1996

1.0 INTRODUCTION

The purpose of this report is to determine the potential for cumulative hydrologic impacts on Trout Creek from past forest development and from proposed future forest development.

This report on the Trout Creek watershed (B.C. hierarchical watershed code number 310-6509) has been prepared for the Corporation of the District of Summerland. The assessment procedure used is detailed in the Forest Practices Code guidebook: **Interior Watershed Assessment Procedure Guidebook (IWAP)**, dated September 1995.

The Trout Creek watershed flows east into Okanagan Lake, near Summerland *[Figure 1]*. The Trout Creek watershed is designated as a community watershed and is used as a domestic and irrigation water supply by the District of Summerland. The entire Trout Creek watershed was assessed from the mouth of the creek at Okanagan Lake (referred to as the point of interest [POI]) to its headwaters. The majority of the Crown land in the north-east portion of the watershed is a forest license held by Riverside Forest Products Ltd. The south-west portion of the watershed is forest license held by Gorman Brothers Lumber Ltd.

2.0 WATERSHED CHARACTERISTICS

The Trout Creek watershed drains the Thompson Plateau on the west side of Okanagan Lake near Summerland located in the South Okanagan *[Figure 1]*.

The 744.30 km^2 watershed ranges from 342 m to over 1920 m above sea level with 60% of the basin above the 1370 m contour. The watershed is located within four biogeoclimatic zones: BG, PP, IDF, MS and ESSF.

The average annual total precipitation for the Trout Creek watershed is approximately 500 mm, the majority of which occurs from October to February. Approximately 60% of the total precipitation occurs as snowfall. Average annual discharge for Trout Creek at the mouth is 2.15 m^3/s.

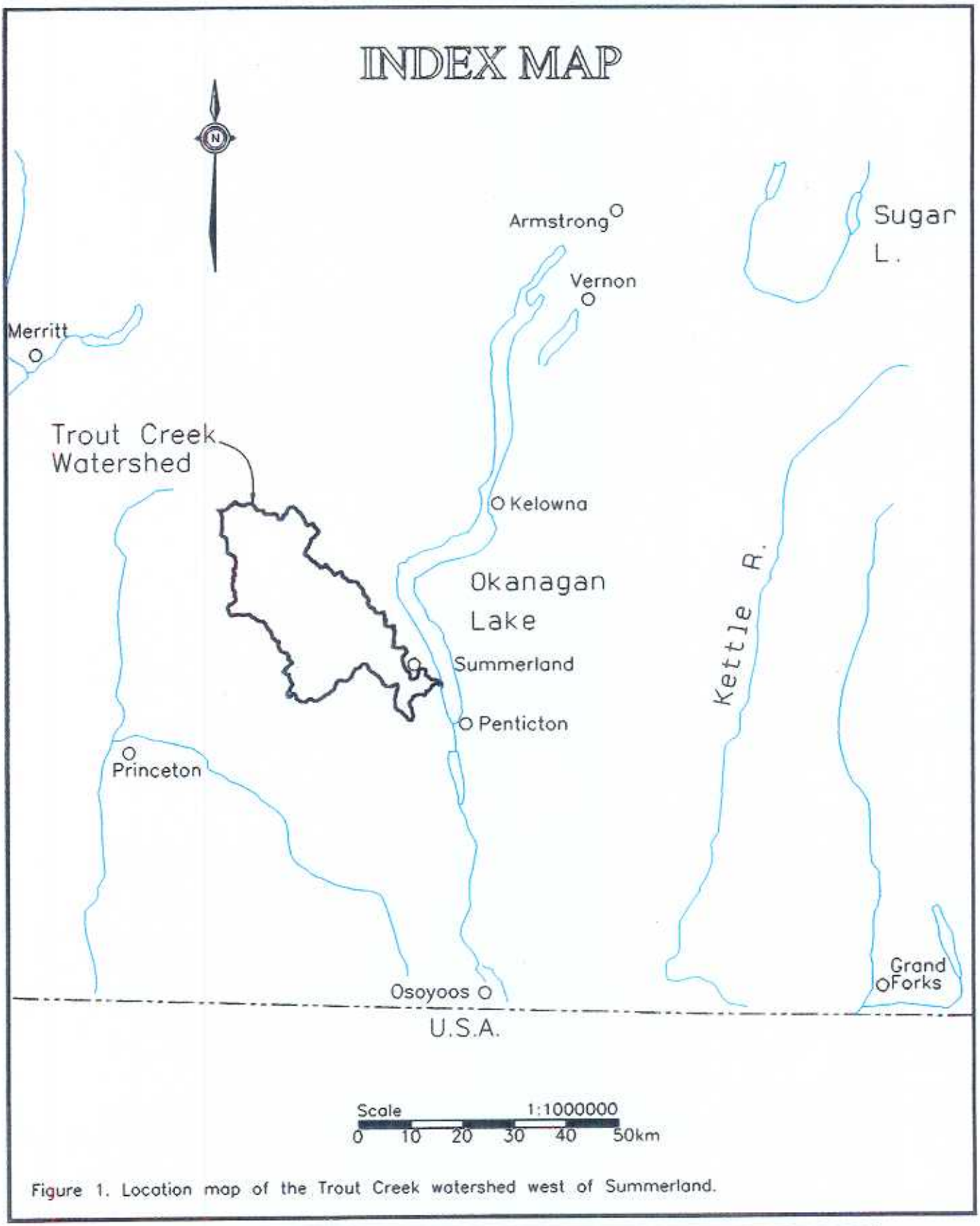

Figure 1. Location map of the Trout Creek watershed west of Summerland.

The watershed located on the Thompson Plateau is underlaid with mainly volcanic and sedimentary rocks. The Thompson Plateau consists of three general rock types: the Coryell Intrusive, the Pennask Batholith and the Tertiary Volcanics. The Coryell Intrusive and the Pennask Batholith are composed of granite, diorite and syenite. Volcanics include trachyte, andesite and basalt.

The Trout Creek watershed is characteristic of a glaciated U-shaped valley. Valley bottom surface terrain materials consist of tills, outwash deposits, late Pleistocene-earliest Holocene glacial lake deposits and areas of bare bedrock that have been molded or scraped by ice, or eroded by meltwater.

Trout Creek has approximately 255 km of fish-bearing streams based on stream gradients less than 12%. Several lakes are located in the Trout Creek watershed. A few of the largest lakes are Isintok Lake, Headwaters Lake, Thirsk Lake, Darke Lake, Whitehead Lake and Crescent Lake. Water storage has been developed on all of these lakes by Summerland to augment low summer flows in Trout Creek. Pitin Lake has been developed as a private reservior.

2.1 History of Past Forest Development

Timber harvesting activities have been conducted in the Trout watershed over the past 60 years. In the early years, partial cutting systems such as diameter limit and selective logging were employed in the lower elevation stands of timber. Over the last 30 years, more clearcut harvesting has occurred in the even-aged lodgepole pine and Englemann spruce sub-alpine fire stands at higher elevations. In the last 20 years, significant portion of the annual harvest has come from salvage logging of lodgepole pine stands infested by the mountain pine beetle.

A list of past forest development along with current equivalent clearcut area (ECA) calculations can be found in Appendix C.

3.0 METHODS

The procedure used for this assessment is detailed in the Forest Practice Code guidebook titled the **Interior Watershed Assessment Procedure Guidebook (IWAP), Level I Analysis** dated September 1995. The IWAP is a reconnaissance level analysis intended to be a coarse filter to identify the watershed or portions of watershed that may have been impacted by cumulative effects of past forest development.

The Point of Interest (POI) used for the Trout Creek watershed assessment is the mouth of Trout Creek at Okanagan Lake. The watershed was divided into a total of seven sub-basins and four residual units based on the procedure outlined in the IWAP guidebook and discussions with Steve Rowe (BC Environment, Penticton). The sub-basins and residual units are listed in Table 1.

TABLE 1
Areas of Sub-basins and Residual Units

Sub-basin or Residual Unit	Area (km^2)
Residual below the Intake	46.13
Bull Creek	47.86
Camp Creek	36.11
Darke Lake	76.64
Isintok Creek	104.45
Lost Chain Creek	114.11
North Trout	43.46
Residual above the Intake	39.49
Residual 2 above the Intake	58.76
Residual above Thirsk Lake	86.97
Upper Trout	90.32
Entire Trout Creek Watershed	744.30

The assessment procedure focused on four impact categories: peak flow, surface erosion, riparian buffers and landslides. Thirteen impact indicators were determined for each sub-basin or residual unit.

These indicators were then assessed in various combinations to determine a hazard index between zero and one for each sub-basin or residual unit. Ratings between zero and 0.5 indicate impacts of potentially low hazard; greater than 0.5 and less than 0.7 indicate impacts of potentially moderate hazard; and greater than 0.7 indicate impacts of potentially high hazard.

It is important to remember that the hazard indices indicate a **potential** for impacts only. These results were initially derived from an office assessment of the available data for a watershed. Whether or not an impact exists involved a careful examination of the field conditions associated with the impact.

The IWAP level I analysis involves the compilation and evaluation of data that describes the basic geophysical characteristics of the watershed and outlines the extent and location of forest harvesting activities in the watershed. The Ministry of Forests, BC Environment Riverside Forest Products Ltd. and Gorman Bros. Lumber Ltd. provided the following information:

- 1994 air photos
- 1:20,000 forest cover information
- TRIM digital data
- forest cover database information.

Additional watershed assessment procedure details used in the calculations are provided in Appendix A.

4.0 RESULTS OF ASSESSMENT

The potential for cumulative hydrologic impacts on Trout Creek from past forest development was assessed by completing the IWAP level I analysis (Section 4.1) and then verifying the office results with a field evaluation (Section 4.2).

4.1 Office Analysis

The results of the office analysis for the sub-basins, residual units and the entire watershed are summarized below in Table 2. The reader is encouraged to refer to Appendix B for a summary of the factors that resulted in the potential hazard ratings presented in Table 2.

The following sections provide generalized explanations for each of the impact categories and the factors that affect the potential hazard ratings. Additional information for each of the impacts are included in the IWAP guidebook.

TABLE 2
Hazard Ratings for the Trout Creek Watershed

Watershed Unit	Hazard Ratings			
	Peak Flows	Surface Erosion	Riparian Buffers	Landslides
Residual below the Intake	high	high	low	low
Residual above the Intake	low	high	low	low
Darke Creek	low	high	low	low
Isintok Creek	moderate	high	low	low
Bull Creek	low	moderate	low	low
Residual 2 above the Intake	high	high	low	low
Lost Chain Creek	moderate	low	low	low
Camp Creek	high	high	low	low
Residual above Thirsk Lake	moderate	high	low	low
North Trout	high	high	low	low
Upper Trout	high	high	low	low
Entire Trout Creek Watershed	moderate	high	low	low

4.1.1 Peak Flow

Clearcuts and roads increase peak flows by reducing the travel time for precipitation to enter streams, particularly on steeper slopes where gullies and tributary channels have been harvested and where road ditches intercept surface and sub-surface flows. Larger flows can result in increasing rates of channel change and sediment transport within the channel.

The peak flow hazard rating is based on four IWAP impact indicators: the peak flow index which is the summation of weighted ECAs for the area of the watershed above and below the H_{60} line; road density above the H_{60} line; and the road density for the entire sub-basin.

A low peak flow hazard rating indicates that impacts from forest development have had limited affect on peak flows. ECA levels above the H_{60} line would normally be less than 20% and below the H_{60} line ECA levels would be less than 30%. Road densities would be less than 0.5 km/km^2 above the H_{60} line and below 1.5 km/km^2 for the entire sub-basin.

A moderate peak flow hazard rating indicates that forest development may be having observable impacts on peak flow. ECA levels above the H_{60} line would normally be in the 20-27% range and below the H_{60} line ECA levels would be in the 30-40% range. Road densities would be in the 0.5-0.7 km/km^2 range above the H_{60} line and in the 1.5-2.1 km/km^2 range for the entire sub-basin.

A high peak flow hazard rating indicates that forest development may have had significant impacts on peak flow. ECA levels above the H_{60} line may be greater than 28% and below the H_{60} line ECA levels may be greater than 42%. Road densities may be greater than 0.7 km/km^2 above the H_{60} line and greater than 2.1 km/km^2 for the entire sub-basin.

The entire Trout Creek watershed had a moderate peak flow hazard rating (refer to Table 2). This is due to a total road density of 1.8 km/km^2 and a road density of 1.08 km/km^2 above the H_{60} line. The unweighted ECA for the entire watershed is 17%.

4.1.2 Surface Erosion

Increases in suspended sediment concentrations from surface erosion have a detrimental impact on fish, fish habitat and water quality. Erosion of forest roads is one of the most significant causes of increased sedimentation within watersheds.

The surface erosion hazard rating for the watershed is determined from five IWAP impact indicators: the density of roads; the density of roads on erodible soils; the density of roads within 100 m of a stream; the density of roads on erodible soils within 100 m of a stream; and the number of active stream crossings.

A low hazard rating indicates that forest development may have had little to no observable impacts on surface erosion. Road densities may be less than 1.5 km/km^2 for the entire sub-basin; roads less than 100 m from a stream may be less than 0.20 km/km^2; roads on erodible soils and less than 100 m from a stream may be less than 0.10 km/km^2; and the number of stream crossings is less than 0.40 /km.

A high hazard rating indicates that forest development may have had a significant impact on surface erosion. Road densities may be greater than 1.94 km/km^2 for the entire sub-basin, roads less than 100 m from a stream may be greater than 0.30 km/km^2, roads on erodible soils and less than 100 m from a stream may be greater than 0.16 km/km^2 and the number of stream crossings is less than 0.60 /km.

The entire Trout Creek watershed had a high surface erosion hazard rating (refer to Table 2). This is due to a total road density of 1.8 km/km^2 and a road density of 0.67 km/km^2 on erodible soils.

4.1.3 Riparian Buffers

Riparian buffers are important because forest cover stabilizes the stream banks, provides stream shading and is of critical importance to stream ecosystems. The IWAP impact indicators used for determining the riparian buffer hazard rating are: the portion of stream logged; portion of fish-bearing stream logged; and portion of mainstem logged.

A low hazard rating indicates that forest development has had little or no impact on riparian buffers. The portion of stream logged could be less than 0.18 km/km and the portion of fish-bearing stream logged is less than 0.25 km/km. Where hazard ratings are low, limited field work is recommended to confirm this rating.

The entire Trout Creek watershed had a low riparian buffer hazard rating (refer to Table 2). This is consistent with the small proportion of forest development within riparian buffers in the watershed.

4.1.4 Landslides

Three main landslide-related concerns are: the potential for slides to occur in a particular area; the potential for the slide debris to enter a stream; and the potential for the transfer of material downstream after it has entered a watercourse. The risk of landslides increases when the forest cover and soils on the steeper slopes are disturbed by road construction or forest harvesting.

The landslide hazard rating is determined from three impact indicators: the density of landslides; the density of roads on unstable slopes; and the density of streambanks logged on slopes > 60%.

A low hazard rating indicates that forest development has had little or no affect on landslides. The density of landslides would be less than 0.10 no./km^2; roads on unstable slopes would be less than 0.15 km/km^2; and the density of streambanks logged on slope > 60% would be less than 0.15 km/km^2.

The entire Trout Creek watershed had a low landslide hazard rating (refer to Table 2). This is consistent with the small proportion of high hazard terrain within the watershed.

4.2 Field Evaluation

A field evaluation was carried out in June 1996. The hazard ratings produced by the office analysis are only an indicator of potential impacts from past forest development and may not correctly represent the conditions that actually exist in the field. Thus, the purpose of the field evaluation was to confirm or revise the hazard ratings derived from the office analysis.

Table 3 presents the revised hazard ratings as a result of field work. The following sections summarize the results of the field evaluation. Hazard ratings that have been revised and those that remain high are addressed and justified in the following discussion.

TABLE 3
Revised Hazard Ratings for the Trout Creek Watershed
(Based on a Field Evaluation)

	Hazard Ratings			
Watershed Unit	**Peak Flows**	**Surface Erosion**	**Riparian Buffers**	**Landslides**
Residual below the Intake	high	high	low	low
Residual above the Intake	low	moderate*	low	low
Darke Creek	low	high	low	low
Isintok Creek	moderate	moderate*	low	low
Bull Creek	low	moderate	low	low
Residual 2 above the Intake	moderate*	moderate*	low	low
Lost Chain Creek	moderate	high*	low	low
Camp Creek	high	high	low	low
Residual above Thirsk Lake	moderate	moderate*	low	low
North Trout	moderate*	high	low	low
Upper Trout	moderate*	high	low	low
Entire Trout Creek Watershed	moderate	moderate*	low	low

Note: * indicates hazard ratings that have been revised based on the field evaluation

4.2.1 Residual Below the Intake

Forest development impacts were not assessed in the field in this residual unit due to the amount of rural and urban development. Development other than forest development is beyond the scope of the IWAP. Therefore, hazard rating values may not reflect the actual impacts that have occurred in this portion of the watershed (i.e. agricultural development, urban development and channelization of Trout Creek adjacent to Okanagan Lake) *[Photograph 1]*.

Several old roads are present in this portion of the watershed on Crown land. These roads should be reviewed to determine requirements for road deactivation in order to reduce potential surface erosion problems and potential hazards that may exist to human life.

4.2.2 Residual above the Intake

Surface erosion is a concern in the Residual above the Intake due to the density of roads on erodible soils and the number of active stream crossings.

A. Peak Flow

The field inspection confirmed the low peak flow hazard rating. Channels inspected were found to be stable with very little evidence of impacts from past forest development *[Photograph 2]*.

B. Surface Erosion

Extensive surface erosion was not observed in this residual unit, thus the high hazard rating has been reduced to moderate. The modification is attributed to very little evidence of road running surface rutting or rills, no apparent sediment deposition in ditchlines or streams, and the lack of ditchline or cutbank erosion. Proper deactivation of roads could further reduce the surface erosion hazard rating.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers appear to be stable and not impacted from past forest development. The CPR railway (now abandoned) was built directly adjacent to Trout Creek throughout this residual unit and channelizes the flow in some locations. This is not viewed as a major riparian buffer impact since the creek is also confined by a very deep bedrock canyon.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. One landslide observed in the field may have been associated with the development of the powerline that crosses the watershed.

4.2.3 Darke Creek Sub-basin

Surface erosion is a concern in the Darke Creek sub-basin due to the density of roads on erodible soils and the number of active stream crossings.

A. Peak Flow

The field inspection confirmed the low peak flow hazard rating. Channels inspected were found to be stable with very little evidence of impacts from past forest development.

B. Surface Erosion

Based on the field observations, the surface erosion hazard rating should be maintained at high. Darke Creek flows sub-surface in the lower reaches of the watershed, limiting the impact of surface erosion on Trout Creek *[Photograph 3]*.

However, roads throughout the Darke Lake Park (in the upper sub-basin) had extensive surface erosion and should be deactivated *[Photograph 4]*. Surface erosion from these roads is entering Darke Creek and could impact resident fish in both the creek and Darke Lake. Proper deactivation of roads should reduce the surface erosion hazard rating.

C. Riparian Buffers

Riparian buffers on private land - through the middle and lower reaches of the sub-basin, - have been impacted by agricultural activities *[Photograph 5]*. These impacts are considered to be beyond the scope of this report, therefore, the low riparian buffer hazard rating has been maintained.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. There were no landslides or fill failures observed in the field.

4.2.4 Isintok Creek Sub-basin

Peak flow and surface erosion are a concern in the Isintok Creek sub-basin. The moderate peak flow hazard rating is attributed to the current ECA above the H_{60} line and the road density above the H_{60} line. The high

surface erosion hazard rating is associated with the density of roads on erodible soil, the high road density, the length of roads near streams and the number of active stream crossings.

A. Peak Flow

Evidence of impacts from increased peak flows were not observed in the field *[Photograph 6]*. Isintok Lake has an outlet control structure, therefore, peak flow increases above the lake will be buffered by the lake.

The moderate hazard rating may be reduced to low after proper deactivation of roads to restore natural drainage patterns.

B. Surface Erosion

Extensive surface erosion was not observed in the Isintok Creek sub-basin, therefore, the high hazard rating has been reduced to moderate. The modification is attributed to very little evidence of road running surface rutting or rills, no apparent sediment deposition in ditchlines or streams, and the lack of ditchline or cutbank erosion. Proper deactivation of roads could further reduce the surface erosion hazard rating.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers were not logged and are currently forested with mature conifers.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. One landslide was identified from airphotos but was not assessed in the field.

4.2.5 Bull Creek Sub-basin

Surface erosion is a concern in the Bull Creek sub-basin due to the density of roads within 100 m of a stream and the number of active stream crossings.

A. Peak Flow

The field inspection confirmed the low peak flow hazard rating. Channels inspected were found to be stable with very little evidence of impacts from past forest development *[Photograph 7]*.

B. Surface Erosion

Throughout the Bull Creek sub-basin, there was little evidence of extensive surface erosion *[Photograph 8]*. Based on the field observations, the surface erosion hazard rating has been maintained at moderate.

The moderate hazard rating has been maintained due to very little evidence of road running surface rutting or rills, no apparent sediment deposition in ditchlines or streams and the lack of ditchline or cutbank erosion. Proper deactivation of roads should further reduce the moderate surface erosion hazard rating.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers were not logged and are currently forested with mature conifers.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. There were no landslides observed in the field.

4.2.6 Residual 2 above the Intake

Peak flow and surface erosion are a concern in the Residual 2 above the Intake. The high hazard rating for peak flows is attributed to the high road density. The high surface erosion hazard rating is associated with the density of roads on erodible soils and the number of active stream crossings.

A. Peak Flow

Based on the field observations, the peak flow hazard rating can be reduced to moderate in this residual unit *[Photograph 9]*. Stream channels appeared stable with no evidence of increased peak flows. Thirsk Lake - which is above this residual unit - will also buffer any potential peak flow impacts from the watershed above the lake.

The peak flow hazard rating could be reduced to low upon proper deactivation of inactive roads and restoration of natural drainage patterns.

B. Surface Erosion

Extensive surface erosion was not observed in this residual unit, thus the high hazard rating has been reduced to moderate.

The modification is attributed to very little evidence of road running surface rutting or rills, no apparent sediment deposition in ditchlines or streams, and the lack of ditchline or cutbank erosion. Proper deactivation of roads could further reduce the surface erosion hazard rating.

Forest development on private land has the potential to create a large amount of surface erosion due to the high density of skid roads. Forest development on private land should be assessed further to determine potential impacts.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers appear to be stable and not impacted from past forest development. Agriculture activities have impacted riparian buffers along portions of Trout Creek *[Photograph 10]*. Private landowners should be encouraged to restore riparian buffers to protect channel stability and water quality.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. There were no landslides observed in the field.

4.2.7 Lost Chain Creek Sub-basin

Surface erosion is the most significant concern in the Lost Chain Creek sub-basin. Based on the field evaluation the surface erosion hazard rating was modified from low to high. The moderate peak flow hazard rating was viewed as a minor concern, attributed to the road density above the H_{60} line.

A. Peak Flow

Evidence of impacts from increased peak flows were not observed in the field *[Photograph 11]*. Stream channels appeared to be stable. The moderate hazard rating may be reduced to low after proper deactivation of roads to restore natural drainage patterns.

B. Surface Erosion

Extensive surface erosion was observed on roads in the Lost Chain Creek sub-basin, therefore, the hazard rating has been increased from low to high *[Photographs 12 and 13]*. The modification is attributed to the combination of erodible soils that were not identified as erodible on soil maps and lack of management of runoff from road running surfaces.

Proper deactivation of roads could reduce the revised surface erosion hazard rating. A soil erosion specialist should be consulted for any future road development in this area.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers were not logged and are currently forested with mature conifers.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. There were no landslides observed in the field.

4.2.8 Camp Creek Sub-basin

Peak flow and surface erosion are a concern in the Camp Creek sub-basin. The high hazard rating for peak flows is attributed to the current ECA above the H_{60} line and the high road density. The high surface erosion hazard rating is associated with the density of roads on erodible soil, the high road density, the length of roads near streams and the number of active stream crossings.

A. Peak Flow

Evidence of possible impacts from increased peak flows were observed on two tributary channels to Camp Creek. One channel had two landslides associated with it, thus, complicating the distinction between increase peak flow and landslide related impacts *[Photograph 14]*. The other channel appeared to have active bed movement which may be associated with increased peak flows *[Photographs 15 and 16]*.

Evidence of impacts from increased peak flows were not observed in the mainstem of Camp Creek *[Photograph 17]*. High road densities redirecting subsurface water appear to be the major cause of potentially increased peak flows. Therefore, roads throughout this sub-basin should be deactivated to restore natural drainage patterns.

B. Surface Erosion

Very few of the roads throughout this sub-basin have been adequately deactivated. As a result, surface and ground water flow is being intercepted and concentrated on road surfaces and ditchlines *[Photographs 18 and 19]*.

These concentrated flows are increasing erosion in the ditch and on the road running surface, thus, increasing the potential for the

delivery of sediment into stream channels. Proper deactivation of roads should reduce the high surface erosion hazard.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating *[Photograph 20]*. Generally, riparian buffers were not logged and a currently forested with mature conifers.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. Two landslides observed in the field were related to road development *[Photograph 21]*. Material from these two slides directly impacted a major tributary to Camp Creek, resulting in sediment deposition into Camp Creek.

4.2.9 Residual Above Thirsk Lake

Peak flow and surface erosion are a concern in the residual unit above Thirsk Lake. The moderate hazard rating for peak flows is attributed to the current ECA above the H_{60} line, the road density above the H_{60} line and the total road density. The high surface erosion hazard rating is associated with the amount of roads on erodible soils and the number of active stream crossings.

A. Peak Flow

Evidence of impacts from increased peak flows were not observed in the field *[Photographs 22 and 23]*. Many channels throughout this sub-basin are boulder controlled and appear stable. The moderate hazard rating may be reduced after proper deactivation of roads to restore natural drainage patterns.

B. Surface Erosion

Extensive surface erosion was not observed in this residual unit, thus the hazard rating has been reduced to moderate. The modification is attributed to very little evidence of road running surface rutting or rills, no apparent sediment deposition in ditch lines or streams, and the lack of ditchline or cutbank erosion.

However, one area of particular concern is the amount of skid trails from logging on private land *[Photograph 24]*. Proper deactivation of roads should further reduce the surface erosion hazard rating.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers were not logged and are currently forested with mature conifers.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. There were no landslides observed in the field.

4.2.10 North Trout Creek Sub-basin

Peak flow and surface erosion are a concern in the North Trout Creek sub-basin. The high hazard rating for peak flows is attributed to the current ECA above the H_{60} line and the road density above the H_{60} line. The high surface erosion hazard rating is associated with the high road density, the length of roads near streams and the number of active stream crossings.

A. Peak Flow

Evidence of impacts from increased peak flows were not observed in the field *[Photograph 25]*. Many channels throughout this sub-basin are boulder controlled and appear stable.

The high hazard rating has been reduced to moderate, based upon the observed stability of channels throughout this sub-basin. The revised moderate hazard rating may be reduced further after proper deactivation of roads to restore natural drainage patterns.

B. Surface Erosion

Based on the field observations, the surface erosion hazard rating has been maintained at high *[Photograph 26]*. Throughout this sub-basin there are numerous wood culverts that are collapsing.

Until the road inventory is reduced to those roads that are required for ongoing development - and the wood culverts are replaced or deactivated - there will continue to be widely dispersed sources of sediment that can have a cumulative impact on water quality. Proper deactivation of roads will reduce the high surface erosion hazard rating.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers were not logged and are currently forested with mature conifers.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. Three landslides observed in the field were not evident from air photographs.

Two of these landslides - located in the upper North Trout Creek - probably occurred 20 years ago and appear to have been related to poor road drainage *[Photographs 27, 28 and 29]*. The third landslide - located north of Whitehead Lake - occurred last spring and also appears to have been related to poor road drainage. All three landslides input sediment directly into North Trout Creek.

4.2.11 Upper Trout Creek Sub-basin

Peak flow and surface erosion are a concern in the Upper Trout Creek sub-basin *[Photograph 30]*. The high hazard rating for peak flows is attributed to the current ECA above the H_{60} line, the road density above the H_{60} line and the total road density. The high surface erosion hazard rating is associated with the amount of roads on erodible soil and the number of active stream crossings.

A. Peak Flow

In general, evidence of impacts from increased peak flows were not observed in the field *[Photograph 31]*. Many channels throughout this sub-basin are boulder controlled and appear stable without any evidence of increased peak flows.

Portions of Trout Creek flowing between Trout Main and the Old Trout Main show evidence of channel instability due to past stream side logging *[Photograph 32]* and cattle grazing *[Photograph 33]*. Loss of root strength from harvesting several cutting permits (i.e. CP 87 in 1994 and CP 40 in 1992) up to the stream edge has reduced bank stability.

The primary problem appears to be caused by cattle grazing. Grazing has compacted and trampled channel banks in numerous locations along Trout Creek. In addition, cattle browse and trampling on riparian vegetation (i.e. willow) have greatly reduced the stability and complexity of the stream banks and channel.

The high hazard rating has been reduced to moderate based upon the observed stability of channels throughout this sub-basin. The revised moderate hazard rating may be reduced further after proper deactivation of roads to restore natural drainage patterns and management of cattle.

B. Surface Erosion

Based on the field observations, the surface erosion hazard rating has been maintained at high *[Photographs 34 and 35]*. There are numerous wood culverts throughout this sub-basin that are collapsing.

Until the road inventory is reduced to those roads that are required for ongoing development - and the wood culverts are replaced or deactivated - there will continue to be widely dispersed sources of sediment that can have a cumulative impact on water quality. Proper deactivation of roads will reduce the high surface erosion hazard rating.

C. Riparian Buffers

The field evaluation confirmed the low riparian buffer hazard rating. Generally, riparian buffers were not logged and are currently forested with mature conifers.

Riparian buffers have been harvested in several locations along Trout Creek, between Trout Main and the Old Trout Main. On the older blocks, the deciduous species have recovered vigorously - providing some shading along the stream. On more recent blocks (CP 87 and CP 40), stream shading was minimal. The lack of stream shading may increase stream temperatures which, in turn, can affect both water quality and resident fish populations.

Opportunities for restoration are limited in these riparian areas since the natural regeneration of these blocks will return the riparian buffers to predisturbance levels over time. The elimination of cattle grazing directly adjacent to Trout Creek will enhance the regeneration of willows and conifers in these riparian areas.

D. Landslides

The field evaluation confirmed the low landslide hazard rating. There were no landslides observed in the field.

5.0 CONCLUSIONS

Based on the field review and the office assessment, the overall hazard ratings for the entire Trout Creek watershed were moderate to low. The entire watershed had a moderate peak flow hazard rating. This is consistent with an unweighted ECA value of 17% for the entire watershed and a total road density of 1.8 km/km^2. In general, the majority of stream channels appeared stable with no evidence of any impact from increased peak flows.

Based on the field evaluation, the surface erosion hazard rating for the entire Trout Creek watershed was modified from high to moderate. In general, extensive surface erosion was not observed throughout the watershed and was only concentrated in a few specific locations.

Riparian buffers and landslide hazard ratings were both low for the entire Trout Creek watershed. This is consistent with the small proportion of riparian areas developed and the small portion of unstable ground developed in the watershed.

The Camp Creek sub-basin and the Residual below the Intake had a high peak flow hazard rating, based on both the office assessment and the field evaluation. The hazard rating generated for the Residual below the Intake should be used with caution since the majority of this sub-unit has rural or urban development (which is beyond the scope of the IWAP assessment procedure).

The following sub-basins and residual units had a moderate peak flow hazard rating: Isintok Creek, Lost Chain Creek, North Trout Creek, Upper Trout Creek sub-basins and the Residual above Thirsk Lake.

High surface erosion hazard ratings were generated for five of the 11 sub-basins and residual units, based on the office assessment and the field evaluation. The six remaining sub-basins and residual units had a moderate surface erosion hazard rating. The high surface erosion hazard ratings are associated with the amount of roads on erodible soil, the length of roads within 100 m to streams and the number of active stream crossings.

A low riparian buffer hazard rating was determined for all of the sub-basins and residual units based on both the office assessment and the field evaluation.

A low landslide hazard rating was assigned to all of the sub-basins and residual units, based on both the office assessment and the field evaluation.

6.0 SUMMARY OF CONCERNS AND RECOMMENDATIONS

- An ECA of 31.8 % and a road density of 2.39 km/km^2 are a concern in the Camp Creek sub-basin. Evidence of impacts from increased peak flows have been observed on two tributary channels to Camp Creek. Roads appeared to be redirecting subsurface water. Proper road deactivation will restore natural drainage patterns and minimize potential peak flow impacts.

- Surface erosion is a concern in the Camp Creek sub-basin because very few of the roads have been adequately deactivated. These roads are currently intercepting and concentrating surface and ground water flow down road surfaces and ditchlines.

- Extensive surface erosion was observed on road running surfaces in Darke Lake Park. Road deactivation in this area will minimize further surface erosion into Darke Creek and Darke Lake.

- Extensive surface erosion was observed on roads in the Lost Chain Creek sub-basin. Road surfaces are highly erodible and require deactivation. A soil erosion specialist should be consulted for any future road development in this area.

- Several inactive roads throughout the Trout Creek watershed have not been deactivated. Until the road inventory is reduced to those roads that are required for ongoing development, there will continue to be widely dispersed sources of sediment that can have a cumulative impact on water quality. Proper deactivation of inactive roads will reduce the potential surface erosion hazards.

- A landslide that occurred this past spring - located north of Whitehead Lake - has deposited sediment directly into North Trout Creek. Stabilization of this landslide is required to prevent further sediment entering North Trout Creek.

- Private landowners should be encouraged to maintain riparian buffers around all streams to protect channel stability and water quality.

- Cattle grazing adjacent to mainstem streams should be avoided to protect channel stability and water quality.

APPENDICES

APPENDIX A

Watershed Assessment
Procedure Details

APPENDIX A

WATERSHED ASSESSMENT PROCEDURE DETAILS

Procedures outlined in the **Interior Watershed Assessment Procedure (IWAP) Guidebook**, dated September 1995, formed the basis for this assessment. Additional information on data sources and calculations are outlined below.

Equivalent clearcut areas (ECA) were determined for each cutblock (Area) from forest inventory planning (FIP) digital files and summed to get the totals for each of the sub-basins or residual units. The calculations were based on tree age/height relationships. Trees were assumed to grow 30 cm per year.

Hydrologic recovery was assumed to follow the procedure outlined in Appendix 8 in the IWAP guidebook.

Road lengths used in the analysis include all the mainline, branch and spur roads marked on the 1:20,000 scale maps. All road lengths were included and no allowances were made for deactivated roads.

Erodible soils were grouped into erodibility classes (high, moderate and low) based on the rating scheme outlined in Table 6-1 in the IWAP Guidebook. Erodibility groups were based on soil texture and slope class. Soil texture and slope class were determined from soil maps for the Penticton and Tulameen area.

Unstable or high hazard terrain was defined as slopes greater than or equal to 60%.

APPENDIX B

IWAP Spreadsheets, Residual Units
and Entire Watershed

Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)		(2)	(3)	(4)
Watershed Name?	Residual Below				
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1				
Watershed area?	46.1	sq.km.	*		
Peak Flow and Surface Erosion					
Elevation of H60?	1317	m.			
ECA above H60?	0.0	sq.km.	*		
ECA below H60?	21.3	sq.km.	*		err
Road length above H60?	121.3	km.	*		
Road length below H60?	0.3	km.	*		
Surface Erosion					
Length of road on erodable soils?	49.2	km.	*		
Length of road within 100 m. of stream?	6.0	km.	*		
Length of road on erodable soils within 100 m. of stream?	3.8	km.	*		
Number of active stream crossings?	8		*		
Riparian Buffer					
Total stream length?	62.4	km.	*		
Length of stream logged?	0.3	km.	*		
Total length of fish bearing streams?	19.3	km.	*		
Length of fish bearing streams logged?	0.3	km.	*		
Landslides					
Number of landslides?	0		*		
Length of road on unstable slopes?	2.0	km.	*		
Length of stream with logged banks and on slopes > 60%	0.0	km.	*		
Other Land Use and Watershed Characteristics					
Is there range use next to streams?	Yes				
Is there mining close to streams?	No				
Is there ATV use close to streams?	Yes				
Hydrologic zone?					
Percent area of crown land?	47.0				
Percent area of private land?	53.0				
Percent area with unstable slopes?	6.7				
Percent area with erodable soils?	39.5				
Dominant bedrock geology?					
Is there a fisheries (DFO or MoE) thermal concern?					

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Residual Below
Map units were identified as: km. and sq.km.

	Indicator	(5) Score	(6) Hazard Index
Peak Flow			
Index above H60	0.00		
Index below H60	0.46		
1 Total Peak Flow Index	0.46	0.77	
2 Road density above H60	2.63 km/sq.km.	1.00	
3 Total road density (See note below)	2.64 km/sq.km.	0.88	**0.88**
Surface Erosion			
4 Roads on erodable soils	1.07 km/sq.km.	1.00	
5 Roads within 100 m of a stream	0.13 km/sq.km.	0.33	
6 Roads that are both of the above	0.08 km/sq.km.	0.42	
7 Active stream crossings	0.17 no./sq.km.	0.22	
8 Total road density (See note below)	2.64 km/sq.km.	1.00	**1.00**
Riparian Buffer			
9 Portion of stream logged?	0.00 km/km.	0.02	
10 Portion of fish bearing streams logged?	0.02 km/km.	0.03	**0.03**
Landslides			
11 Landslide density	0.00 no./sq.km.	0.00	
12 Roads on unstable slopes	0.04 km/sq.km.	0.14	
13 Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.07**

Warning.
There is a problem in the raw data. See column 4 on data entry page.

Notes:
The calculations of scores for #3 and #8 above are slightly different.
This spreadsheet is based on the IWAP Guidebook dated September 1995.
However, the spreadsheet is subject to change. Please contact a Forest Service regional hydrologist to ensure that you are using the latest version.

Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)		(2)	(3)	(4)
Watershed Name?	Residual Above 1				
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1				
Watershed area?	104.5	sq.km.		*	
Peak Flow and Surface Erosion					
Elevation of H60?	1317	m.			
ECA above H60?	5.3	sq.km.		*	
ECA below H60?	1.5	sq.km.		*	
Road length above H60?	49.5	km.		*	
Road length below H60?	156.6	km.		*	
Surface Erosion					
Length of road on erodable soils?	92.0	km.		*	
Length of road within 100 m. of stream?	13.5	km.		*	
Length of road on erodable soils within 100 m. of stream?	9.0	km.		*	
Number of active stream crossings?	16			*	
Riparian Buffer					
Total stream length?	181.3	km.		*	
Length of stream logged?	3.0	km.		*	
Total length of fish bearing streams?	34.9	km.		*	
Length of fish bearing streams logged?	2.5	km.		*	
Landslides					
Number of landslides?	1			*	
Length of road on unstable slopes?	2.5	km.		*	
Length of stream with logged banks and on slopes > 60%	0.1	km.		*	
Other Land Use and Watershed Characteristics					
Is there range use next to streams?	Yes				
Is there mining close to streams?	No				
Is there ATV use close to streams?	Yes				
Hydrologic zone?					
Percent area of crown land?	65.0				
Percent area of private land?	35.0				
Percent area with unstable slopes?	3.2				
Percent area with erodable soils?	33.9				
Dominant bedrock geology?					
Is there a fisheries (DFO or MoE) thermal concern?					

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Residual Above 1
Map units were identified as: km. and sq.km.

	Indicator	(5) Score	(6) Hazard Index
Peak Flow			
Index above H60	0.08		
Index below H60	0.01		
1 Total Peak Flow Index	0.09	0.15	
2 Road density above H60	0.47 km/sq.km.	0.47	
3 Total road density (See note below)	1.97 km/sq.km.	0.66	**0.43**
Surface Erosion			
4 Roads on erodable soils	0.88 km/sq.km.	1.00	
5 Roads within 100 m of a stream	0.13 km/sq.km.	0.32	
6 Roads that are both of the above	0.09 km/sq.km.	0.43	
7 Active stream crossings	0.15 no./sq.km.	0.19	
8 Total road density (See note below)	1.97 km/sq.km.	0.72	**0.86**
Riparian Buffer			
9 Portion of stream logged?	0.02 km/km.	0.06	
10 Portion of fish bearing streams logged?	0.07 km/km.	0.14	**0.14**
Landslides			
11 Landslide density	0.01 no./sq.km.	0.05	
12 Roads on unstable slopes	0.02 km/sq.km.	0.08	
13 Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.05**

Notes:
The calculations of scores for #3 and #8 above are slightly different.
This spreadsheet is based on the IWAP Guidebook dated September 1995.
However, the spreadsheet is subject to change. Please contact a Forest Service regional hydrologist to ensure that you are using the latest version.

Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)	(2)	(3)	(4)
Watershed Name?	Darke			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	76.6	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	4.1	sq.km.	*	
ECA below H60?	2.5	sq.km.	*	
Road length above H60?	30.8	km.	*	
Road length below H60?	75.8	km.	*	
Surface Erosion				
Length of road on erodable soils?	49.9	km.	*	
Length of road within 100 m. of stream?	7.3	km.	*	
Length of road on erodable soils within 100 m. of stream?	5.2	km.	*	
Number of active stream crossings?	7		*	
Riparian Buffer				
Total stream length?	119.8	km.	*	
Length of stream logged?	2.2	km.	*	
Total length of fish bearing streams?	8.9	km.	*	
Length of fish bearing streams logged?	1.9	km.	*	
Landslides				
Number of landslides?	0		*	
Length of road on unstable slopes?	1.5	km.	*	
Length of stream with logged banks and on slopes > 60%	0.0	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	73.3			
Percent area of private land?	26.7			
Percent area with unstable slopes?	3.7			
Percent area with erodable soils?	35.5			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Darke
Map units were identified as: km. and sq.km.

	Indicator		(5) Score	(6) Hazard Index
Peak Flow				
Index above H60	0.08			
Index below H60	0.03			
1 Total Peak Flow Index	0.11		0.19	
2 Road density above H60	0.40	km/sq.km.	0.40	
3 Total road density (See note below)	1.39	km/sq.km.	0.46	**0.35**
Surface Erosion				
4 Roads on erodable soils	0.65	km/sq.km.	0.95	
5 Roads within 100 m of a stream	0.10	km/sq.km.	0.24	
6 Roads that are both of the above	0.07	km/sq.km.	0.34	
7 Active stream crossings	0.09	no./sq.km.	0.11	
8 Total road density (See note below)	1.39	km/sq.km.	0.46	**0.70**
Riparian Buffer				
9 Portion of stream logged?	0.02	km/km.	0.06	
10 Portion of fish bearing streams logged?	0.21	km/km.	0.42	**0.42**
Landslides				
11 Landslide density	0.00	no./sq.km.	0.00	
12 Roads on unstable slopes	0.02	km/sq.km.	0.07	
13 Streams >60% and banks logged	0.00	km/sq.km.	0.00	**0.03**

Notes:
The calculations of scores for #3 and #8 above are slightly different.
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)	(2)	(3)	(4)
Watershed Name?	Isintok			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	43.5	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	5.9	sq.km.	*	
ECA below H60?	0.8	sq.km.	*	
Road length above H60?	45.9	km.	*	
Road length below H60?	14.9	km.	*	
Surface Erosion				
Length of road on erodable soils?	27.0	km.	*	
Length of road within 100 m. of stream?	11.0	km.	*	
Length of road on erodable soils within 100 m. of stream?	6.9	km.	*	
Number of active stream crossings?	11		*	
Riparian Buffer				
Total stream length?	74.3	km.	*	
Length of stream logged?	0.4	km.	*	
Total length of fish bearing streams?	15.0	km.	*	
Length of fish bearing streams logged?	0.3	km.	*	
Landslides				
Number of landslides?	1		*	
Length of road on unstable slopes?	0.3	km.	*	
Length of stream with logged banks and on slopes > 60%	0.0	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	93.0			
Percent area of private land?	7.0			
Percent area with unstable slopes?	1.1			
Percent area with erodable soils?	27.4			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Isintok
Map units were identified as: km. and sq.km.

	Indicator	(5) Score	(6) Hazard Index
Peak Flow			
Index above H60	0.20		
Index below H60	0.02		
1 Total Peak Flow Index	0.22	0.37	
2 Road density above H60	1.06 km/sq.km.	1.00	
3 Total road density (See note below)	1.40 km/sq.km.	0.47	**0.61**
Surface Erosion			
4 Roads on erodable soils	0.62 km/sq.km.	0.91	
5 Roads within 100 m of a stream	0.25 km/sq.km.	0.61	
6 Roads that are both of the above	0.16 km/sq.km.	0.71	
7 Active stream crossings	0.25 no./sq.km.	0.32	
8 Total road density (See note below)	1.40 km/sq.km.	0.47	**0.71**
Riparian Buffer			
9 Portion of stream logged?	0.01 km/km.	0.02	
10 Portion of fish bearing streams logged?	0.02 km/km.	0.05	**0.05**
Landslides			
11 Landslide density	0.02 no./sq.km.	0.12	
12 Roads on unstable slopes	0.01 km/sq.km.	0.03	
13 Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.12**

Notes:
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)	(2)	(3)	(4)
Watershed Name?	Bull			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	47.9	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	5.1	sq.km.	*	
ECA below H60?	0.1	sq.km.	*	
Road length above H60?	34.1	km.	*	
Road length below H60?	20.7	km.	*	
Surface Erosion				
Length of road on erodable soils?	5.6	km.	*	
Length of road within 100 m. of stream?	9.8	km.	*	
Length of road on erodable soils within 100 m. of stream?	5.6	km.	*	
Number of active stream crossings?	7		*	
Riparian Buffer				
Total stream length?	71.6	km.	*	
Length of stream logged?	2.7	km.	*	
Total length of fish bearing streams?	14.1	km.	*	
Length of fish bearing streams logged?	1.8	km.	*	
Landslides				
Number of landslides?	0		*	
Length of road on unstable slopes?	1.9	km.	*	
Length of stream with logged banks and on slopes > 60%	0.0	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	100.0			
Percent area of private land?	0.0			
Percent area with unstable slopes?	2.2			
Percent area with erodable soils?	5.1			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Bull
Map units were identified as: km. and sq.km.

		Indicator	Score	Hazard Index
Peak Flow				
	Index above H60	0.16		
	Index below H60	0.00		
1	Total Peak Flow Index	0.16	0.27	
2	Road density above H60	0.71 km/sq.km.	0.71	
3	Total road density (See note below)	1.15 km/sq.km.	0.38	**0.45**
Surface Erosion				
4	Roads on erodable soils	0.12 km/sq.km.	0.23	
5	Roads within 100 m of a stream	0.20 km/sq.km.	0.51	
6	Roads that are both of the above	0.12 km/sq.km.	0.56	
7	Active stream crossings	0.15 no./sq.km.	0.18	
8	Total road density (See note below)	1.15 km/sq.km.	0.38	**0.56**
Riparian Buffer				
9	Portion of stream logged?	0.04 km/km.	0.12	
10	Portion of fish bearing streams logged?	0.13 km/km.	0.25	**0.25**
Landslides				
11	Landslide density	0.00 no./sq.km.	0.00	
12	Roads on unstable slopes	0.04 km/sq.km.	0.13	
13	Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.07**

Notes:
The calculations of scores for #3 and #8 above are slightly different.
This spreadsheet is based on the IWAP Guidebook dated September 1995.
However, the spreadsheet is subject to change. Please contact a Forest Service regional hydrologist to ensure that you are using the latest version.

Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)	(2)	(3)	(4)
Watershed Name?	Residual Above 2			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	114.1	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	17.8	sq.km.	*	
ECA below H60?	2.9	sq.km.	*	
Road length above H60?	112.9	km.	*	
Road length below H60?	114.2	km.	*	
Surface Erosion				
Length of road on erodable soils?	70.1	km.	*	
Length of road within 100 m. of stream?	18.9	km.	*	
Length of road on erodable soils within 100 m. of stream?	14.2	km.	*	
Number of active stream crossings?	13		*	
Riparian Buffer				
Total stream length?	174.1	km.	*	
Length of stream logged?	3.4	km.	*	
Total length of fish bearing streams?	34.8	km.	*	
Length of fish bearing streams logged?	2.5	km.	*	
Landslides				
Number of landslides?	0		*	
Length of road on unstable slopes?	2.6	km.	*	
Length of stream with logged banks and on slopes > 60%	0.2	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	89.0			
Percent area of private land?	11.0			
Percent area with unstable slopes?	2.5			
Percent area with erodable soils?	22.1			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Residual Above 2
Map units were identified as: km. and sq.km.

		Indicator	(5) Score	(6) Hazard Index
Peak Flow				
	Index above H60	0.23		
	Index below H60	0.03		
1	Total Peak Flow Index	0.26	0.43	
2	Road density above H60	0.99 km/sq.km.	0.99	
3	Total road density (See note below)	1.99 km/sq.km.	0.66	**0.70**
Surface Erosion				
4	Roads on erodable soils	0.61 km/sq.km.	0.90	
5	Roads within 100 m of a stream	0.17 km/sq.km.	0.41	
6	Roads that are both of the above	0.12 km/sq.km.	0.59	
7	Active stream crossings	0.11 no./sq.km.	0.14	
8	Total road density (See note below)	1.99 km/sq.km.	0.72	**0.81**
Riparian Buffer				
9	Portion of stream logged?	0.02 km/km.	0.06	
10	Portion of fish bearing streams logged?	0.07 km/km.	0.15	**0.15**
Landslides				
11	Landslide density	0.00 no./sq.km.	0.00	
12	Roads on unstable slopes	0.02 km/sq.km.	0.09	
13	Streams >60% and banks logged	0.00 km/sq.km.	0.01	**0.04**

Notes:
The calculations of scores for #3 and #8 above are slightly different.
This spreadsheet is based on the IWAP Guidebook dated September 1995.
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)		(2)	(3)
Watershed Name?	Lost Chain			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	39.5	sq.km.		*
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	2.1	sq.km.		*
ECA below H60?	0.0	sq.km.		*
Road length above H60?	46.0	km.		*
Road length below H60?	2.6	km.		*
Surface Erosion				
Length of road on erodable soils?	0.0	km.		*
Length of road within 100 m. of stream?	3.8	km.		*
Length of road on erodable soils within 100 m. of stream?	0.0	km.		*
Number of active stream crossings?	3			*
Riparian Buffer				
Total stream length?	65.6	km.		*
Length of stream logged?	0.3	km.		*
Total length of fish bearing streams?	17.3	km.		*
Length of fish bearing streams logged?	0.3	km.		*
Landslides				
Number of landslides?	0			*
Length of road on unstable slopes?	0.3	km.		*
Length of stream with logged banks and on slopes > 60%	0.0	km.		*
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	99.1			
Percent area of private land?	0.9			
Percent area with unstable slopes?	2.0			
Percent area with erodable soils?	1.8			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Lost Chain
Map units were identified as: km. and sq.km.

		Indicator	(5) Score	(6) Hazard Index
Peak Flow				
	Index above H60	0.08		
	Index below H60	0.00		
1	Total Peak Flow Index	0.08	0.13	
2	Road density above H60	1.17 km/sq.km.	1.00	
3	Total road density (See note below)	1.23 km/sq.km.	0.41	**0.51**
Surface Erosion				
4	Roads on erodable soils	0.00 km/sq.km.	0.00	
5	Roads within 100 m of a stream	0.10 km/sq.km.	0.24	
6	Roads that are both of the above	0.00 km/sq.km.	0.00	
7	Active stream crossings	0.08 no./sq.km.	0.09	
8	Total road density (See note below)	1.23 km/sq.km.	0.41	**0.33**
Riparian Buffer				
9	Portion of stream logged?	0.01 km/km.	0.02	
10	Portion of fish bearing streams logged?	0.02 km/km.	0.04	**0.04**
Landslides				
11	Landslide density	0.00 no./sq.km.	0.00	
12	Roads on unstable slopes	0.01 km/sq.km.	0.03	
13	Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.01**

Notes:
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)	(2)	(3)	(4)
Watershed Name?	Residual Above Thirsk			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	87.0	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	6.6	sq.km.	*	
ECA below H60?	11.1	sq.km.	*	
Road length above H60?	76.3	km.	*	
Road length below H60?	54.4	km.	*	
Surface Erosion				
Length of road on erodable soils?	56.0	km.	*	
Length of road within 100 m. of stream?	10.3	km.	*	
Length of road on erodable soils within 100 m. of stream?	5.9	km.	*	
Number of active stream crossings?	13		*	
Riparian Buffer				
Total stream length?	113.0	km.	*	
Length of stream logged?	0.7	km.	*	
Total length of fish bearing streams?	30.5	km.	*	
Length of fish bearing streams logged?	0.7	km.	*	
Landslides				
Number of landslides?	0		*	
Length of road on unstable slopes?	0.5	km.	*	
Length of stream with logged banks and on slopes > 60%	0.1	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	92.0			
Percent area of private land?	8.0			
Percent area with unstable slopes?	1.3			
Percent area with erodable soils?	39.9			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
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(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Residual Above Thirsk
Map units were identified as: km. and sq.km.

	Indicator	(5) Score	(6) Hazard Index
Peak Flow			
Index above H60	0.11		
Index below H60	0.13		
1 Total Peak Flow Index	0.24	0.40	
2 Road density above H60	0.88 km/sq.km.	0.88	
3 Total road density (See note below)	1.50 km/sq.km.	0.50	**0.59**
Surface Erosion			
4 Roads on erodable soils	0.64 km/sq.km.	0.94	
5 Roads within 100 m of a stream	0.12 km/sq.km.	0.30	
6 Roads that are both of the above	0.07 km/sq.km.	0.34	
7 Active stream crossings	0.15 no./sq.km.	0.19	
8 Total road density (See note below)	1.50 km/sq.km.	0.50	**0.72**
Riparian Buffer			
9 Portion of stream logged?	0.01 km/km.	0.02	
10 Portion of fish bearing streams logged?	0.02 km/km.	0.05	**0.05**
Landslides			
11 Landslide density	0.00 no./sq.km.	0.00	
12 Roads on unstable slopes	0.01 km/sq.km.	0.02	
13 Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.01**

Notes:
The calculations of scores for #3 and #8 above are slightly different.
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)		(2)	(3)	(4)
Watershed Name?	North Trout				
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1				
Watershed area?	58.8	sq.km.		*	
Peak Flow and Surface Erosion					
Elevation of H60?	1317	m.			
ECA above H60?	11.9	sq.km.		*	
ECA below H60?	1.0	sq.km.		*	
Road length above H60?	100.4	km.		*	
Road length below H60?	6.9	km.		*	
Surface Erosion					
Length of road on erodable soils?	23.6	km.		*	
Length of road within 100 m. of stream?	17.3	km.		*	
Length of road on erodable soils within 100 m. of stream?	7.3	km.		*	
Number of active stream crossings?	21			*	
Riparian Buffer					
Total stream length?	81.2	km.		*	
Length of stream logged?	3.6	km.		*	
Total length of fish bearing streams?	35.8	km.		*	
Length of fish bearing streams logged?	3.4	km.		*	
Landslides					
Number of landslides?	3			*	
Length of road on unstable slopes?	0.1	km.		*	
Length of stream with logged banks and on slopes > 60%	0.0	km.		*	
Other Land Use and Watershed Characteristics					
Is there range use next to streams?	Yes				
Is there mining close to streams?	No				
Is there ATV use close to streams?	Yes				
Hydrologic zone?					
Percent area of crown land?	100.0				
Percent area of private land?	0.0				
Percent area with unstable slopes?	0.3				
Percent area with erodable soils?	21.0				
Dominant bedrock geology?					
Is there a fisheries (DFO or MoE) thermal concern?					

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

North Trout
Map units were identified as: km. and sq.km.

	Indicator	(5) Score	(6) Hazard Index
Peak Flow			
Index above H60	0.30		
Index below H60	0.02		
1 Total Peak Flow Index	0.32	0.54	
2 Road density above H60	1.71 km/sq.km.	1.00	
3 Total road density (See note below)	1.83 km/sq.km.	0.61	0.71
Surface Erosion			
4 Roads on erodable soils	0.40 km/sq.km.	0.67	
5 Roads within 100 m of a stream	0.29 km/sq.km.	0.69	
6 Roads that are both of the above	0.12 km/sq.km.	0.59	
7 Active stream crossings	0.36 no./sq.km.	0.45	
8 Total road density (See note below)	1.83 km/sq.km.	0.65	0.67
Riparian Buffer			
9 Portion of stream logged?	0.04 km/km.	0.15	
10 Portion of fish bearing streams logged?	0.10 km/km.	0.19	0.19
Landslides			
11 Landslide density	0.05 no./sq.km.	0.26	
12 Roads on unstable slopes	0.00 km/sq.km.	0.00	
13 Streams >60% and banks logged	0.00 km/sq.km.	0.00	0.26

Notes:
The calculations of scores for #3 and #8 above are slightly different.
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)	(2)	(3)	(4)
Watershed Name?	Upper Trout			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	90.3	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	16.8	sq.km.	*	
ECA below H60?	2.3	sq.km.	*	
Road length above H60?	138.6	km.	*	
Road length below H60?	47.5	km.	*	
Surface Erosion				
Length of road on erodable soils?	92.5	km.	*	
Length of road within 100 m. of stream?	20.4	km.	*	
Length of road on erodable soils within 100 m. of stream?	4.8	km.	*	
Number of active stream crossings?	25		*	
Riparian Buffer				
Total stream length?	117.5	km.	*	
Length of stream logged?	2.5	km.	*	
Total length of fish bearing streams?	33.1	km.	*	
Length of fish bearing streams logged?	2.0	km.	*	
Landslides				
Number of landslides?	0		*	
Length of road on unstable slopes?	1.0	km.	*	
Length of stream with logged banks and on slopes > 60%	0.0	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?				
Percent area of crown land?	99.8			
Percent area of private land?	0.2			
Percent area with unstable slopes?	0.6			
Percent area with erodable soils?	54.5			
Dominant bedrock geology?				
Is there a fisheries (DFO or MoE) thermal concern?				

Notes:
(2) Enter data in units shown in this column.
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(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected

Calculation Sheet

Upper Trout
Map units were identified as: km. and sq.km.

		Indicator	(5) Score	(6) Hazard Index
Peak Flow				
	Index above H60	0.28		
	Index below H60	0.03		
1	Total Peak Flow Index	0.31	0.51	
2	Road density above H60	1.53 km/sq.km.	1.00	
3	Total road density (See note below)	2.06 km/sq.km.	0.69	**0.73**
Surface Erosion				
4	Roads on erodable soils	1.02 km/sq.km.	1.00	
5	Roads within 100 m of a stream	0.23 km/sq.km.	0.55	
6	Roads that are both of the above	0.05 km/sq.km.	0.27	
7	Active stream crossings	0.28 no./sq.km.	0.35	
8	Total road density (See note below)	2.06 km/sq.km.	0.75	**0.88**
Riparian Buffer				
9	Portion of stream logged?	0.02 km/km.	0.07	
10	Portion of fish bearing streams logged?	0.06 km/km.	0.12	**0.12**
Landslides				
11	Landslide density	0.00 no./sq.km.	0.00	
12	Roads on unstable slopes	0.01 km/sq.km.	0.04	
13	Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.02**

Notes:
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Data Entry Sheet - IWAP Version 1.03 - November 1995

Enter watershed data in column 1.
Read scores and hazard indices in columns 5 and 6 on next page.

	(1)		(2)	(3)
Watershed Name?	Total Watershed			
Map units are in: (1=km. and sq.km.; 2=m. and ha.)	1			
Watershed area?	744.3	sq.km.	*	
Peak Flow and Surface Erosion				
Elevation of H60?	1317	m.		
ECA above H60?	83.3	sq.km.	*	
ECA below H60?	47.4	sq.km.	*	
Road length above H60?	805.9	km.	*	
Road length below H60?	530.0	km.	*	
Surface Erosion				
Length of road on erodable soils?	498.2	km.	*	
Length of road within 100 m. of stream?	128.5	km.	*	
Length of road on erodable soils within 100 m. of stream?	65.2	km.	*	
Number of active stream crossings?	137		*	
Riparian Buffer				
Total stream length?	1116.0	km.	*	
Length of stream logged?	20.4	km.	*	
Total length of fish bearing streams?	254.7	km.	*	
Length of fish bearing streams logged?	16.7	km.	*	
Landslides				
Number of landslides?	4		*	
Length of road on unstable slopes?	14.9	km.	*	
Length of stream with logged banks and on slopes > 60%	0.4	km.	*	
Other Land Use and Watershed Characteristics				
Is there range use next to streams?	Yes			
Is there mining close to streams?	No			
Is there ATV use close to streams?	Yes			
Hydrologic zone?	0.0			
Percent area of crown land?	957.9			
Percent area of private land?	142.1			
Percent area with unstable slopes?	2.3			
Percent area with erodable soils?	31.2			
Dominant bedrock geology?	0.0			
Is there a fisheries (DFO or MoE) thermal concern?	0.0			

Notes:
(2) Enter data in units shown in this column.
(3) An asterisk in this column indicates essential data for calculations.
(4) "err" message in this column indicates an inconsistency in the data.

All cells except B6..B44 are protected.

Calculation Sheet

Total Watershed
Map units were identified as: km. and sq.km.

		Indicator	(5) Score	(6) Hazard Index
Peak Flow				
	Index above H60	0.17		
	Index below H60	0.06		
1	Total Peak Flow Index	0.23	0.39	
2	Road density above H60	1.08 km/sq.km.	1.00	
3	Total road density (See note below)	1.79 km/sq.km.	0.60	**0.66**
Surface Erosion				
4	Roads on erodable soils	0.67 km/sq.km.	0.97	
5	Roads within 100 m of a stream	0.17 km/sq.km.	0.43	
6	Roads that are both of the above	0.09 km/sq.km.	0.44	
7	Active stream crossings	0.18 no./sq.km.	0.23	
8	Total road density (See note below)	1.79 km/sq.km.	0.63	**0.80**
Riparian Buffer				
9	Portion of stream logged?	0.02 km/km.	0.06	
10	Portion of fish bearing streams logged?	0.07 km/km.	0.13	**0.13**
Landslides				
11	Landslide density	0.01 no./sq.km.	0.03	
12	Roads on unstable slopes	0.02 km/sq.km.	0.07	
13	Streams >60% and banks logged	0.00 km/sq.km.	0.00	**0.03**

Notes:
The calculations of scores for #3 and #8 above are slightly different.
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APPENDIX C

History of Past Forest Development
and ECA Calculation Spreadsheets

Watershed Assessment: ECA Determination

File: 549-001
Watershed: Trout
Sub Drainage:Residual

Regen Growth/year (m):	0.3
H60 Elev (m):	1300.0
Area (ha):	4613.0

Below Intake

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		2000 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.052	176			28.8	28.8		95	6.5	6.8	14.4		7.2		7.2		7.2		7.2	
82E.052	178		69	49.2	49.2		95		0.3	49.2		49.2		49.2		49.2		49.2	
82E.052	180			2.4	2.4		95		0.3	2.4		2.4		2.4		2.4		2.4	
82E.052	184			13.3	13.3		95	10.8	11.1	1.3		1.3		1.3		1.3		1.3	
82E.052	186			2.8	2.8		95		0.3	2.8		2.8		2.8		2.8		2.8	
82E.052	17		BURN	36.3	36.3		95	7.2	7.5	9.1		9.1		9.1		9.1		9.1	
82E.052			URBAN	2000	2000					2000.0		2000.0		2000.0		2000.0		2000.0	
82E.052	182		CULT	50.2	50.2		95			50.2		50.2		50.2		50.2		50.2	

Totals

Area (ha)		
Total	<H60	>H60
2183.0	2183.0	

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		2000 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	2129.4		2122.2		2122.2		2122.2		2122.2	
	2129.4		2122.2		2122.2		2122.2		2122.2	
ECA (%):	46.2		46.0		46.0		46.0		46.0	
ECA (%) >H60:										

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Residual 1

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	10445.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.051	184		91	3	3.0		95		0.3	3.0		3.0		3.0		3.0		3.0	
82E.051	186		77	17.8	17.8		95		0.3	17.8		17.8		17.8		17.8		17.8	
82E.051	187		91	4.8	4.8		95		0.3	4.8		4.8		4.8		4.8		4.8	
82E.051	192	263	77	9.9	9.9		95	2.0	2.3	9.9		9.9		9.9		7.4		7.4	
82E.051	245	249	70	14		14	95	7.0	7.3		3.5		3.5		3.5		3.5		3.5
82E.051	254	278	88	39.7		39.7	95		0.3		39.7		39.7		39.7		39.7		39.7
82E.051	300	276	88	27		27	95		0.3		27.0		27.0		27.0		27.0		27.0
82E.051	308	234		2.6		2.6	95	2.0	2.3		2.6		2.6		2.6		2.0		2.0
82E.051	763			6.3		6.3	95	7.4	7.7		1.6		1.6		1.6		1.6		1.6
82E.051	2033	233	81	21.8		21.8	95	2.0	2.3		21.8		21.8		21.8		16.4		16.4
82E.051	2063	250		9.1		9.1	95	10.1	10.4		0.9		0.9		0.9		0.9		0.9
82E.051	2064	250		2.8		2.8	95	3.3	3.6		2.1		2.1		2.1		2.1		2.1
82E.051	2066	252	83	7.8	7.8		95		0.3	7.8		7.8		7.8		7.8		7.8	
82E.051	2075	263	77	4.3	4.3		95	2.0	2.3	4.3		4.3		4.3		3.2		3.2	
82E.051	2118	226	77	17.9		17.9	95	0.8	1.1		17.9		17.9		17.9		17.9		17.9
82E.051	2121	250		3.2		3.2	95	1.1	1.4		3.2		3.2		3.2		3.2		3.2
82E.051	2122	251		9.3		9.3	95	2.6	2.9		9.3		7.0		7.0		7.0		7.0
82E.051	2209	252	83	7.1	3.6	3.55	94	0.3	0.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
82E.061	78	12	77	2.6		2.6	95	6.3	6.6		1.3		1.3		0.7		0.7		0.7
82E.061	136	20	85	6.4		6.4	95	1.3	1.6		6.4		6.4		6.4		6.4		6.4
82E.061	222	54	86	5.1		5.1	95	0.6	0.9		5.1		5.1		5.1		5.1		5.1
82E.061	227	21	78	23.2		23.2	95	3.0	3.3		17.4		17.4		17.4		17.4		17.4
82E.061	237	52	86	10.0		10.0	95	0.8	1.1		10.0		10.0		10.0		10.0		10.0
82E.061	239	22	78	7.6		7.6	95	3.0	3.3		5.7		5.7		5.7		5.7		5.7
82E.061	251	23	77	65.0		65.0	95	3.7	4.0		48.8		48.8		48.8		48.8		48.8
82E.061	261	72	77	20.5		20.5	95	6.3	6.6		10.3		10.3		5.1		5.1		5.1
82E.061	263	12	77	30.9		30.9	95	3.3	3.6		23.2		23.2		23.2		23.2		23.2
82E.061	279			7.7		7.7	95		0.3		7.7		7.7		7.7		7.7		7.7
82E.061	399			3.8	3.8		95		0.3	3.8		3.8		3.8		3.8		3.8	
82E.061	430	11	77	5.5		5.5	95	2.3	2.6		5.5		5.5		4.1		4.1		4.1
82E.061	570	8	79	128.8		128.8	95	2.6	2.9		128.8		96.6		96.6		96.6		96.6
82E.061	666			16.6	16.6		95		0.3	16.6		16.6		16.6		16.6		16.6	
82E.061	753	BURN		20.2	20.2		95		0.3	20.2		20.2		20.2		20.2		20.2	
82E.061	757						95		0.3										
82E.061	762	9	80	6.7	6.7		95		0.3	6.7		6.7		6.7		6.7		6.7	
82E.061	765	20	85	9.2		9.2	95	0.8	1.1		9.2		9.2		9.2		9.2		9.2
82E.061	787	76	89	6.8		6.8	95		0.3		6.8		6.8		6.8		6.8		6.8
82E.061	791	18	78	2.2		2.2	95	3.0	3.3		1.7		1.7		1.7		1.7		1.7

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Residual 1

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	10445.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.061	794	58	87	3.0		3.0	95	0.8	1.1		3.0		3.0		3.0		3.0		3.0
82E.061	796	56	87	1.2		1.2	95	1.0	1.3		1.2		1.2		1.2		1.2		1.2
82E.061	797	57	87	1.8		1.8	95	0.8	1.1		1.8		1.8		1.8		1.8		1.8
82E.061	799	49	86	8.3		8.3	95	1.4	1.7		8.3		8.3		8.3		8.3		8.3
82E.061	802	51	86	18.3		18.3	95	0.6	0.9		18.3		18.3		18.3		18.3		18.3
82E.061	810	72	77	5.4		5.4	95	3.3	3.6		4.1		4.1		4.1		4.1		4.1
82E.061	815	22	78	4.3		4.3	95	3.0	3.3		3.2		3.2		3.2		3.2		3.2
82E.061	816	22	78	2.2		2.2	95	3.0	3.3		1.7		1.7		1.7		1.7		1.7
82E.061	817	22	78	1.6		1.6	95	1.1	1.4		1.6		1.6		1.6		1.6		1.6
82E.061	828	51	86	17.7		17.7	95	0.9	1.2		17.7		17.7		17.7		17.7		17.7
82E.061	829	51	86	11.6		11.6	95	0.9	1.2		11.6		11.6		11.6		11.6		11.6
82E.061	830	51	86	41.3		41.3	95	0.6	0.9		41.3		41.3		41.3		41.3		41.3
82E.061	powerline			47.8	47.8		95		0.3	47.8		47.8		47.8		47.8		47.8	

Totals

Area (ha)		
Total	<H60	>H60
751.7	146.3	605.4

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	146.3	534.6	146.3	500.0	146.3	492.9	142.7	486.8	142.7	486.8
	680.8		646.3		639.1		629.5		629.5	
ECA (%):	6.5		6.2		6.1		6.0		6.0	
ECA (%) >H60:	5.1		4.8		4.7		4.7		4.7	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Darke

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	7664.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha) Total	<H60	>H60	Regeneration Measured Year	Ht (m)	96 Ht (m)	96 ECA Adjusted (ha) <H60	>H60	97 ECA Adjusted (ha) <H60	>H60	98 ECA Adjusted (ha) <H60	>H60	99 ECA Adjusted (ha) <H60	>H60	00 ECA Adjusted (ha) <H60	>H60	
82E.061	69	80	91	21		21	95		0.3		21.0		21.0		21.0		21.0		21.0	1.000
82E.061	94	39	78	30.4		30.4	95	3.3	3.6		22.8		22.8		22.8		22.8		22.8	1.000
82E.061	99			20.48		20.48	95		0.3		20.5		20.5		20.5		20.5		20.5	1.000
82E.061	102	7	90	27.4		27.4	95		0.3		27.4		27.4		27.4		27.4		27.4	1.000
82E.061	114	36	78	17.2		17.2	95	3.3	3.6		12.9		12.9		12.9		12.9		12.9	1.000
82E.061	117	70	87	19.7		19.7	95	0.6	0.9		19.7		19.7		19.7		19.7		19.7	1.000
82E.061	120	40	78	40.6		40.6	95	3.7	4.0		30.5		30.5		30.5		30.5		30.5	1.000
82E.061	142	43	78	17.2	8.6	8.6	95	3.3	3.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	1.000
82E.061	143			9.6		9.6	95		0.3		9.6		9.6		9.6		9.6		9.6	1.000
82E.061	147	42	78	29.7	29.7		95	2.5	2.8	29.7		22.3		22.3		22.3		22.3		1.000
82E.061	149	42	78	6.4	6.4		95	2.5	2.8	6.4		4.8		4.8		4.8		4.8		1.000
82E.061	220	21	78	10.6		10.6	95	3.3	3.6		8.0		8.0		8.0		8.0		8.0	1.000
82E.061	224	81	82	12.9		12.9	95		0.3		12.9		12.9		12.9		12.9		12.9	1.000
82E.061	779	47	85	19.3		19.3	95	1.3	1.6		19.3		19.3		19.3		19.3		19.3	1.000
82E.061	780	48	85	8.8		8.8	95	1.3	1.6		8.8		8.8		8.8		8.8		8.8	1.000
82E.061	781	42	78	2.8		2.8	95	3.7	4.0		2.1		2.1		2.1		2.1		2.1	1.000
82E.061	790	42	78	7.4		7.4	95	3.7	4.0		5.6		5.6		5.6		5.6		5.6	1.000
82E.061	804	22	78	10.2		10.2	95	3.3	3.6		7.7		7.7		7.7		7.7		7.7	1.000
82E.061	807	70	87	14.6		14.6	95	0.8	1.1		14.6		14.6		14.6		14.6		14.6	1.000
82E.061	836			5.76		5.76	95		0.3		5.8		5.8		5.8		5.8		5.8	1.000
82E.062	53			12.6	12.6		95		0.3	12.6		12.6		12.6		12.6		12.6		1.000
82E.062	99			50.7	50.7		95		0.3	50.7		50.7		50.7		50.7		50.7		1.000
82E.062	101			25.4	25.4		95		0.3	25.4		25.4		25.4		25.4		25.4		1.000
82E.062	106	1	79	39.9	39.9		95	9.1	9.4	4.0		4.0		4.0		4.0		4.0		1.000
82E.062	126		70	12.4	12.4		95	4.7	5.0	9.3		6.2		6.2		6.2		6.2		1.000
82E.062	204		CULT	14.2	14.2		95		0.3	14.2		14.2		14.2		14.2		14.2		1.000
82E.062	206		URBAN	6.2	6.2		95		0.3	6.2		6.2		6.2		6.2		6.2		1.000
82E.071	609	48		76.6		76.6	95	3.5	3.8		57.5		57.5		57.5		57.5		57.5	1.000
82E.071	614			1.2		1.2	95	4.1	4.4		0.9		0.9		0.9		0.6		0.6	1.000
82E.071	642	17	80	9.2	9.2		95	3.0	3.3	6.9		6.9		6.9		6.9		6.9		1.000
82E.071	644	7	80	40.4	40.4		95	1.6	1.9	40.4		40.4		40.4		40.4		40.4		1.000
82E.071	658	18	71	54.2	54.2		95	3.4	3.7	40.7		40.7		40.7		40.7		40.7		1.000
82E.071	725	60	92	17.9		17.9	95		0.3		17.9		17.9		17.9		17.9		17.9	1.000
82E.071	794	74	89	1.8		1.8	95		0.3		1.8		1.8		1.8		1.8		1.8	1.000
82E.071	810	64	93	4.6		4.6	95		0.3		4.6		4.6		4.6		4.6		4.6	1.000
82E.071	824	59	90	28.6		28.6	95		0.3		28.6		28.6		28.6		28.6		28.6	1.000
82E.071	868	59	91	20.8		20.8	95		0.3		20.8		20.8		20.8		20.8		20.8	1.000
82E.071	879	59	91	5.8		5.8	95		0.3		5.8		5.8		5.8		5.8		5.8	1.000
82E.071	880	60	92	12.6		12.6	95		0.3		12.6		12.6		12.6		12.6		12.6	1.000
82E.071	881	60	93	1.3		1.3	95		0.3		1.3		1.3		1.3		1.3		1.3	1.000
82E.071	900	65	93	7.7		7.7	95		0.3		7.7		7.7		7.7		7.7		7.7	1.000

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Darke

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	7664.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60

Totals

Area (ha)		
Total	<H60	>H60
776.1	309.9	466.2

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	252.9	414.8	240.8	414.8	240.8	414.8	240.8	414.5	240.8	414.5
	667.7		655.6		655.6		655.3		655.3	
ECA (%):	8.7		8.6		8.6		8.6		8.6	
ECA (%) >H60:	5.4		5.4		5.4		5.4		5.4	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Isintok

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	4346.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration Measured		96	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.051	125	269	76	17.2	17.2		95	2.0	2.3	17.2		17.2		17.2		12.9		12.9	
82E.051	137	264	77	3.9	3.9		95	1.3	1.6	3.9		3.9		3.9		3.9		3.9	
82E.051	140	265	78	19.1	9.6	9.6	95	1.2	1.5	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
82E.051	141	256	76	22.3	22.3		95	3.0	3.3	16.7		16.7		16.7		16.7		16.7	
82E.051	150	253	78	8.0		8.0	95	7.0	7.3		2.0		2.0		2.0		2.0		2.0
82E.051	288		60	2.7		2.7	95	4.1	4.4		2.0		2.0		2.0		1.4		1.4
82E.051	350	241	77	14.8		14.8	95	3.0	3.3		11.1		11.1		11.1		11.1		11.1
82E.051	352	293	90	9.3		9.3	95		0.3		9.3		9.3		9.3		9.3		9.3
82E.051	355		91	0.6		0.6	95		0.3		0.6		0.6		0.6		0.6		0.6
82E.051	362	257	77	9.1		9.1	95	0.8	1.1		9.1		9.1		9.1		9.1		9.1
82E.051	363	298	91	2.9		2.9	95		0.3		2.9		2.9		2.9		2.9		2.9
82E.051	365	275	87	4.6		4.6	95		0.3		4.6		4.6		4.6		4.6		4.6
82E.051	370	240	76	0.2		0.2	95	3.0	3.3		0.2		0.2		0.2		0.2		0.2
82E.051	371	243	82	4.6		4.6	95	1.7	2.0		4.6		4.6		4.6		4.6		4.6
82E.051	372	240	76	27.0		27.0	95	3.0	3.3		20.3		20.3		20.3		20.3		20.3
82E.051	401	241	77	3.6		3.6	95	3.0	3.3		2.7		2.7		2.7		2.7		2.7
82E.051	402	242	76	24.4		24.4	95	3.3	3.6		18.3		18.3		18.3		18.3		18.3
82E.051	476	239	77	12.0		12.0	95	3.0	3.3		9.0		9.0		9.0		9.0		9.0
82E.051	477	239	77	12.1		12.1	95	3.0	3.3		9.1		9.1		9.1		9.1		9.1
82E.051	2018	220	84	15.0		15.0	95	1.3	1.6		15.0		15.0		15.0		15.0		15.0
82E.051	2019	221	84	19.0		19.0	95	0.9	1.2		19.0		19.0		19.0		19.0		19.0
82E.051	2053	235	81	8.0		8.0	95	1.4	1.7		8.0		8.0		8.0		8.0		8.0
82E.051	2058	244	81	9.1		9.1	95	1.7	2.0		9.1		9.1		9.1		9.1		9.1
82E.051	2059	245	81	34.4		34.4	95	0.8	1.1		34.4		34.4		34.4		34.4		34.4
82E.051	2067	254		12.8		12.8	95	2.0	2.3		12.8		12.8		12.8		9.6		9.6
82E.051	2068	255	79	4.9	4.9		95	2.0	2.3	4.9		4.9		4.9		3.7		3.7	
82E.051	2070	258	80	11.4		11.4	95	1.1	1.4		11.4		11.4		11.4		11.4		11.4
82E.051	2071	260		3.8		3.8	95	0.9	1.2		3.8		3.8		3.8		3.8		3.8
82E.051	2073	261		4.1	2.1	2.1	95	1.7	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
82E.051	2077	266	79	2.4	2.4		95	1.7	2.0	2.4		2.4		2.4		2.4		2.4	
82E.051	2094	269	76	32.3		32.3	95	2.0	2.3		32.3		32.3		32.3		24.2		24.2
82E.051	2095	269	76	1.5	1.5		95	2.0	2.3	1.5		1.5		1.5		1.1		1.1	
82E.051	2097	269	76	8.0		8.0	95	2.0	2.3		8.0		8.0		8.0		6.0		6.0
82E.051	2098	269	76	1.0	1.0		95	4.0	4.3	0.8		0.8		0.8		0.5		0.5	
82E.051	2099	256	76	9.0		9.0	95	3.7	4.0		6.8		6.8		6.8		6.8		6.8
82E.051	2100	269	76	3.5	3.5		95	4.0	4.3	2.6		2.6		2.6		1.8		1.8	
82E.051	2104	259	85	10.7		10.7	95	0.8	1.1		10.7		10.7		10.7		10.7		10.7
82E.051	2105	259	85	43.9		43.9	95	1.1	1.4		43.9		43.9		43.9		43.9		43.9

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Isintok

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	4346.0

				Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96											
Mapsheet	Polygon	Opening	Year Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.051	2106	259	85	9.2		9.2	95	0.9	1.2		9.2		9.2		9.2		9.2		9.2
82E.051	2108	259	85	5.1		5.1	95	0.9	1.2		5.1		5.1		5.1		5.1		5.1
82E.051	2109	269	76	20.1		20.1	95	4.0	4.3		15.1		15.1		15.1		10.1		10.1
82E.051	2117	220	84	24.3		24.3	95	0.8	1.1		24.3		24.3		24.3		24.3		24.3
82E.051	2132	281	89	11.0		11.0	95		0.3		11.0		11.0		11.0		11.0		11.0
82E.051	2133		91	0.2		0.2	95		0.3		0.2		0.2		0.2		0.2		0.2
82E.051	2136		91	0.7		0.7	95		0.3		0.7		0.7		0.7		0.7		0.7
82E.051	2137		91	0.6		0.6	95		0.3		0.6		0.6		0.6		0.6		0.6
82E.051	2138		91	0.2		0.2	95		0.3		0.2		0.2		0.2		0.2		0.2
82E.051	2139		91	0.6		0.6	95		0.3		0.6		0.6		0.6		0.6		0.6
82E.051	2146		91	0.7		0.7	95		0.3		0.7		0.7		0.7		0.7		0.7
82E.051	2147	295	91	1.2		1.2	95		0.3		1.2		1.2		1.2		1.2		1.2
82E.051	2148	295	91	0.4		0.4	95		0.3		0.4		0.4		0.4		0.4		0.4
82E.051	2149	261		1.4		1.4	95	2.0	2.3		1.4		1.4		1.4		1.1		1.1
82E.051	2150	274	89	30.7		30.7	95		0.3		30.7		30.7		30.7		30.7		30.7
82E.051	2179	220	84	4.3		4.3	87	0.3	2.6		4.3		4.3		3.2		3.2		3.2
82E.051	2180	296	92	10.4		10.4	95	0.3	0.6		10.4		10.4		10.4		10.4		10.4
82E.051	2205	220	84	5.2		5.2	87	0.3	2.6		5.2		5.2		3.9		3.9		3.9
82E.061	677	264	77	0.2	0.2		95			0.2		0.2		0.2		0.2		0.2	
82E.061	680	5	77	2.8	2.8		95	5.1	5.4	1.4		1.4		1.4		1.4		1.4	
82E.061	powerline			12.8	12.8		95			12.8		12.8		12.8		12.8		12.8	
92H.060	396		84	27.3		27.3	95	0.9	1.2		27.3		27.3		27.3		27.3		27.3
92H.060	410		91	20		20	95		0.3		20.0		20.0		20.0		20.0		20.0
92H.060	414		91	38.6		38.6	95		0.3		38.6		38.6		38.6		38.6		38.6
92H.060	769		-	52.8		52.8	95		0.3		52.8		52.8		52.8		52.8		52.8

Totals

Area (ha)		
Total	<H60	>H60
714.0	84.1	629.9

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	76.0	592.4	76.0	592.4	76.0	590.1	69.0	570.7	69.0	570.7
	668.5		668.5		666.1		639.7		639.7	
ECA (%):	15.4		15.4		15.3		14.7		14.7	
ECA (%) >H60:	13.6		13.6		13.6		13.1		13.1	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Bull

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	4786.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.061	610	49	86	19.7		19.7	95	0.8	1.1		19.7		19.7		19.7		19.7		19.7
82E.061	628	7	78	8.1		8.1	95		0.3		8.1		8.1		8.1		8.1		8.1
82E.061	648	4	83	8.8	8.8		95	3.0	3.3	6.6		6.6		6.6		6.6		6.6	
82E.061	655	4	83	1.8	1.8		95	5.6	5.9	0.9		0.9		0.9		0.9		0.9	
82E.061	755	2	80	5.7		5.7	95	2.0	2.3		5.7		5.7		5.7		4.3		4.3
82E.061	756	3	78	5.3		5.3	95	3.3	3.6		4.0		4.0		4.0		4.0		4.0
82E.061	826	49	86	7.6		7.6	95	1.3	1.6		7.6		7.6		7.6		7.6		7.6
82E.061	827	49	86	13.4		13.4	95	1.4	1.7		13.4		13.4		13.4		13.4		13.4
82E.051	2060	247	82	18		18	95	1.3	1.6		18.0		18.0		18.0		18.0		18.0
82E.051	2062	248	83	18.4		18.4	95	1.7	2.0		18.4		18.4		18.4		18.4		18.4
82E.051	2074	204	82	5		5	95		0.3		5.0		5.0		5.0		5.0		5.0
82E.051	2078	268	82	20.7		20.7	95	1.7	2.0		20.7		20.7		20.7		20.7		20.7
82E.051	2079	203	82	4.6		4.6	95		0.3		4.6		4.6		4.6		4.6		4.6
82E.051	2083	220	90	23.7		23.7	95		0.3		23.7		23.7		23.7		23.7		23.7
82E.051	2123	218	90	3.3		3.3	95		0.3		3.3		3.3		3.3		3.3		3.3
82E.051	2124	288	90	3.7		3.7	95		0.3		3.7		3.7		3.7		3.7		3.7
82E.051	2126		90	2.1		2.1	95		0.3		2.1		2.1		2.1		2.1		2.1
82E.051	2140	280	88	1.3		1.3	95		0.3		1.3		1.3		1.3		1.3		1.3
82E.051	2142	290	90	2.3		2.3	95		0.3		2.3		2.3		2.3		2.3		2.3
82E.051	2202	246	78	1.6		1.6	81	0.3	4.1		1.2		1.2		1.2		1.2		0.8
92H.060	64	201	82	11.5		11.5	95	1.7	2.0		11.5		11.5		11.5		11.5		11.5
92H.060	66	268	82	9.9		9.9	95	1.7	2.0		9.9		9.9		9.9		9.9		9.9
92H.060	70		91	48.7		48.7	95		0.3		48.7		48.7		48.7		48.7		48.7
92H.060	171	200	82	45.3		45.3	95	1.7	2.0		45.3		45.3		45.3		45.3		45.3
92H.060	172	200	82	26.7		26.7	95	1.6	1.9		26.7		26.7		26.7		26.7		26.7
92H.060	173	203	82	19.6		19.6	95	1.4	1.7		19.6		19.6		19.6		19.6		19.6
92H.060	181	204	82	58		58	95	1.0	1.3		58.0		58.0		58.0		58.0		58.0
92H.060	182		91	45.2		45.2	95		0.3		45.2		45.2		45.2		45.2		45.2
92H.060	183	205	82	42.9		42.9	95	1.0	1.3		42.9		42.9		42.9		42.9		42.9
92H.060	240	207	83	27.4		27.4	95	0.7	1.0		27.4		27.4		27.4		27.4		27.4
92H.060	403		91	8.5		8.5	94	0.3	0.8		8.5		8.5		8.5		8.5		8.5

Totals

Area (ha)		
Total	<H60	>H60
518.8	10.6	508.2

96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
7.5	506.5	7.5	506.5	7.5	506.5	7.5	505.1	7.5	504.7

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Bull

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	4786.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
										514.0		514.0		514.0		512.6		512.2	
									ECA (%):	10.7		10.7		10.7		10.7		10.7	
									ECA (%) >H60:		10.6		10.6		10.6		10.6		10.5

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Residual 2

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	11411.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.061	19	27	76	8.3	8.3		95	2.6	2.9	8.3		6.2		6.2		6.2		6.2	
82E.061	34			1.6	1.6		95	8.4	8.7	0.4		0.4		0.2		0.2		0.2	
82E.061	46	26	77	9.8	9.8		95	2.6	2.9	9.8		7.4		7.4		7.4		7.4	
82E.061	57	6	78	1.5		1.5	95	3.0	3.3		1.1		1.1		1.1		1.1		1.1
82E.061	60	29	78	20.1		20.1	95	3.3	3.6		15.1		15.1		15.1		15.1		15.1
82E.061	61	30	78	9.1		9.1	95	2.6	2.9		9.1		6.8		6.8		6.8		6.8
82E.061	65	30	78	28.5		28.5	95	2.6	2.9		28.5		21.4		21.4		21.4		21.4
82E.061	68	31	78	13.6		13.6	95	2.3	2.6		13.6		13.6		10.2		10.2		10.2
82E.061	70	32	78	7.0		7.0	95	2.3	2.6		7.0		7.0		5.3		5.3		5.3
82E.061	73	16	77	25.1		25.1	95	3.0	3.3		18.8		18.8		18.8		18.8		18.8
82E.061	77	71	87	5.0		5.0	95	0.8	1.1		5.0		5.0		5.0		5.0		5.0
82E.061	79	69	90	15.7		15.7	95		0.3		15.7		15.7		15.7		15.7		15.7
82E.061	81	75	90	5.9		5.9	95		0.3		5.9		5.9		5.9		5.9		5.9
82E.061	86	68	87	14.2		14.2	95		0.3		14.2		14.2		14.2		14.2		14.2
82E.061	87	29	78	1.1		1.1	95	3.3	3.6		0.8		0.8		0.8		0.8		0.8
82E.061	88	33	78	49.3		49.3	95	2.6	2.9		49.3		37.0		37.0		37.0		37.0
82E.061	104	34	78	30.3		30.3	95	2.6	2.9		30.3		22.7		22.7		22.7		22.7
82E.061	105	34	78	6.0		6.0	95	3.0	3.3		4.5		4.5		4.5		4.5		4.5
82E.061	106			4.5		4.5	95		0.3		4.5		4.5		4.5		4.5		4.5
82E.061	110	37	78	15.3		15.3	95	2.6	2.9		15.3		11.5		11.5		11.5		11.5
82E.061	138	20	85	2.4		2.4	95		0.3		2.4		2.4		2.4		2.4		2.4
82E.061	142	43	78	5.7		5.7	95	3.3	3.6		4.3		4.3		4.3		4.3		4.3
82E.061	218	22	78	7.7		7.7	95	3.0	3.3		5.8		5.8		5.8		5.8		5.8
82E.061	219	54	86	13.5		13.5	95	0.9	1.2		13.5		13.5		13.5		13.5		13.5
82E.061	220	21	78	10.6		10.6	95	3.3	3.6		8.0		8.0		8.0		8.0		8.0
82E.061	221	54	86	2.8		2.8	95	0.6	0.9		2.8		2.8		2.8		2.8		2.8
82E.061	226	53	86	8.1		8.1	95	0.8	1.1		8.1		8.1		8.1		8.1		8.1
82E.061	229	19	78	9.6		9.6	95	3.0	3.3		7.2		7.2		7.2		7.2		7.2
82E.061	233	82	92	4.8		4.8	95		0.3		4.8		4.8		4.8		4.8		4.8
82E.061	266	78	91	8.1		8.1	95		0.3		8.1		8.1		8.1		8.1		8.1
82E.061	269	13	77	13.2		13.2	95	3.0	3.3		9.9		9.9		9.9		9.9		9.9
82E.061	272	44	78	23.3		23.3	95	3.7	4.0		17.5		17.5		17.5		17.5		17.5
82E.061	276	41	85	2.1		2.1	95	1.0	1.3		2.1		2.1		2.1		2.1		2.1
82E.061	281	17	78	30.5		30.5	95	2.6	2.9		30.5		22.9		22.9		22.9		22.9
82E.061	288	16	77	21.9		21.9	95	3.0	3.3		16.4		16.4		16.4		16.4		16.4
82E.061	290	15	77	2.3		2.3	95	1.6	1.9		2.3		2.3		2.3		2.3		2.3
82E.061	699	38	85	2.9		2.9	95	1.1	1.4		2.9		2.9		2.9		2.9		2.9
82E.061	700	38	85	5.0		5.0	95	0.8	1.1		5.0		5.0		5.0		5.0		5.0

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Residual 2

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	11411.0

							Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		00 ECA	
			Year	Area (ha)			Measured		96	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
Mapsheet	Polygon	Opening	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.061	701	15	77	3.2		3.2	95	1.6	1.9		3.2		3.2		3.2		3.2		3.2
82E.061	710			4.6	4.6		95		0.3	4.6		4.6		4.6		4.6		4.6	
82E.061	752	65	91	3.8	3.8		95		0.3	3.8		3.8		3.8		3.8		3.8	
82E.061	764	18	77	1.5		1.5	95	3.0	3.3		1.1		1.1		1.1		1.1		1.1
82E.061	766	21	78	13.3		13.3	95	4.0	4.3		10.0		10.0		10.0		6.7		6.7
82E.061	767	21	78	6.8		6.8	95	3.3	3.6		5.1		5.1		5.1		5.1		5.1
82E.061	768	24	77	12.2	12.2		95	6.0	6.3	6.1		6.1		6.1		3.1		3.1	
82E.061	769			2.6	2.6		95		0.3	2.6		2.6		2.6		2.6		2.6	
82E.061	770	25	76	4.2	4.2		95	5.6	5.9	2.1		2.1		2.1		2.1		2.1	
82E.061	771	28	78	11.2	5.6	5.6	95	1.9	2.2	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.2	4.2
82E.061	772	28	78	1.4		1.4	95	3.4	3.7		1.1		1.1		1.1		1.1		1.1
82E.061	774	35	85	17.0		17.0	95	1.3	1.6		17.0		17.0		17.0		17.0		17.0
82E.061	775	38	85	1.2		1.2	95	1.1	1.4		1.2		1.2		1.2		1.2		1.2
82E.061	776	41	85	3.9		3.9	95	1.3	1.6		3.9		3.9		3.9		3.9		3.9
82E.061	777	45	85	7.3		7.3	95	1.3	1.6		7.3		7.3		7.3		7.3		7.3
82E.061	778	46	85	33.0		33.0	95	1.3	1.6		33.0		33.0		33.0		33.0		33.0
82E.061	782	50	85	51.9		51.9	95	0.8	1.1		51.9		51.9		51.9		51.9		51.9
82E.061	791	18	78	2.2		2.2	95	3.0	3.3		1.7		1.7		1.7		1.7		1.7
82E.061	792			48.7	48.7		95	9.0	9.3	4.9		4.9		4.9		4.9		4.9	
82E.061	795	55	87	3.3		3.3	95	0.8	1.1		3.3		3.3		3.3		3.3		3.3
82E.061	803	67	87	5.4		5.4	95	0.9	1.2		5.4		5.4		5.4		5.4		5.4
82E.061	804	22	78	5.1		5.1	95	3.3	3.6		3.8		3.8		3.8		3.8		3.8
82E.061	808	68	87	18.6		18.6	95		0.3		18.6		18.6		18.6		18.6		18.6
82E.061	809	21	78	3.8		3.8	95	4.0	4.3		2.9		2.9		2.9		1.9		1.9
82E.061	811	16	77	27.9		27.9	95	8.1	8.4		7.0		7.0		7.0		2.8		2.8
82E.061	812	16	77	57.5		57.5	95	7.7	8.0		14.4		14.4		14.4		14.4		14.4
82E.061	813	16	77	64.1		64.1	95	7.7	8.0		16.0		16.0		16.0		16.0		16.0
82E.061	814	17	78	5.7		5.7	95	2.3	2.6		5.7		5.7		4.3		4.3		4.3
82E.061	819	25	78	3.7	3.7		95	8.1	8.4	0.9		0.9		0.9		0.4		0.4	
82E.061	820	26	77	6.8	6.8		95	5.6	5.9	3.4		3.4		3.4		3.4		3.4	
82E.061	821	31	78	7.7		7.7	95	1.7	2.0		7.7		7.7		7.7		7.7		7.7
82E.061	824	45	85	5.7		5.7	95	1.3	1.6		5.7		5.7		5.7		5.7		5.7
82E.061	825	45	85	14.7		14.7	95	1.3	1.6		14.7		14.7		14.7		14.7		14.7
82E.061	831	16	77	4.8		4.8	95	8.1	8.4		1.2		1.2		1.2		0.5		0.5
82E.061	834	83	92	26.4		26.4	95		0.3		26.4		26.4		26.4		26.4		26.4
82E.061	837			21.1		21.1	95	1.7	2.0		21.1		21.1		21.1		21.1		21.1
82E.061	855			21.7		21.7	95	1.7	2.0		21.7		21.7		21.7		21.7		21.7
82E.061	powerline			47.8		47.8	95		0.3		47.8		47.8		47.8		47.8		47.8
82E.071	448	14	80	10.9		10.9	95	0.6	0.9		10.9		10.9		10.9		10.9		10.9

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Residual 2

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	11411.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration Measured		96	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.071	462	19	80	22.0		22.0	95	2.0	2.3		22.0		22.0		22.0		16.5		16.5
82E.071	466		80	7.8		7.8	95	4.4	4.7		5.9		5.9		3.9		3.9		3.9
82E.071	512	45		10.7		10.7	95	6.0	6.3		5.4		5.4		5.4		2.7		2.7
82E.071	518	11		14.5		14.5	95	5.7	6.0		7.3		7.3		7.3		7.3		7.3
82E.071	523	8	78	15.7		15.7	95	8.1	8.4		3.9		3.9		3.9		1.6		1.6
82E.071	524	8	78	9.5		9.5	95	1.1	1.4		9.5		9.5		9.5		9.5		9.5
82E.071	550	2	78	3.9		3.9	95	6.7	7.0		2.0		1.0		1.0		1.0		1.0
82E.071	566	13	80	4.8		4.8	95	3.0	3.3		3.6		3.6		3.6		3.6		3.6
82E.071	567	50	87	1.1		1.1	95	3.9	4.2		0.8		0.8		0.8		0.8		0.6
82E.071	568	13	80	6.2		6.2	95	3.9	4.2		4.7		4.7		4.7		4.7		3.1
82E.071	569	12	79	7.0		7.0	95	3.0	3.3		5.3		5.3		5.3		5.3		5.3
82E.071	570	12	79	31.8		31.8	95	3.0	3.3		23.9		23.9		23.9		23.9		23.9
82E.071	571	12	79	8.4		8.4	95	1.7	2.0		8.4		8.4		8.4		8.4		8.4
82E.071	572	13	80	5.4		5.4	95	3.0	3.3		4.1		4.1		4.1		4.1		4.1
82E.071	574	16	80	8.6		8.6	95	1.3	1.6		8.6		8.6		8.6		8.6		8.6
82E.071	576	13	80	10.4		10.4	95	3.0	3.3		7.8		7.8		7.8		7.8		7.8
82E.071	589	6	78	18.3		18.3	95	2.6	2.9		18.3		13.7		13.7		13.7		13.7
82E.071	597	68	94	14.2		14.2	95		0.3		14.2		14.2		14.2		14.2		14.2
82E.071	605	33	78	7.1		7.1	95	2.6	2.9		7.1		5.3		5.3		5.3		5.3
82E.071	609	48		51.5		51.5	95	3.5	3.8		38.7		38.7		38.7		38.7		38.7
82E.071	614			4.0		4.0	95	4.1	4.4		3.0		3.0		3.0		2.0		2.0
82E.071	709	51	87	8.7		8.7	95	0.7	1.0		8.7		8.7		8.7		8.7		8.7
82E.071	727	10	80	14.1		14.1	95	2.0	2.3		14.1		14.1		14.1		10.6		10.6
82E.071	728	10	80	3.0		3.0	95	2.0	2.3		3.0		3.0		3.0		2.3		2.3
82E.071	731	10	80	18.2		18.2	95	1.7	2.0		18.2		18.2		18.2		18.2		18.2
82E.071	733	13	80	31.8		31.8	95	3.9	4.2		23.9		23.9		23.9		23.9		15.9
82E.071	751	14	80	14.8		14.8	95	1.7	2.0		14.8		14.8		14.8		14.8		14.8
82E.071	759	40	86	13.3		13.3	95	0.6	0.9		13.3		13.3		13.3		13.3		13.3
82E.071	760	39	86	2.1		2.1	95	2.2	2.4		2.1		2.1		2.1		1.6		1.6
82E.071	762	12	79	24.0		24.0	95	2.6	2.9		24.0		18.0		18.0		18.0		18.0
82E.071	763	12	79	5.6	5.6		95	3.0	3.3	4.2		4.2		4.2		4.2		4.2	
82E.071	767	53	87	29.3		29.3	95	0.8	1.1		29.3		29.3		29.3		29.3		29.3
82E.071	768	50	87	16.6		16.6	95	0.5	0.8		16.6		16.6		16.6		16.6		16.6
82E.071	782	3	78	7.7		7.7	95	3.0	3.3		5.8		5.8		5.8		5.8		5.8
82E.071	783	3	78	5.6		5.6	95	7.4	7.7		1.4		1.4		1.4		1.4		1.4
82E.071	784	6	78	5.9		5.9	95	2.0	2.3		5.9		5.9		5.9		4.4		4.4
82E.071	786	15	80	9.3		9.3	95	1.3	1.6		9.3		9.3		9.3		9.3		9.3
82E.071	787	16	80	19.9		19.9	95	2.3	2.6		19.9		19.9		14.9		14.9		14.9
82E.071	793	12	79	2.3		2.3	95	3.9	4.2		1.7		1.7		1.7		1.7		1.2

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Residual 2

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	11411.0

				Area (ha)			Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		00 ECA	
							Measured		96	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
Mapsheet	Polygon	Opening	Year Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.071	796	66	93	6.8		6.8	95		0.3		6.8		6.8		6.8		6.8		6.8
82E.071	797	66	93	2.1		2.1	95		0.3		2.1		2.1		2.1		2.1		2.1
82E.071	799	3	78	16.5		16.5	95	3.0	3.3		12.4		12.4		12.4		12.4		12.4
82E.071	805	57	89	6.7		6.7	95	0.6	0.9		6.7		6.7		6.7		6.7		6.7
82E.071	806	57	89	3.6		3.6	95	0.6	0.9		3.6		3.6		3.6		3.6		3.6
82E.071	807	57	89	2.1		2.1	95		0.3		2.1		2.1		2.1		2.1		2.1
82E.071	808	57	89	10.0		10.0	95	0.6	0.9		10.0		10.0		10.0		10.0		10.0
82E.071	809	16	80	1.5		1.5	95	2.3	2.6		1.5		1.5		1.1		1.1		1.1
82E.071	811	15	80	7.4		7.4	95	0.9	1.2		7.4		7.4		7.4		7.4		7.4
82E.071	813	71	94	3.4		3.4	95		0.3		3.4		3.4		3.4		3.4		3.4
82E.071	822	57	89	10.4		10.4	95	0.8	1.1		10.4		10.4		10.4		10.4		10.4
82E.071	823	57	89	17.3		17.3	95	0.6	0.9		17.3		17.3		17.3		17.3		17.3
82E.071	825	61	91	6.0		6.0	95		0.3		6.0		6.0		6.0		6.0		6.0
82E.071	826	62	91	5.6		5.6	95		0.3		5.6		5.6		5.6		5.6		5.6
82E.071	840	1	79	2.2	2.2		95	2.0	2.3	2.2		2.2		2.2		1.7		1.7	
82E.071	841	6	78	4.1		4.1	95	3.0	3.3		3.1		3.1		3.1		3.1		3.1
82E.071	842	39	78	1.2		1.2	95	3.3	3.6		0.9		0.9		0.9		0.9		0.9
82E.071	846	67	93	20.7		20.7	95		0.3		20.7		20.7		20.7		20.7		20.7
82E.071	849	67	93	7.2		7.2	95		0.3		7.2		7.2		7.2		7.2		7.2
82E.071	854	72	94	18.7		18.7	95		0.3		18.7		18.7		18.7		18.7		18.7
82E.071	857	72	94	4.5		4.5	95		0.3		4.5		4.5		4.5		4.5		4.5
82E.071	860	19	80	1.3		1.3	95	2.0	2.3		1.3		1.3		1.3		1.0		1.0
82E.071	872		94	27.9		27.9					27.9		27.9		27.9		27.9		27.9
82E.071	873			9.2		9.2					9.2		9.2		9.2		9.2		9.2
82E.071	875		94	13.8		13.8					13.8		13.8		13.8		13.8		13.8
82E.071	876		94	26.2		26.2					26.2		26.2		26.2		26.2		26.2
82E.071	877			2.6		2.6					2.6		2.6		2.6		2.6		2.6
82E.071	878			3.8		3.8					3.8		3.8		3.8		3.8		3.8
82E.071	884	6	78	1.7		1.7	95	2.0	2.3		1.7		1.7		1.7		1.3		1.3
82E.071	885	6	78	3.2		3.2	95	2.6	2.9		3.2		2.4		2.4		2.4		2.4
82E.071	889	61	91	2.3		2.3	95		0.3		2.3		2.3		2.3		2.3		2.3
82E.071	890		89	1.0		1.0		0.6			1.0		1.0		1.0		1.0		1.0
82E.071	902	70	93	2.5		2.5	95		0.3		2.5		2.5		2.5		2.5		2.5
82E.071	920	58	90	1.3		1.3	95		0.3		1.3		1.3		1.3		1.3		1.3
82E.071	921	58	90	0.8		0.8	95		0.3		0.8		0.8		0.8		0.8		0.8
82E.071	922	61	91	0.9		0.9	95		0.3		0.9		0.9		0.9		0.9		0.9
92H.070	132			25.6		25.6	95		0.3		25.6		25.6		25.6		25.6		25.6
92H.070	134	200	80	7.6		7.6	95	2.0	2.3		7.6		7.6		7.6		5.7		5.7
92H.070	243	202	80	7.9		7.9	95	1.5	1.8		7.9		7.9		7.9		7.9		7.9

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Residual 2

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	11411.0

							Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		00 ECA	
			Year	Area (ha)			Measured		96	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
Mapsheet	Polygon	Opening	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.070	248	203	80	33.7		33.7	95	1.8	2.1		33.7		33.7		33.7		33.7		25.3
92H.070	252			2.6		2.6	95		0.3		2.6		2.6		2.6		2.6		2.6
92H.070	283	204	80	16.4		16.4	95	2.3	2.6		16.4		16.4		12.3		12.3		12.3
92H.070	540	217	81	16.8		16.8	95	1.2	1.5		16.8		16.8		16.8		16.8		16.8
92H.070	545	216	84	3.9		3.9	95	1.3	1.6		3.9		3.9		3.9		3.9		3.9
92H.070	554	214	82	21.5		21.5	95	1.3	1.6		21.5		21.5		21.5		21.5		21.5
92H.070	561	215	84	27.3		27.3	95	0.8	1.1		27.3		27.3		27.3		27.3		27.3
92H.070	772	219	83	35.5		35.5	95	1.4	1.7		35.5		35.5		35.5		35.5		35.5
92H.070	788	218	81	31.8		31.8	95	1.4	1.7		31.8		31.8		31.8		31.8		31.8
92H.080	351	202	78	2.0		2.0	95		0.3		2.0		2.0		2.0		2.0		2.0
92H.080	352	202	78	0.8		0.8	95		0.3		0.8		0.8		0.8		0.8		0.8
92H.080	353	202	78	2.9		2.9	95		0.3		2.9		2.9		2.9		2.9		2.9
92H.080	354	202	78	1.3		1.3	95		0.3		1.3		1.3		1.3		1.3		1.3
92H.080	357	203	75	21.8		21.8	95	3.7	4.0		16.4		16.4		16.4		16.4		16.4
92H.080	381	205	77	7.6	7.6		95	3.4	3.7	5.7		5.7		5.7		5.7		5.7	
92H.080	388	205	77	90.4	90.4		95	3.4	3.7	67.8		67.8		67.8		67.8		67.8	
92H.080	396		91	18.1	18.1		95	8.7	9.0	4.5		1.8		1.8		1.8		1.8	
92H.080	718			5.2	5.2		95	24.9	25.2	0.5		0.5		0.5		0.5		0.5	
92H.080	999	202	78	0.9	0.9		95	2.3	2.6	0.9		0.9		0.7		0.7		0.7	
92H.080	1001	201	79	6.9	6.9		95	2.8	3.1	5.2		5.2		5.2		5.2		5.2	
92H.080	1002	201	79	6.1		6.1	95	3.5	3.8		4.6		4.6		4.6		4.6		4.6
92H.080	1003	202	78	9.4	9.4		95	2.3	2.6	9.4		9.4		7.1		7.1		7.1	
92H.080	1004	202	78	7.2		7.2	95	2.3	2.6		7.2		7.2		5.4		5.4		5.4
92H.080	1005	202	78	4.9		4.9	95	2.3	2.6		4.9		4.9		3.7		3.7		3.7
92H.080	1006	204	75	27.3	27.3		95	4.4	4.7	20.5		20.5		13.7		13.7		13.7	
92H.080	1008	202	78	15.8		15.8	95	2.3	2.6		15.8		15.8		11.9		11.9		11.9
92H.080	1009	206	76	25.0	25.0		95	9.8	10.1	2.5		2.5		2.5		2.5		2.5	
92H.080	1012	209	78	1.6	1.6		95	2.3	2.6	1.6		1.6		1.2		1.2		1.2	
92H.080	1014	210	78	4.6	4.6		95	3.3	3.6	3.5		3.5		3.5		3.5		3.5	
92H.080	1015	211	78	3.6	3.6		95	2.3	2.6	3.6		3.6		2.7		2.7		2.7	
92H.080	1016	211	78	18.1	18.1		95	3.3	3.6	13.6		13.6		13.6		13.6		13.6	
92H.080	1019	211	78	4.1	4.1		95	4.0	4.3	3.1		3.1		3.1		2.1		2.1	
92H.080	1030	200	79	14.4		14.4	95	2.6	2.9		14.4		10.8		10.8		10.8		10.8
92H.080	1043	227	75	13.7		13.7	95	8.2	8.5		3.4		3.4		3.4		1.4		1.4
92H.080	1044	228	75	13.5		13.5	95	4.4	4.7		10.1		10.1		6.8		6.8		6.8
92H.080	1045	229	74	9.4		9.4	95	5.6	5.9		4.7		4.7		4.7		4.7		4.7
92H.080	1046	229	74	27.8		27.8	95	4.0	4.3		20.9		20.9		20.9		13.9		13.9
92H.080	1047	232	74	46.6	46.6		95	4.4	4.7	35.0		35.0		23.3		23.3		23.3	
92H.080	1048	232	74	8.8	8.8		95	4.8	5.1	4.4		4.4		4.4		4.4		4.4	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Residual 2

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	11411.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.080	1050	233	79	8.6	8.6		95	2.3	2.6	8.6		8.6		6.5		6.5		6.5	
92H.080	1130	278	87	15.7	15.7		95	1.3	1.6	15.7		15.7		15.7		15.7		15.7	
92H.080	1180	311	86	24.1	24.1		95	0.9	1.2	24.1		24.1		24.1		24.1		24.1	
92H.080	2014	204	75	3.2		3.2	95	4.4	4.7		2.4		2.4		1.6		1.6		1.6
92H.080	2015	204	75	3.1		3.1	95	4.4	4.7		2.3		2.3		1.6		1.6		1.6
92H.080	2016	204	75	5.2		5.2	95	4.4	4.7		3.9		3.9		2.6		2.6		2.6
92H.080	2023	228	75	1.8		1.8	95	8.2	8.5		0.5		0.5		0.5		0.2		0.2
92H.080	2055	233	79	2.9	2.9		95	1.2	1.5	2.9		2.9		2.9		2.9		2.9	

Totals

Area (ha)		
Total	<H60	>H60
2505.7	449.2	2056.5

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	291.8	1780.4	284.6	1721.9	259.8	1690.7	254.6	1651.8	253.2	1631.6
	2072.2		2006.4		1950.5		1906.4		1884.8	
ECA (%):	18.2		17.6		17.1		16.7		16.5	
ECA (%) >H60:	15.6		15.1		14.8		14.5		14.3	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Lost Chain

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	3949.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha) Total	Area (ha) <H60	Area (ha) >H60	Regeneration Measured Year	Regeneration Measured Ht (m)	Regeneration 96 Ht (m)	96 ECA Adjusted (ha) <H60	96 ECA Adjusted (ha) >H60	97 ECA Adjusted (ha) <H60	97 ECA Adjusted (ha) >H60	98 ECA Adjusted (ha) <H60	98 ECA Adjusted (ha) >H60	99 ECA Adjusted (ha) <H60	99 ECA Adjusted (ha) >H60	00 ECA Adjusted (ha) <H60	00 ECA Adjusted (ha) >H60
92H.070	270	207	80	7.5		7.5	95	2.0	2.3		7.5		7.5		7.5		5.6		5.6
92H.070	283	204	80	11.6		11.6	95	2.3	2.6		11.6		11.6		8.7		8.7		8.7
92H.070	290	205	80	36.2		36.2	95	2.0	2.3		36.2		36.2		36.2		27.2		27.2
92H.070	295	206	80	42.6		42.6	95	3.0	3.3		32.0		32.0		32.0		32.0		32.0
92H.070	509	211	84	10.8		10.8	95	0.8	1.1		10.8		10.8		10.8		10.8		10.8
92H.070	564	213	84	67.0		67.0	95	1.3	1.6		67.0		67.0		67.0		67.0		67.0
92H.070	569			44.8		44.8	95		0.3		44.8		44.8		44.8		44.8		44.8
82E.061	763	10	80	3.3	3.3		95	3.0	3.3	2.5		2.5		2.5		2.5		2.5	

Totals

Area (ha) Total	Area (ha) <H60	Area (ha) >H60
223.8	3.3	220.5

	96 ECA Adjusted (ha) <H60	96 ECA Adjusted (ha) >H60	97 ECA Adjusted (ha) <H60	97 ECA Adjusted (ha) >H60	98 ECA Adjusted (ha) <H60	98 ECA Adjusted (ha) >H60	99 ECA Adjusted (ha) <H60	99 ECA Adjusted (ha) >H60	00 ECA Adjusted (ha) <H60	00 ECA Adjusted (ha) >H60
	2.5	209.9	2.5	209.9	2.5	207.0	2.5	196.0	2.5	196.0
	212.3		212.3		209.4		198.5		198.5	
ECA (%):	5.4		5.4		5.3		5.0		5.0	
ECA (%) >H60:	5.3		5.3		5.2		5.0		5.0	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Camp

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	3611.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
82E.071	236			14.4	14.4		95	0.5	0.8	14.4		14.4		14.4		14.4		14.4	
82E.071	237			32.2	32.2		95	2.6	2.9	32.2		24.2		24.2		24.2		24.2	
82E.071	462	10	80	2.8		2.8	95	2.0	2.3		2.8		2.8		2.8		2.1		2.1
82E.071	466		80	7.8		7.8	95	4.4	4.7		5.9		5.9		3.9		3.9		3.9
82E.071	499	9	80	11.2		11.2	95	1.1	1.4		11.2		11.2		11.2		11.2		11.2
82E.071	500	9	80	3.7		3.7	95	1.6	1.9		3.7		3.7		3.7		3.7		3.7
82E.071	728	10	80	0.3		0.3	95	2.0	2.3		0.3		0.3		0.3		0.2		0.2
82E.071	732	245	80	1.3	1.3		95	2.3	2.6	1.3		1.3		1.0		1.0		1.0	
82E.071	735	20	81	49.2		49.2	95	1.1	1.4		49.2		49.2		49.2		49.2		49.2
82E.071	760	39	86	2.2		2.2	95	2.2	2.4		2.2		2.2		2.2		1.7		1.7
82E.071	789	22	78	22.4	22.4		95	3.3	3.6	16.8		16.8		16.8		16.8		16.8	
82E.071	817	58	90	41.9		41.9	95		0.3		41.9		41.9		41.9		41.9		41.9
82E.071	818	58	90	23.2		23.2	95		0.3		23.2		23.2		23.2		23.2		23.2
82E.071	820	54	88	46.7	46.7		95		0.3	46.7		46.7		46.7		46.7		46.7	
82E.071	821	55	90	3.1	3.1		95		0.3	3.1		3.1		3.1		3.1		3.1	
82E.071	826	62	91	5.6		5.6	95		0.3		5.6		5.6		5.6		5.6		5.6
82E.071	905	21	79	1.5	1.5		95	1.1	1.4	1.5		1.5		1.5		1.5		1.5	
92H.080	381	205	77	1	1.0		95	3.4	3.7	0.8		0.8		0.8		0.8		0.8	
92H.080	396		91	1.4	1.4		95	8.7	9.0	0.4		0.1		0.1		0.1		0.1	
92H.080	426	218	77	3.9		3.9	95	3.4	3.7		2.9		2.9		2.9		2.9		2.9
92H.080	525	286	78	3.7		3.7	95	3.3	3.6		2.8		2.8		2.8		2.8		2.8
92H.080	548	322	89	3.4		3.4	95		0.3		3.4		3.4		3.4		3.4		3.4
92H.080	556	320	89	3.8		3.8	95		0.3		3.8		3.8		3.8		3.8		3.8
92H.080	556			5	5.0					5.0		5.0		5.0		5.0		5.0	
92H.080	706		79	36.5	36.5		95	16.6	16.9	3.7		3.7		3.7		3.7		3.7	
92H.080	708		77	20.9		20.9	95	17.0	17.3		2.1		2.1		2.1		2.1		2.1
92H.080	1010	207	78	13.4	13.4		95	3.3	3.6	10.1		10.1		10.1		10.1		10.1	
92H.080	1011	208	80	13.5	13.5		95	3.3	3.6	10.1		10.1		10.1		10.1		10.1	
92H.080	1016	211	78	2.2		2.2	95	3.3	3.6		1.7		1.7		1.7		1.7		1.7
92H.080	1020	212	77	36.8		36.8	95	3.3	3.6		27.6		27.6		27.6		27.6		27.6
92H.080	1021	213	76	24.8		24.8	95	3.3	3.6		18.6		18.6		18.6		18.6		18.6
92H.080	1022	214	76	6.4		6.4	95	3.3	3.6		4.8		4.8		4.8		4.8		4.8
92H.080	1023	214	76	2.4		2.4	95	3.0	3.3		1.8		1.8		1.8		1.8		1.8
92H.080	1024	214	76	2.7		2.7	95	3.3	3.6		2.0		2.0		2.0		2.0		2.0
92H.080	1025	214	76	8.9		8.9	95	3.3	3.6		6.7		6.7		6.7		6.7		6.7
92H.080	1026	215	77	10.9	10.9		95	3.3	3.6	8.2		8.2		8.2		8.2		8.2	
92H.080	1027	216	76	16		16	95	3.3	3.6		12.0		12.0		12.0		12.0		12.0
92H.080	1028	218	77	73.1		73.1	95	3.3	3.6		54.8		54.8		54.8		54.8		54.8

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Camp

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	3611.0

				Area (ha)			Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		00 ECA	
							Measured		96	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
Mapsheet	Polygon	Opening	Year Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.080	1029	219	78	15.1		15.1	95	3.3	3.6		11.3		11.3		11.3		11.3		11.3
92H.080	1031	219	78	28.4		28.4	95	2.3	2.6		28.4		28.4		21.3		21.3		21.3
92H.080	1032	219	78	11.4		11.4	95	2.0	2.3		11.4		11.4		11.4		8.6		8.6
92H.080	1033	219	78	6.3		6.3	95	3.0	3.3		4.7		4.7		4.7		4.7		4.7
92H.080	1034	220	76	10.5	5.3	5.25	95	2.6	2.9	5.3	5.3	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
92H.080	1035	221	79	14.6		14.6	95	3.0	3.3		11.0		11.0		11.0		11.0		11.0
92H.080	1036	222	77	34.4	34.4		95	3.3	3.6	25.8		25.8		25.8		25.8		25.8	
92H.080	1037	223	80	11.8	11.8		95	1.9	2.2	11.8		11.8		11.8		11.8		8.9	
92H.080	1039	224	77	9		9	95	3.3	3.6		6.8		6.8		6.8		6.8		6.8
92H.080	1041	225	77	20.8		20.8	95	3.3	3.6		15.6		15.6		15.6		15.6		15.6
92H.080	1042	226	82	9.7		9.7	95	2.0	2.3		9.7		9.7		9.7		7.3		7.3
92H.080	1067	245	80	2.9		2.9	95	2.3	2.6		2.9		2.9		2.2		2.2		2.2
92H.080	1131	278	87	5.7		5.7	95		0.3		5.7		5.7		5.7		5.7		5.7
92H.080	1138	282	81	17.7	17.7		95	4.0	4.3	13.3		13.3		13.3		8.9		8.9	
92H.080	1139	283	80	55.5	55.5		95	2.3	2.6	55.5		55.5		41.6		41.6		41.6	
92H.080	1140	284	80	11.8		11.8	95	1.7	2.0		11.8		11.8		11.8		11.8		11.8
92H.080	1141	285	80	4.5		4.5	95	2.0	2.3		4.5		4.5		4.5		3.4		3.4
92H.080	1143	286	78	22.8		22.8	95	2.0	2.3		22.8		22.8		22.8		17.1		17.1
92H.080	1144	286	78	12.5		12.5	95	1.1	1.4		12.5		12.5		12.5		12.5		12.5
92H.080	1145	286	78	14.2		14.2	95	2.0	2.3		14.2		14.2		14.2		10.7		10.7
92H.080	1146	286	78	15.4		15.4	95	2.0	2.3		15.4		15.4		15.4		11.6		11.6
92H.080	1147	287	81	11.5	11.5		95	2.3	2.6	11.5		11.5		8.6		8.6		8.6	
92H.080	1148	288	77	15.2		15.2	95	2.3	2.6		15.2		15.2		11.4		11.4		11.4
92H.080	1149	288	77	21.8	10.9	10.9	95	5.3	5.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
92H.080	1171	303	86	12.9		12.9	95	1.3	1.6		12.9		12.9		12.9		12.9		12.9
92H.080	1172	304	86	24.6	24.6		95	0.8	1.1	24.6		24.6		24.6		24.6		24.6	
92H.080	1173	305	86	12.7		12.7	95	1.1	1.4		12.7		12.7		12.7		12.7		12.7
92H.080	1174	306	86	12.9		12.9	95	0.7	1.0		12.9		12.9		12.9		12.9		12.9
92H.080	1175	307	86	14		14	95	1.1	1.4		14.0		14.0		14.0		14.0		14.0
92H.080	1176	308	86	70.5		70.5	95	1.3	1.6		70.5		70.5		70.5		70.5		70.5
92H.080	1198	320	89	19.4		19.4	95	0.5	0.8		19.4		19.4		19.4		19.4		19.4
92H.080	1199	321	89	14.7		14.7	95	0.8	1.1		14.7		14.7		14.7		14.7		14.7
92H.080	1200	322	89	8.4		8.4	95		0.3		8.4		8.4		8.4		8.4		8.4
92H.080	1201	323	89	3.4		3.4	95		0.3		3.4		3.4		3.4		3.4		3.4
92H.080	1202	324	89	5.3		5.3	95		0.3		5.3		5.3		5.3		5.3		5.3
92H.080	1203	325	91	18.1		18.1	95	0.6	0.9		18.1		18.1		18.1		18.1		18.1
92H.080	1204		91	2.2		2.2	95		0.3		2.2		2.2		2.2		2.2		2.2
92H.080	1232	343	94	10.9		10.9	95		0.3		10.9		10.9		10.9		10.9		10.9
92H.080	2012	217	83	2	2.0		95	1.3	1.6	2.0		2.0		2.0		2.0		2.0	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Camp

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	3611.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration Measured		Regeneration 96	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.080	2017	220	76	8.2	8.2		95	3.3	3.6	6.2		6.2		6.2		6.2		6.2	
92H.080	2018	220	76	27.5		27.5	95	3.9	4.2		20.6		20.6		20.6		20.6		13.8
92H.080	2019	220	76	11.3		11.3	95	2.6	2.9		11.3		8.5		8.5		8.5		8.5
92H.080	2020	220	76	12.2	12.2		95	3.3	3.6	9.2		9.2		9.2		9.2		9.2	
92H.080	2021			20	20.0					20.0		20.0		20.0		20.0		20.0	
92H.080	2022	225	77	34.6	17.3	17.3	95	4.4	4.7	13.0	13.0	13.0	13.0	8.7	8.7	8.7	8.7	8.7	8.7
92H.080	2025	308	86	3.1		3.1	95	1.1	1.4		3.1		3.1		3.1		3.1		3.1
92H.080	2046	321	89	5.1	5.1		95	0.8	1.1	5.1		5.1		5.1		5.1		5.1	
92H.080	2047	321	89	9.6	9.6		95	0.8	1.1	9.6		9.6		9.6		9.6		9.6	
92H.080	2048	321	89	1.1	1.1		95		0.3	1.1		1.1		1.1		1.1		1.1	
92H.080	2049	321	89	0.6	0.6		95		0.3	0.6		0.6		0.6		0.6		0.6	
92H.080	2118			3	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	2119			3	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	2120	320	89	5.4	5.4		95		0.3	5.4		5.4		5.4		5.4		5.4	
92H.080	2120			3	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	2124	278	87	2.1	2.1		95		0.3	2.1		2.1		2.1		2.1		2.1	

Totals

Area (ha)		
Total	<H60	>H60
1325.5	467.6	858.0

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	390.5	758.9	380.9	754.7	359.5	736.8	355.1	716.0	352.1	709.1
	1149.3		1135.6		1096.3		1071.1		1061.2	
ECA (%):	31.8		31.4		30.4		29.7		29.4	
ECA (%) >H60:	21.0		20.9		20.4		19.8		19.6	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Trout Above Thirsk

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	7664.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration			96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
							Measured		96										
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.070	188	38	84	24.5		24.5	95		0.3		24.5		24.5		24.5		24.5		24.5
92H.070	189	38	84	59.6		59.6	95	0.9	1.2		59.6		59.6		59.6		59.6		59.6
92H.070	193	41	85	38.8		38.8	95		0.3		38.8		38.8		38.8		38.8		38.8
92H.070	194	40	85	40.5		40.5	95		0.3		40.5		40.5		40.5		40.5		40.5
92H.070	380	39	84	15.1		15.1	95	1.1	1.4		15.1		15.1		15.1		15.1		15.1
92H.070	381	39	84	88.7		88.7	95	1.3	1.6		88.7		88.7		88.7		88.7		88.7
92H.070	382	71	88	0.8		0.8	95		0.3		0.8		0.8		0.8		0.8		0.8
92H.070	383	43	85	6.3		6.3	95	1.1	1.4		6.3		6.3		6.3		6.3		6.3
92H.070	385	42	85	9.2		9.2	95		0.3		9.2		9.2		9.2		9.2		9.2
92H.070	386	1	83	2.3		2.3	95	2.0	2.3		2.3		2.3		2.3		1.7		1.7
92H.080	65	5	81	2.8	2.8		95	2.3	2.6	2.8		2.8		2.1		2.1		2.1	
92H.080	69	4	81	1.6		1.6	95	2.3	2.6		1.6		1.6		1.2		1.2		1.2
92H.080	220	295	86	12.1	12.1		95	2.0	2.3	12.1		12.1		12.1		9.1		9.1	
92H.080	222	248	80	139.6	69.8	69.8	95	2.6	2.9	69.8	69.8	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
92H.080	228	3	78	46.4	46.4		95	3.3	3.6	34.8		34.8		34.8		34.8		34.8	
92H.080	229	2	79	15.6		15.6	95	3.0	3.3		11.7		11.7		11.7		11.7		11.7
92H.080	304			15.0	7.5	7.5	95	8.7	9.0	1.9	1.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
92H.080	305			1.6		1.6	95	8.7	9.0		0.4		0.2		0.2		0.2		0.2
92H.080	380			3.0		3.0					3.0		3.0		3.0		3.0		3.0
92H.080	430	218	77	2.0	2.0		95	3.4	3.7	1.5		1.5		1.5		1.5		1.5	
92H.080	752	6	81	2.6	2.6		95	2.3	2.6	2.6		2.6		2.0		2.0		2.0	
92H.080	1012	209	78	20.6	20.6		95	2.3	2.6	20.6		20.6		15.5		15.5		15.5	
92H.080	1015	211	78	18.7	18.7		95	2.3	2.6	18.7		18.7		14.0		14.0		14.0	
92H.080	1016	211	78	2.4	2.4		95	3.3	3.6	1.8		1.8		1.8		1.8		1.8	
92H.080	1017	211	78	19.7	19.7		95	3.0	3.3	14.8		14.8		14.8		14.8		14.8	
92H.080	1018	211	78	1.0	1.0		95	4.0	4.3	0.8		0.8		0.8		0.5		0.5	
92H.080	1019	211	78	12.0	12.0		95	4.0	4.3	9.0		9.0		9.0		6.0		6.0	
92H.080	1030	200	79	0.7		0.7	95	2.6	2.9		0.7		0.5		0.5		0.5		0.5
92H.080	1049	233	79	46.3	46.3		95	1.1	1.4	46.3		46.3		46.3		46.3		46.3	
92H.080	1050	233	79	45.5	45.5		95	2.3	2.6	45.5		45.5		34.1		34.1		34.1	
92H.080	1051	234	80	4.1	4.1		95	3.0	3.3	3.1		3.1		3.1		3.1		3.1	
92H.080	1052	235	80	10.5	10.5		95	2.3	2.6	10.5		10.5		7.9		7.9		7.9	
92H.080	1053	236	80	7.2	7.2		95	2.3	2.6	7.2		7.2		5.4		5.4		5.4	
92H.080	1054	237	79	3.4	3.4		95	3.3	3.6	2.6		2.6		2.6		2.6		2.6	
92H.080	1055	237	79	34.7	34.7		95	2.3	2.6	34.7		34.7		26.0		26.0		26.0	
92H.080	1056	238	81	20.0	10.0	10.0	95	2.3	2.6	10.0	10.0	10.0	10.0	7.5	7.5	7.5	7.5	7.5	7.5
92H.080	1057	238	81	8.8	8.8		95	2.3	2.6	8.8		8.8		6.6		6.6		6.6	
92H.080	1058	238	81	19.9	19.9		95	2.3	2.6	19.9		19.9		14.9		14.9		14.9	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Trout Above Thirsk

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	7664.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration Measured		96	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.080	1059	239	83	19.0	19.0		95	1.7	2.0	19.0		19.0		19.0		19.0		19.0	
92H.080	1062	242	83	8.6	4.3	4.3	95	1.2	1.5	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
92H.080	1063	242	83	19.8		19.8	95	1.2	1.5		19.8		19.8		19.8		19.8		19.8
92H.080	1064	242	83	22.8	11.4	11.4	95	1.2	1.5	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
92H.080	1065	242	83	7.2	7.2		95	1.6	1.9	7.2		7.2		7.2		7.2		7.2	
92H.080	1066	243	83	3.0	3.0		95	1.7	2.0	3.0		3.0		3.0		3.0		3.0	
92H.080	1068	246	81	28.1	14.1	14.1	95	2.0	2.3	14.1	14.1	14.1	14.1	14.1	14.1	10.5	10.5	10.5	10.5
92H.080	1069	246	81	14.2		14.2	95	2.0	2.3		14.2		14.2		14.2		10.7		10.7
92H.080	1070	246	81	7.2		7.2	95	2.3	2.6		7.2		7.2		5.4		5.4		5.4
92H.080	1071	246	81	23.2		23.2	95	2.0	2.3		23.2		23.2		23.2		17.4		17.4
92H.080	1072	247	82	5.6		5.6	95	2.0	2.3		5.6		5.6		5.6		4.2		4.2
92H.080	1073	249	77	23.6		23.6	95	2.6	2.9		23.6		17.7		17.7		17.7		17.7
92H.080	1074	250	79	100.4	100.4		95	2.3	2.6	100.4		100.4		75.3		75.3		75.3	
92H.080	1075	251	81	4.6	4.6		95	2.0	2.3	4.6		4.6		4.6		3.5		3.5	
92H.080	1076	254	79	3.9		3.9	95	3.0	3.3		2.9		2.9		2.9		2.9		2.9
92H.080	1077	254	79	15.0		15.0	95	2.6	2.9		15.0		11.3		11.3		11.3		11.3
92H.080	1078	255	79	2.3		2.3	95	2.3	2.6		2.3		2.3		1.7		1.7		1.7
92H.080	1079	255	79	2.4		2.4	95	2.3	2.6		2.4		2.4		1.8		1.8		1.8
92H.080	1080	255	79	4.4		4.4	95	2.3	2.6		4.4		4.4		3.3		3.3		3.3
92H.080	1081	257	82	42.0		42.0	95	1.7	2.0		42.0		42.0		42.0		42.0		42.0
92H.080	1082	257	82	3.4	1.7	1.7	95	2.3	2.6	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3
92H.080	1083	257	82	9.3	9.3		95	2.3	2.6	9.3		9.3		7.0		7.0		7.0	
92H.080	1084	257	82	1.7		1.7	95	4.8	5.1		0.9		0.9		0.9		0.9		0.9
92H.080	1085	257	82	2.3		2.3	95	1.7	2.0		2.3		2.3		2.3		2.3		2.3
92H.080	1086	257	82	1.3		1.3	95	1.7	2.0		1.3		1.3		1.3		1.3		1.3
92H.080	1087	257	82	2.2	2.2		95	4.8	5.1	1.1		1.1		1.1		1.1		1.1	
92H.080	1125	276	84	56.2	56.2		95	1.4	1.7	56.2		56.2		56.2		56.2		56.2	
92H.080	1130	278	87	11.2	11.2		95	1.3	1.6	11.2		11.2		11.2		11.2		11.2	
92H.080	1151	289	88	9.1	9.1		95	0.9	1.2	9.1		9.1		9.1		9.1		9.1	
92H.080	1152	290	86	30.9	15.5	15.5	95	3.4	3.7	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
92H.080	1153	292	88	22.4	22.4		95		0.3	22.4		22.4		22.4		22.4		22.4	
92H.080	1154	293	85	12.1	12.1		95	1.3	1.6	12.1		12.1		12.1		12.1		12.1	
92H.080	1155			3.0	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	1156	294	86	46.5	46.5		95	1.3	1.6	46.5		46.5		46.5		46.5		46.5	
92H.080	1157	295	86	11.3	11.3		95	1.3	1.6	11.3		11.3		11.3		11.3		11.3	
92H.080	1158	296	86	21.4	21.4		95	1.3	1.6	21.4		21.4		21.4		21.4		21.4	
92H.080	1159	252	81	9.9	9.9		95	2.3	2.6	9.9		9.9		7.4		7.4		7.4	
92H.080	1160	297	85	19.9	19.9		95	1.4	1.7	19.9		19.9		19.9		19.9		19.9	
92H.080	1162	297	85	11.8	11.8		95	1.7	2.0	11.8		11.8		11.8		11.8		11.8	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage:Trout Above Thirsk

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	7664.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration Measured		Regeneration 96	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
92H.080	1163			1.9		1.9	95		0.3		1.9		1.9		1.9		1.9		1.9
92H.080	1164	252	81	9.4	9.4		95	2.3	2.6	9.4		9.4		7.1		7.1		7.1	
92H.080	1165	298	86	9.0	9.0		95	1.4	1.7	9.0		9.0		9.0		9.0		9.0	
92H.080	1177	309	86	17.2	17.2		95	0.9	1.2	17.2		17.2		17.2		17.2		17.2	
92H.080	1178	310	86	10.7	10.7		95	0.9	1.2	10.7		10.7		10.7		10.7		10.7	
92H.080	1180	311	86	29.6	29.6		95	0.8	1.1	29.6		29.6		29.6		29.6		29.6	
92H.080	1188	290	86	6.8	1.7	5.1	95	0.5	0.8	1.7	5.1	1.7	5.1	1.7	5.1	1.7	5.1	1.7	5.1
92H.080	1189	316	88	10.1	5.1	5.1	95	0.9	1.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
92H.080	1190	317	88	20.2	20.2		95	0.9	1.2	20.2		20.2		20.2		20.2		20.2	
92H.080	1191	318	88	18.7		18.7	95	0.8	1.1		18.7		18.7		18.7		18.7		18.7
92H.080	1192	319	88	5.3		5.3	95	0.9	1.2		5.3		5.3		5.3		5.3		5.3
92H.080	1193	326	88	5.0	5.0		95		0.3	5.0		5.0		5.0		5.0		5.0	
92H.080	1210	327	91	18.0	18.0		95	0.6	0.9	18.0		18.0		18.0		18.0		18.0	
92H.080	1211	328	91	9.8	9.8		95		0.3	9.8		9.8		9.8		9.8		9.8	
92H.080	1212	329	91	3.3	3.3		95		0.3	3.3		3.3		3.3		3.3		3.3	
92H.080	1226	292	94	3.2	3.2		95		0.3	3.2		3.2		3.2		3.2		3.2	
92H.080	2021			20.0	20.0					20.0		20.0		20.0		20.0		20.0	
92H.080	2025	308	86	1.8		1.8	95	1.1	1.4		1.8		1.8		1.8		1.8		1.8
92H.080	2029	291	92	4.7	4.7		95		0.3	4.7		4.7		4.7		4.7		4.7	
92H.080	2033	252	81	19.7	19.7		95	2.3	2.6	19.7		19.7		14.8		14.8		14.8	
92H.080	2034	253	81	2.1		2.1	95	2.3	2.6		2.1		2.1		1.6		1.6		1.6
92H.080	2035	256	80	3.8		3.8	95	6.0	6.3		1.9		1.9		1.9		1.0		1.0
92H.080	2043	326	88	13.0	13.0		95	0.6	0.9	13.0		13.0		13.0		13.0		13.0	
92H.080	2054	242	83	8.8	8.8		95	1.2	1.5	8.8		8.8		8.8		8.8		8.8	
92H.080	2055	233	79	42.3	42.3		95	1.2	1.5	42.3		42.3		42.3		42.3		42.3	
92H.080	2058	238	81	9.6	9.6		95	2.3	2.6	9.6		9.6		7.2		7.2		7.2	
92H.080	2061		94	10.1	10.1		95		0.3	10.1		10.1		10.1		10.1		10.1	
92H.080	2064			5.0	5.0					5.0		5.0		5.0		5.0		5.0	
92H.080	2065	294		7.2	7.2		95		0.3	7.2		7.2		7.2		7.2		7.2	
92H.080	2071	246	81	18.4	9.2	9.2	95	2.3	2.6	9.2	9.2	9.2	9.2	6.9	6.9	6.9	6.9	6.9	6.9
92H.080	2076			3.0	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	2077			3.0	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	2078			3.0	3.0					3.0		3.0		3.0		3.0		3.0	
92H.080	2102			3.0		3.0		5.0			3.0		3.0		3.0		3.0		3.0
92H.080	2103			3.0		3.0		5.0			3.0		3.0		3.0		3.0		3.0
92H.080	2104			3.0		3.0		5.0			3.0		3.0		3.0		3.0		3.0
92H.080	2121			2.3	2.3		95		0.3	2.3		2.3		2.3		2.3		2.3	

Watershed Assessment: ECA Determination

File:
Watershed: Trout
Sub Drainage: Trout Above Thirsk

Regen Growth/year (m):	0.3
H60 Elev (m):	1317.0
Area (ha):	7664.0

Mapsheet	Polygon	Opening	Year Logged	Area (ha)			Regeneration Measured		Regeneration 96	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
				Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60

Totals

Area (ha)		
Total	<H60	>H60
1811.8	1138.5	673.4

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		00 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	1105.1	655.0	1086.5	626.4	998.9	616.2	988.0	600.4	988.0	600.4
	1760.2		1712.9		1615.1		1588.4		1588.4	
ECA (%):	23.0		22.4		21.1		20.7		20.7	
ECA (%) >H60:	8.5		8.2		8.0		7.8		7.8	

Watershed Assessment: ECA Determination

File:
Watershed:
Sub Unit:

Regen Growth/year (m): 0.25
H60 Elev (m): 1317.0
Area (ha): 5876.0

						Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		2000 ECA	
		Year		Area (ha)		Measured		96	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
CP	Block	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
13	1	83	100.4		100.4	87	0.2	2.4		100.4		100.4		100.4		75.3		75.3
13	2	83	7.5		7.5	86	0.2	2.7		7.5		7.5		5.6		5.6		5.6
14	1	76	67.2		67.2	84	0.2	3.2		50.4		50.4		50.4		50.4		50.4
19	1	77	42		42	82	0.2	3.7		31.5		31.5		31.5		31.5		31.5
19	4	77,78	25		25	82	0.2	3.7		18.8		18.8		18.8		18.8		18.8
26	A	75	65.2		65.2	80	0.2	4.2		48.9		48.9		48.9		48.9		32.6
26	B	75	57.1		57.1	80	0.2	4.2		42.8		42.8		42.8		42.8		28.6
29	1	83	98.4	98.4		92	0.2	1.2	98.4		98.4		98.4		98.4		98.4	
29	2	83	66		66	91	0.2	1.4		66.0		66.0		66.0		66.0		66.0
34	3	92	28		28	95	0.2	0.4		28.0		28.0		28.0		28.0		28.0
39	10	89	14.9		14.9	95		0.3		14.9		14.9		14.9		14.9		14.9
99	1	90	1.2		1.2	95		0.3		1.2		1.2		1.2		1.2		1.2
99	2	90	1		1	95		0.3		1.0		1.0		1.0		1.0		1.0
99	3	90	1		1	95		0.3		1.0		1.0		1.0		1.0		1.0
413	1	69,71	251		251	75	0.2	5.4		125.5		125.5		125.5		125.5		125.5
413	A1	70,71	73.5		73.5	75	0.2	5.4		36.8		36.8		36.8		36.8		36.8
413	A2	70,71	69.3		69.3	75	0.2	5.4		34.7		34.7		34.7		34.7		34.7
413	A3	70,71	28.3		28.3	75	0.2	5.4		14.2		14.2		14.2		14.2		14.2
413	A4	68	42		42	75	0.2	5.4		21.0		21.0		21.0		21.0		21.0
413	A5	70,71	9.7		9.7	75	0.2	5.4		4.9		4.9		4.9		4.9		4.9
430	1	76	30.3		30.3	95		0.3		30.3		30.3		30.3		30.3		30.3
431	1	78	30		30	81	0.2	3.9		22.5		22.5		22.5		22.5		22.5
431	2	78	38.5		38.5	81	0.2	3.9		28.9		28.9		28.9		28.9		28.9
431	3	77	49.6		49.6	80	0.2	4.2		37.2		37.2		37.2		37.2		24.8
431	4	77,78	30.4		30.4	80	0.2	4.2		22.8		22.8		22.8		22.8		15.2
431	5	77	33.7		33.7	80	0.2	4.2		25.3		25.3		25.3		25.3		16.9
432	1	77	16.7		16.7	81	0.2	3.9		12.5		12.5		12.5		12.5		12.5
432	2	77	33.8		33.8	81	0.2	3.9		25.4		25.4		25.4		25.4		25.4
434	1	79	30.4		30.4	85	0.2	2.9		30.4		22.8		22.8		22.8		22.8
434	2	77	26.3		26.3	81	0.2	3.9		19.7		19.7		19.7		19.7		19.7
447	1	82	5	5.0		85	0.2	2.9	5.0		3.8		3.8		3.8		3.8	
Opening #	20	66	9.5		9.5	84	0.2	3.2		7.1		7.1		7.1		7.1		7.1
19	3	78	18.6		18.6	87	0.2	2.4		18.6		18.6		18.6		14.0		14.0
84	1	96	22		22					22.0		22.0		22.0		22.0		22.0
84	2	96	23.1		23.1					23.1		23.1		23.1		23.1		23.1

Watershed Assessment: ECA Determination

File:
Watershed:
Sub Unit:

Regen Growth/year (m): 0.25
H60 Elev (m): 1317.0
Area (ha): 5876.0

						Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		2000 ECA	
		Year		Area (ha)		Measured		96	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
CP	Block	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
84	3	96	21.5		21.5					21.5		21.5		21.5		21.5		21.5
84	4	96	18		18					18.0		18.0		18.0		18.0		18.0
84	5	96	21.8		21.8					21.8		21.8		21.8		21.8		21.8
84	6	96	21.6		21.6					21.6		21.6		21.6		21.6		21.6
84	7	96	24.5		24.5					24.5		24.5		24.5		24.5		24.5
84	8	96	8		8					8.0		8.0		8.0		8.0		8.0
84	9	96	13.6		13.6					13.6		13.6		13.6		13.6		13.6
84	10	96	22.5		22.5					22.5		22.5		22.5		22.5		22.5
84	11	96	23.6		23.6					23.6		23.6		23.6		23.6		23.6
84	12	96	24.9		24.9					24.9		24.9		24.9		24.9		24.9
84	13	96	16.4		16.4					16.4		16.4		16.4		16.4		16.4

Totals

Area (ha)		
Total	<H60	>H60
1663.0	103.4	1559.6

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		2000 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
	103.4	1191.5	102.2	1183.9	102.2	1182.0	102.2	1152.2	102.2	1093.2
	1294.9		1286.0		1284.1		1254.4		1195.4	
ECA (%):	22.0		21.9		21.9		21.3		20.3	
ECA (%) >H60:	20.3		20.1		20.1		19.6		18.6	

Watershed Assessment: ECA Determination

File:
Watershed: Trout Ck
Sub Unit: Upper Trout

Regen Growth/year (m):	0.25
H60 Elev (m):	1317.0
Area (ha):	9032.0

						Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		2000 ECA	
		Year		Area (ha)		Measured		95	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
CP	Block	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
11	1		11.1		11.1					11.1		11.1		11.1		11.1		11.1
11	1	83	13		13	86	0.2	2.7		13.0		13.0		9.8		9.8		9.8
11	2	82	61.4		61.4	86	0.2	2.7		61.4		61.4		46.1		46.1		46.1
11	3	82	85.6		85.6	86	0.2	2.7		85.6		85.6		64.2		64.2		64.2
11	4	82	24.4		24.4	86	0.2	2.7		24.4		24.4		18.3		18.3		18.3
12		81	56.3	19.0	37.3	91	0.2	1.4	19.0	37.3	19.0	37.3	19.0	37.3	19.0	37.3	19.0	37.3
19	1	77	54		54	82	0.2	3.7		40.5		40.5		40.5		40.5		40.5
19	3	78	100		100	83	0.2	3.4		75.0		75.0		75.0		75.0		75.0
19	4	77,78	5		5	82	0.2	3.7		3.8		3.8		3.8		3.8		3.8
19	5	77	85		85	82	0.2	3.7		63.8		63.8		63.8		63.8		63.8
19	6	83	23.5		23.5	88	0.2	2.2		23.5		23.5		23.5		23.5		17.6
22	1	80	32.5		32.5	85	0.2	3.0		32.5		24.4		24.4		24.4		24.4
22	2	80	26.5		26.5	85	0.2	2.9		26.5		19.9		19.9		19.9		19.9
22	3	80	60.5		60.5					60.5		60.5		60.5		60.5		60.5
22	4	80	23		23	84	0.2	3.2		17.3		17.3		17.3		17.3		17.3
22	5	80	65		65	84	0.2	3.2		48.8		48.8		48.8		48.8		48.8
22	6	80	4		4	84	0.2	3.2		3.0		3.0		3.0		3.0		3.0
22	7	81	36.5		36.5	84	0.2	3.2		27.4		27.4		27.4		27.4		27.4
22	8	81	59		59	84	0.2	3.2		44.3		44.3		44.3		44.3		44.3
22	9	81	61		61	84	0.2	3.2		45.8		45.8		45.8		45.8		45.8
39	1	83	28.3	28.3		93	0.2	0.9	28.3		28.3		28.3		28.3		28.3	
39	2	85	9.4	9.4		90	0.2	1.7	9.4		9.4		9.4		9.4		9.4	
39	3	85	8.6		8.6	91	0.2	1.4		8.6		8.6		8.6		8.6		8.6
39	4	85	15.3		15.3	91	0.2	1.4		15.3		15.3		15.3		15.3		15.3
39	5	85	31.1		31.1	91	0.2	1.4		31.1		31.1		31.1		31.1		31.1
39	6	85	3		3	90	0.2	1.7		3.0		3.0		3.0		3.0		3.0
39	7	86-87	15.5	3.2	12.3				3.2	12.3	3.2	12.3	3.2	12.3	3.2	12.3	3.2	12.3
39	8	86	24.3		24.3	91	0.2	1.4		24.3		24.3		24.3		24.3		24.3
39	9	86	27.1		27.1	91	0.2	1.4		27.1		27.1		27.1		27.1		27.1
40	1	88	22.6	10.5	12.1	93	0.2	0.9	10.5	12.1	10.5	12.1	10.5	12.1	10.5	12.1	10.5	12.1
40	2	88	3.8	3.8		93	0.2	0.9	3.8		3.8		3.8		3.8		3.8	
40	3	88	23.5		23.5	93	0.2	1.0		23.5		23.5		23.5		23.5		23.5
40	4	88	23.3		23.3	93	0.2	0.9		23.3		23.3		23.3		23.3		23.3
40	2A	88	14.9	14.9		93	0.2	0.9	14.9		14.9		14.9		14.9		14.9	
59	1	91	14.7	14.7					14.7		14.7		14.7		14.7		14.7	

Watershed Assessment: ECA Determination

File:
Watershed: Trout Ck
Sub Unit: Upper Trout

Regen Growth/year (m):	0.25
H60 Elev (m):	1317.0
Area (ha):	9032.0

						Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		2000 ECA	
		Year		Area (ha)		Measured		95	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
OP	Block	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
59	4	91	9.8		9.8	95	0.2	0.4		9.8		9.8		9.8		9.8		9.8
59	5	91	25.9	11.8	14.1	93	0.2	0.9	11.8	14.1	11.8	14.1	11.8	14.1	11.8	14.1	11.8	14.1
59	6	91	20.2		20.2	93	0.2	0.9		20.2		20.2		20.2		20.2		20.2
67	1	93	5.9		5.9					5.9		5.9		5.9		5.9		5.9
67	3	93	9.7		9.7					9.7		9.7		9.7		9.7		9.7
67	4	93	16		16					16.0		16.0		16.0		16.0		16.0
67	2A	94	12.3		12.3					12.3		12.3		12.3		12.3		12.3
78	1	94	17.9		17.9					17.9		17.9		17.9		17.9		17.9
78	2	94	16.5		16.5					16.5		16.5		16.5		16.5		16.5
78	3	94	15		15					15.0		15.0		15.0		15.0		15.0
78	4	94	16		16					16.0		16.0		16.0		16.0		16.0
78	5	94	10.6		10.6					10.6		10.6		10.6		10.6		10.6
78	6	94	19.8		19.8					19.8		19.8		19.8		19.8		19.8
78	7	94	15.7		15.7					15.7		15.7		15.7		15.7		15.7
87	10	92	2.6	2.6		94	0.2	0.7	2.6		2.6		2.6		2.6		2.6	
87	12	92	10	10.0		94	0.2	0.7	10.0		10.0		10.0		10.0		10.0	
87	13	92	1.4		1.4	94	0.2	0.7		1.4		1.4		1.4		1.4		1.4
87	14	92	3.1	3.1		94	0.2	0.7	3.1		3.1		3.1		3.1		3.1	
87	15	91	1.7	1.7		93	0.2	0.9	1.7		1.7		1.7		1.7		1.7	
87	16	92	1.2	1.2		94	0.2	0.7	1.2		1.2		1.2		1.2		1.2	
87	17	92	0.8	0.8		94	0.2	0.7	0.8		0.8		0.8		0.8		0.8	
95	2	93	8.8		8.8					8.8		8.8		8.8		8.8		8.8
95	3	93	4		4					4.0		4.0		4.0		4.0		4.0
95	4	93	1.6	1.6					1.6		1.6		1.6		1.6		1.6	
99	94A	94	0.9		0.9					0.9		0.9		0.9		0.9		0.9
345	1		16.8		16.8					16.8		16.8		16.8		16.8		16.8
345	B		15.1		15.1					15.1		15.1		15.1		15.1		15.1
Opening	242	66-68	56		56	73	0.2	5.9		28.0		28.0		28.0		28.0		28.0
Opening	244	76	20.7		20.7	84	0.2	3.2		15.5		15.5		15.5		15.5		15.5
Opening	276	84	20.7		20.7	89	0.2	1.9		20.7		20.7		20.7		20.7		20.7
Opening	277	84	66.2		66.2	89	0.2	1.9		66.2		66.2		66.2		66.2		66.2
P	1	78	46.5		46.5	83	0.2	3.4		34.9		34.9		34.9		34.9		34.9
P	2	79	64		64	84	0.2	3.2		48.0		48.0		48.0		48.0		48.0
P	3	78-79	98.3	90.2	8.1	84	0.2	3.2	67.7	6.1	67.7	6.1	67.7	6.1	67.7	6.1	67.7	6.1
P	4	79	34	14.9	19.1	82	0.2	3.7	11.2	14.3	11.2	14.3	11.2	14.3	11.2	14.3	11.2	14.3
P	5	78	43.3	6.8	36.5	82	0.2	3.7	5.1	27.4	5.1	27.4	5.1	27.4	5.1	27.4	5.1	27.4
blk 1 woodlot	1	95	16.8		16.8	95	0.2	0.4		16.8		16.8		16.8		16.8		16.8

Watershed Assessment: ECA Determination

File:
Watershed: Trout Ck
Sub Unit: Upper Trout

Regen Growth/year (m):	0.25
H60 Elev (m):	1317.0
Area (ha):	9032.0

						Regeneration			96 ECA		97 ECA		98 ECA		99 ECA		2000 ECA	
		Year		Area (ha)		Measured		95	Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)		Adjusted (ha)	
CP	Block	Logged	Total	<H60	>H60	Year	Ht (m)	Ht (m)	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
blk b woodlot	5	95	15.1		15.1	95	0.2	0.4		15.1		15.1		15.1		15.1		15.1
108	1	95	4		4					4.0		4.0		4.0		4.0		4.0
108	2	95	3.2		3.2					3.2		3.2		3.2		3.2		3.2
108	3	95	4.7		4.7					4.7		4.7		4.7		4.7		4.7
108	4	95	3.9	3.9					3.9		3.9		3.9		3.9		3.9	
108	5	95	0.8		0.8					0.8		0.8		0.8		0.8		0.8
108	6	95	2.3		2.3					2.3		2.3		2.3		2.3		2.3
108	7	95	2		2					2.0		2.0		2.0		2.0		2.0
108	8	95	8.1		8.1					8.1		8.1		8.1		8.1		8.1
108	9	95	20		20					20.0		20.0		20.0		20.0		20.0
108	10	95	36.7		36.7					36.7		36.7		36.7		36.7		36.7
108	11	95	25.9		25.9					25.9		25.9		25.9		25.9		25.9
108	12	95	20.8		20.8					20.8		20.8		20.8		20.8		20.8
108	13	95	6	6.0					6.0		6.0		6.0		6.0		6.0	
power line			92	1.0	91				1.0	91.0	1.0	91.0	1.0	91.0	1.0	91.0	1.0	91.0

Totals

Area (ha)		
Total	<H60	>H60
2144.0	259.4	1884.6

	96 ECA Adjusted (ha)		97 ECA Adjusted (ha)		98 ECA Adjusted (ha)		99 ECA Adjusted (ha)		2000 ECA Adjusted (ha)	
	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60	<H60	>H60
ECA (ha)	231.4	1684.8	231.4	1670.0	231.4	1623.9	231.4	1623.9	231.4	1618.0
Total ECA (ha)	1916.2		1901.4		1855.3		1855.3		1849.5	
ECA (%):	21.2		21.1		20.5		20.5		20.5	
ECA (%) >H60:	18.7		18.5		18.0		18.0		17.9	

APPENDIX D

Photographs

PHOTO 1. Trout Creek at Okanagan Lake. *(July 1996 - ID# 6-11)*

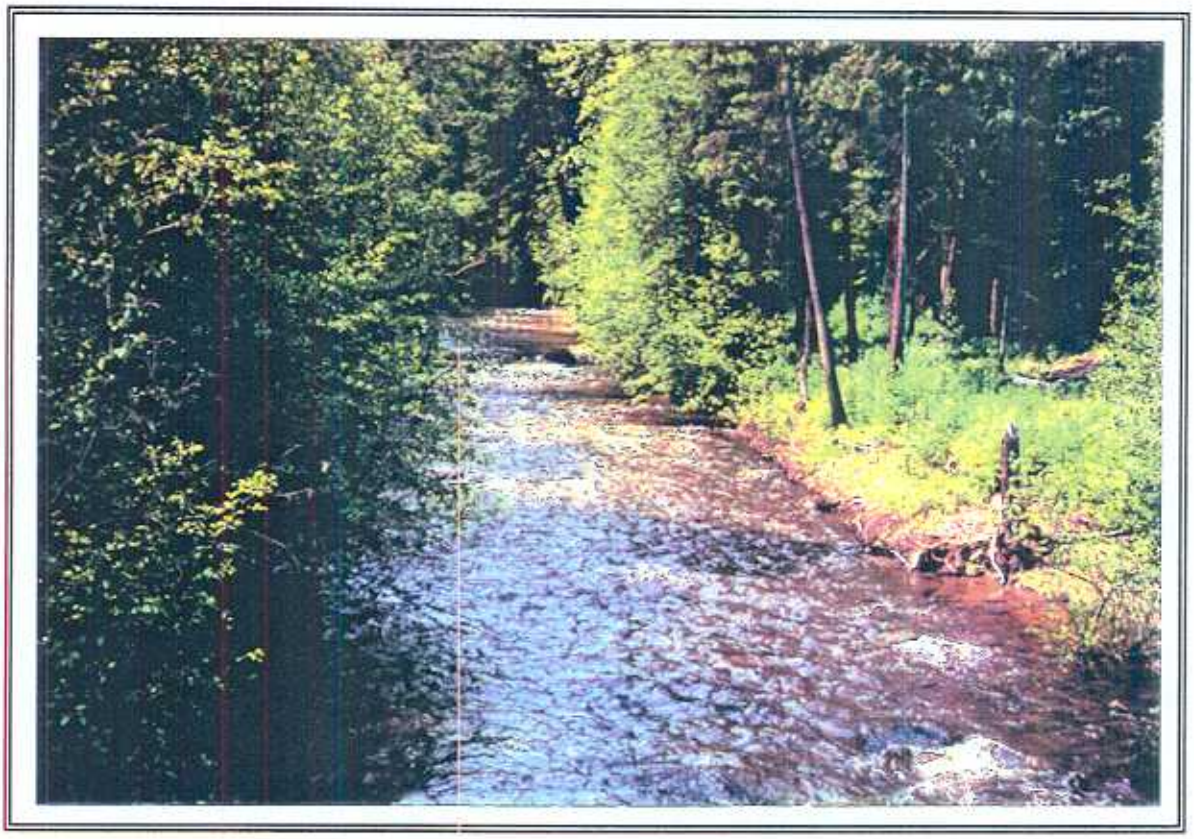


PHOTO 2. Lower Trout Creek in the Residual above Intake 1. *(June 1996- ID# 6-9)*

PHOTO 3. Lower Darke Creek approximately 100 m from Trout Creek.
(June 1996 - ID# 6-8)

PHOTO 4. Road surface erosion directly above Darke Lake in the Darke Lake Park.
(June 1996 - ID# 6-5)

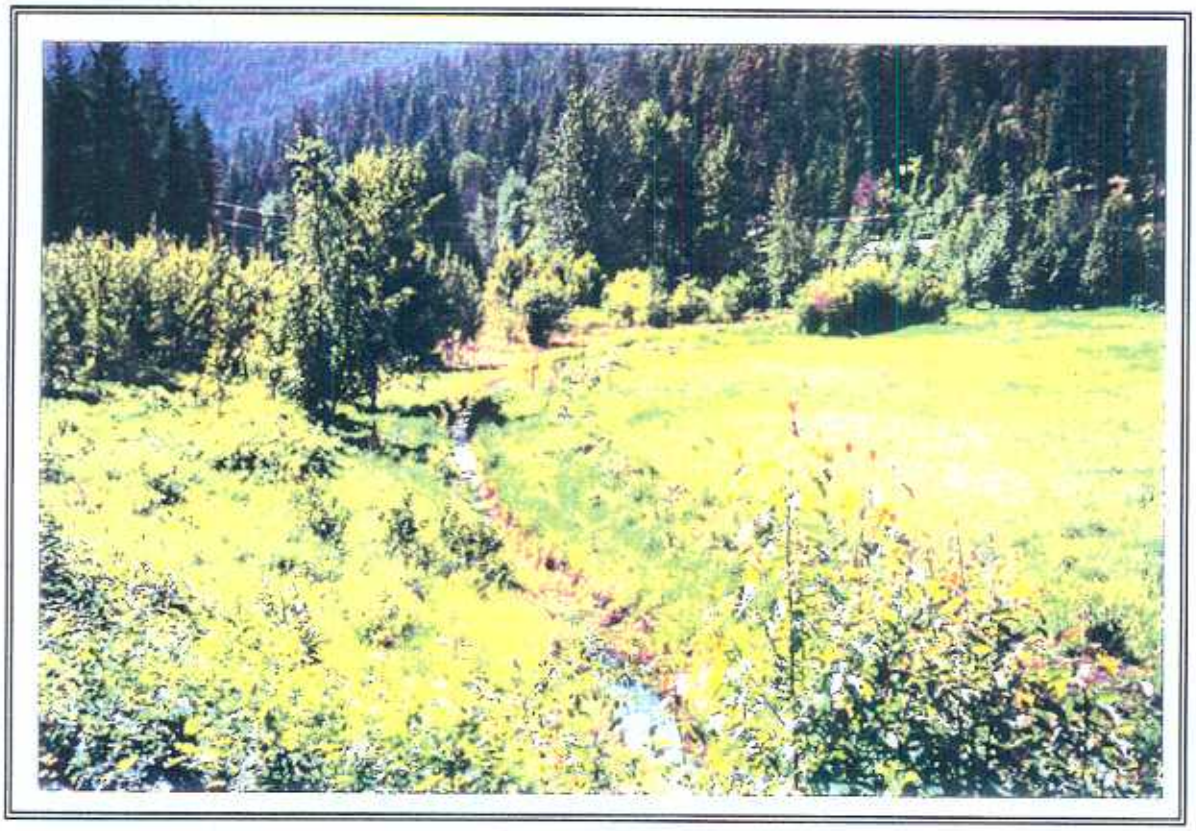


PHOTO 5. Middle reaches of Darke Creek flowing through agricultural land. *(June 1996 - ID# 6-7)*

PHOTO 6. Isintok Creek directly above Isintok Main. *(June 1996 - ID# 5-10)*

PHOTO 7. Bull Creek directly above the mainline into the Bull Creek sub-basin. *(June 1996 - ID# 5-9)*

PHOTO 8. Typical road surfaces in the Bull Creek sub-basin. *(June 1996 - ID# 5-8)*

PHOTO 9. Trout Creek below the confluence of the Lost Chain Creek sub-basin. *(June 1996 - ID# 4-14)*

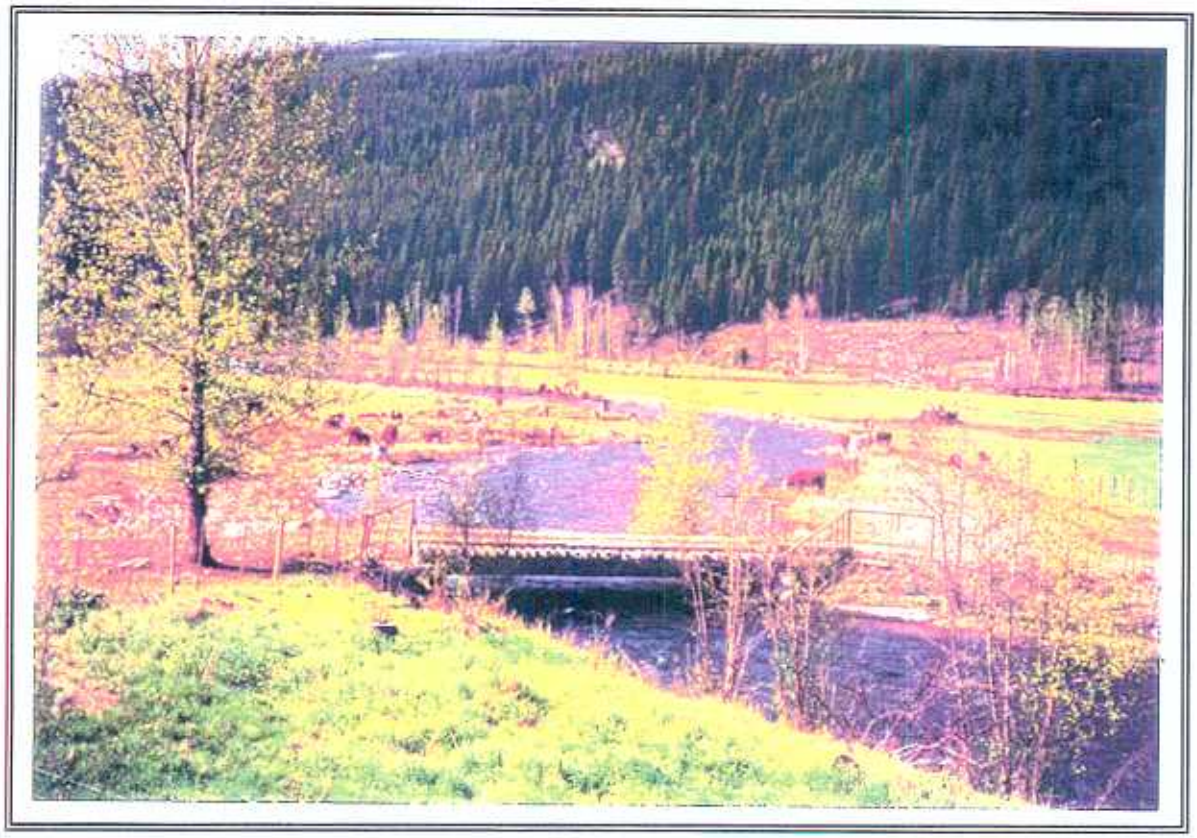


PHOTO 10. Cattle grazing on private land directly adjacent to Trout Creek in the Residual above Intake 2. *(May 1996 - ID# 7-1)*

PHOTO 11. Upper Lost Chain Creek. *(June 1996 - ID# 4-24)*

PHOTO 12. Road surface erosion in the upper Lost Chain Creek sub-basin.
(June 1996 - ID# 5-1)

PHOTO 13. Sediment deposits off of road surfaces into a clearcut in the upper Lost Chain Creek sub-basin. *(June 1996 - ID# 5-2)*

PHOTO 14. Tributary channel to Camp Creek at 25.25 km on Glen Lake Main. Channel deposits are associated with two road related landslides. *(June 1996 - ID# 4-3)*

PHOTO 15. Chapman Creek at Glen Lake Main. Evidence of bed movement and channel incision. *(June 1996 - ID# 4-4)*

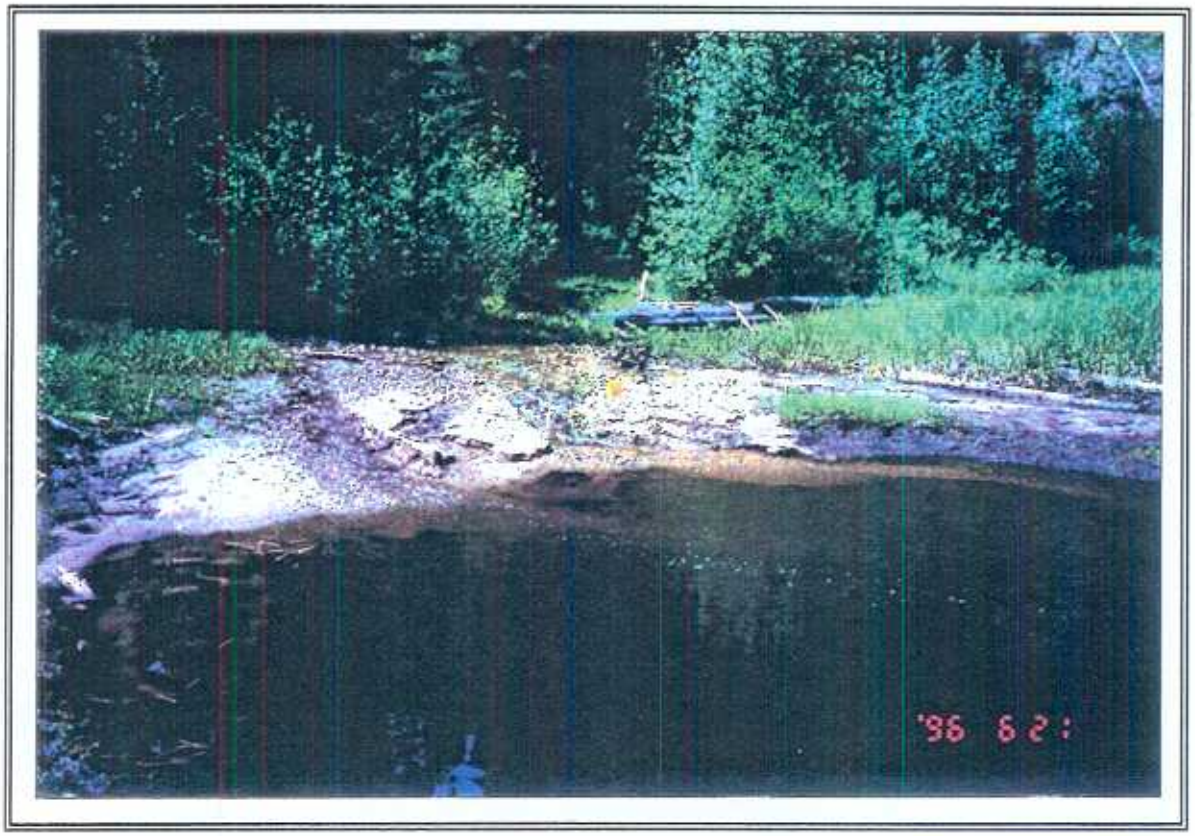


PHOTO 16. Sediment deposition from Chapman Creek into a old beaver pond on Camp Creek. *(June 1996 - ID# 4-6)*

PHOTO 17. Lower Camp Creek at the stream gauging station located at 28.5 km on Glen Lake Main. *(June 1996 - ID# 3-1)*

PHOTO 18. Sediment deposition in a ditch adjacent to Glen Lake Main. *(June 1996 - ID# 4-7)*

PHOTO 19. Road surface erosion on the access road to the powerline in the Camp Creek sub-basin. *(June 1996 - ID# 4-13)*

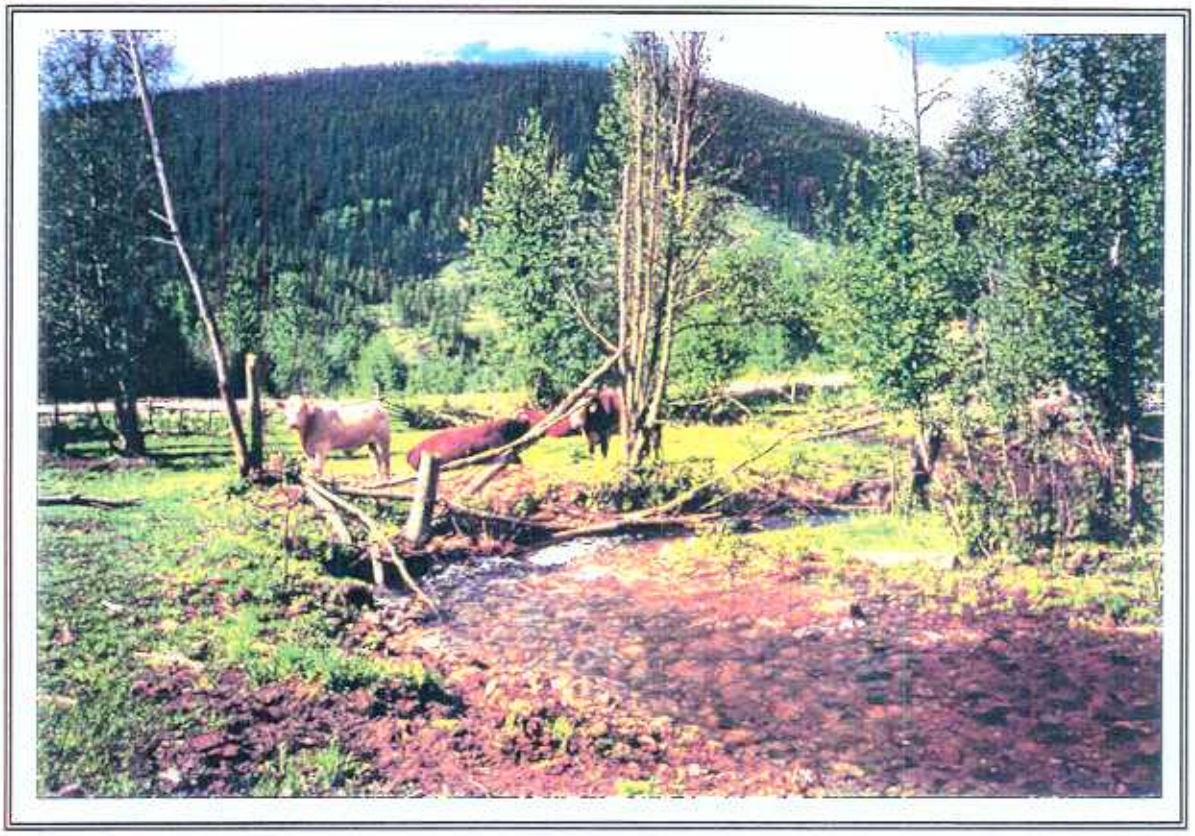


PHOTO 20. Cattle grazing on Camp Creek directly above the mainline between Summerland and Osprey Lake. *(June 1996 - ID# 7-2)*

PHOTO 21. A road related landslide above the tributary shown in Photograph 14.
(June 1996 - ID# 3-14)

PHOTO 22. Trout Creek approximately 1 km above Thirsk Lake.
(June 1996 - ID# 2-16)

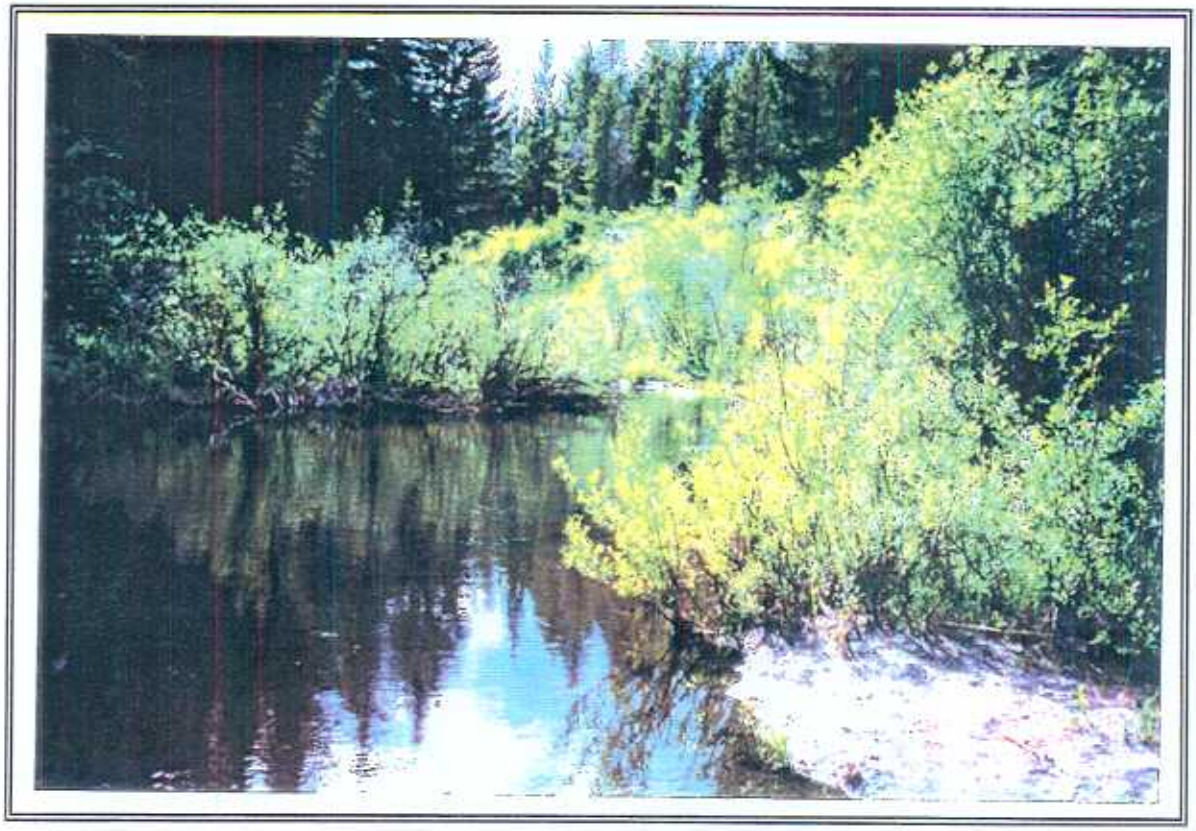


PHOTO 23. Trout Creek directly above Thirsk Lake. *(June 1996 - ID# 2-17)*

PHOTO 24. Logging on private land in the Residual above Thirsk Lake.
(Note: Extensive surface erosion potential) *(June 1996 - ID# 2-14)*

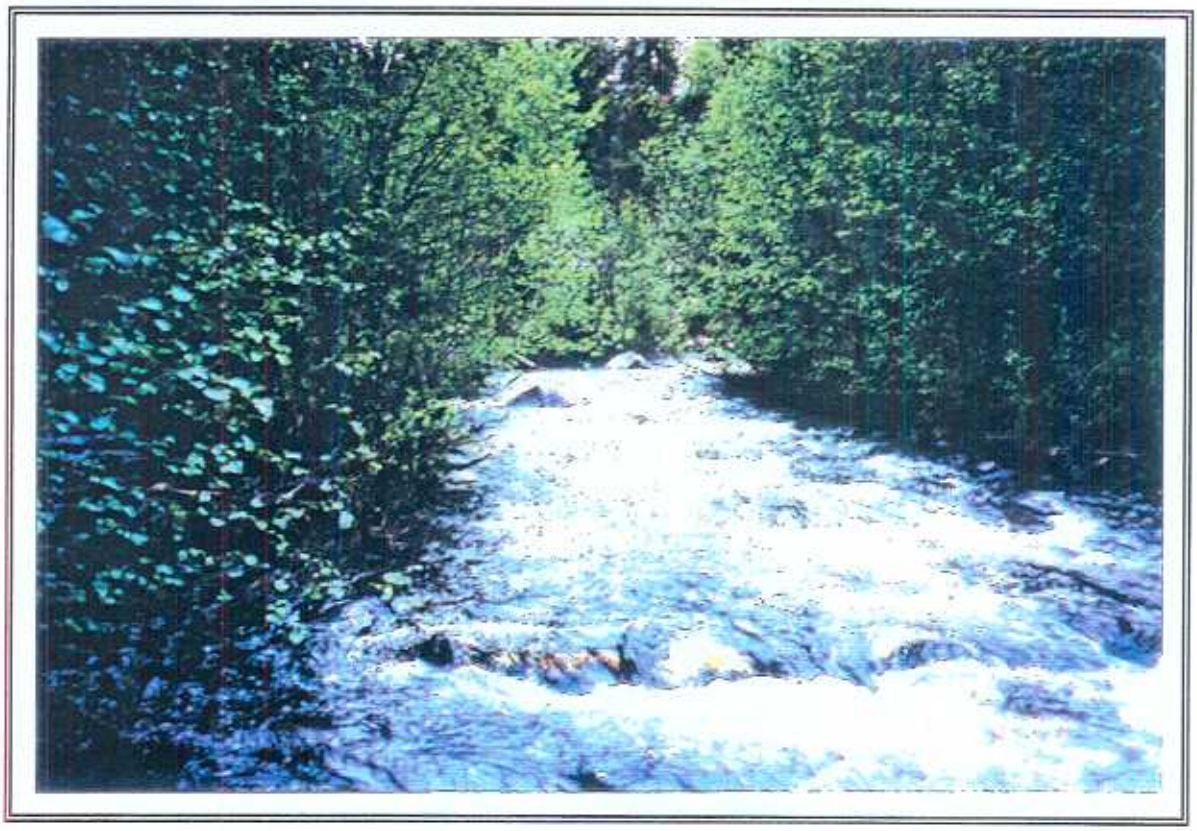


PHOTO 25. Below confluence of North Trout Creek and Upper Trout Creek sub-basins.
(June 1996 - ID# 2-12)

PHOTO 26. Peachland Main at 42 km directly adjacent to North Trout Creek.
(June 1996 - ID# 1-25)

PHOTO 27. Recent landslide into North Trout Creek. Peachland Main at 42 km is shown in the background. *(June 1996 - ID# 1-15)*

PHOTO 28. Sediment deposition in North Trout Creek directly below recent landslide. *(June 1996 - ID# 1-23)*

PHOTO 29. Sediment deposition in North Trout Creek sub-basin directly downstream from recent landslide. *(June 1996 - ID# 1-24)*

PHOTO 30. Overview of the Upper Trout Creek sub-basin looking south.
(June 1996 - ID# 1-4)

PHOTO 31. Trout Creek in the Upper Trout Creek sub-basin directly below the Old Trout Main bridge at ~ 26 km. *(June 1996 - ID# 2-7)*

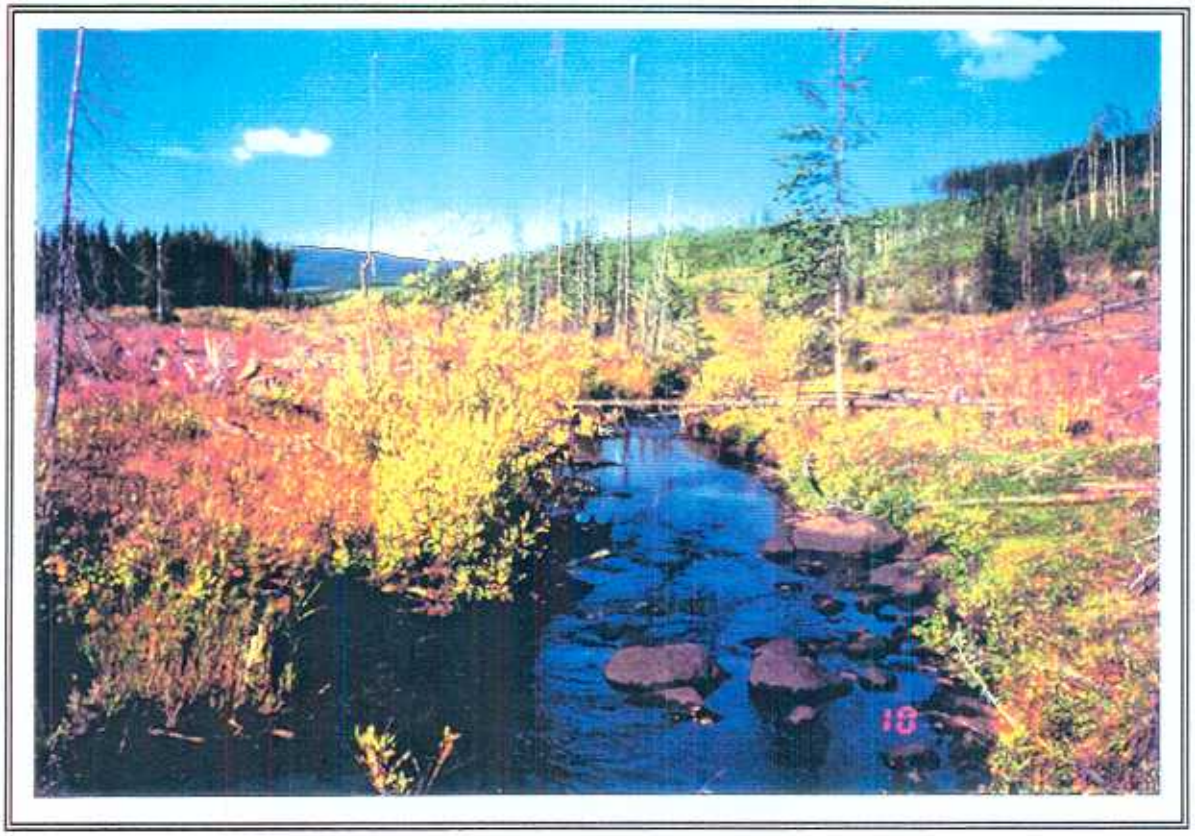


PHOTO 32. Streamside logging on Trout Creek in the Upper Trout Creek sub-basin. *(September 1995 - ID# 8-1)*

PHOTO 33. Bank erosion partially due to cattle trampling and compaction of streambanks in the Upper Trout Creek sub-basin.
(September 1995 - ID# 8-2)

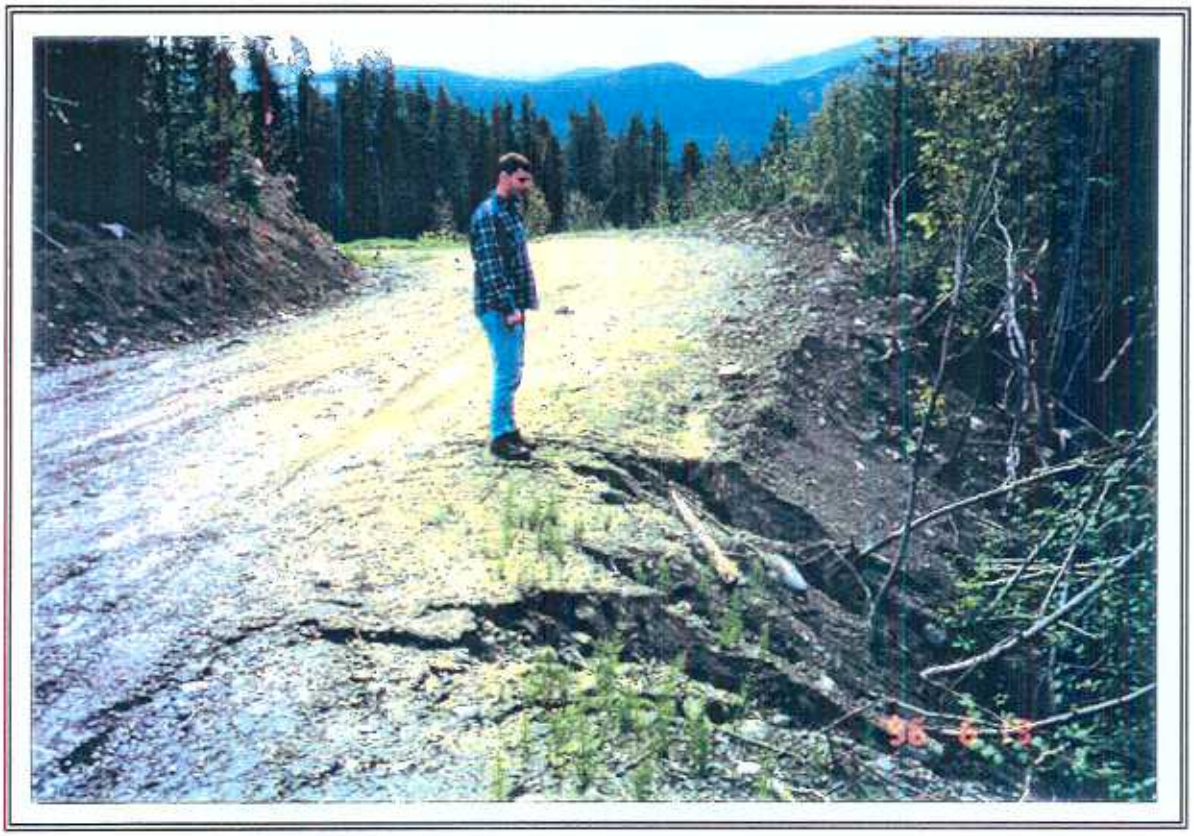


PHOTO 34. Road fill erosion in the Upper Trout Creek sub-basin.
(June 1996 - ID# 1-6)

PHOTO 35. Sediment deposition in a tributary Creek in the Upper Trout Creek sub-basin. *(June 1996 - ID# 1-9)*

APPENDIX E

Field Notes

	STOP 1			
	CABLE YARDED BLOCK WEST OF POWERLINE			
RI P1-4	PANORAMIC VIEW OF UPPER TROUT CREEK			
ROADS	OVERVIEW	- SURFACE EROSION - HIGH Rutting on road ditchlines eroding, cutbanks appear unstable		
CHANNELS	OVERVIEW	- Minor downcutting		
RI P5	- SURFACE EROSION ON ROAD		} down hill from Stop 1	
RI P6	Fill eroding			
RI P7	cut eroding			
RI P8, 9	Sediment in creek from recent road activity			
	According to RB, Channel has woody debris all the way up			
	Ideally - a bucket excavator that could reach to walk on all roads.			

STOP 2

R1 P10 Pitin Ck @ Peachland Main

Sediment in ditch

Pitin Ck

Bed - Boulder/Cobble
4m wide

Control - Boulder
cascade pool

RIP - Conifer / Alder

BANKS - Stable Boulder
- Boulders upper

R1 P11/12 up/Down Pitin

Small portion of Sed. in channel - natural

Ditch inputting a large portion of fines

Stop 3

Creek to West of Pitin Ck

Bed - Cobble/Boulder
control - large boulder
cascade pool

R1 P13,14 Creek up/Down

Banks - sand/cobble
RIP - intact

Peak flow does not appear to be an issue - banks look stable.

Slopes are coupled to creek

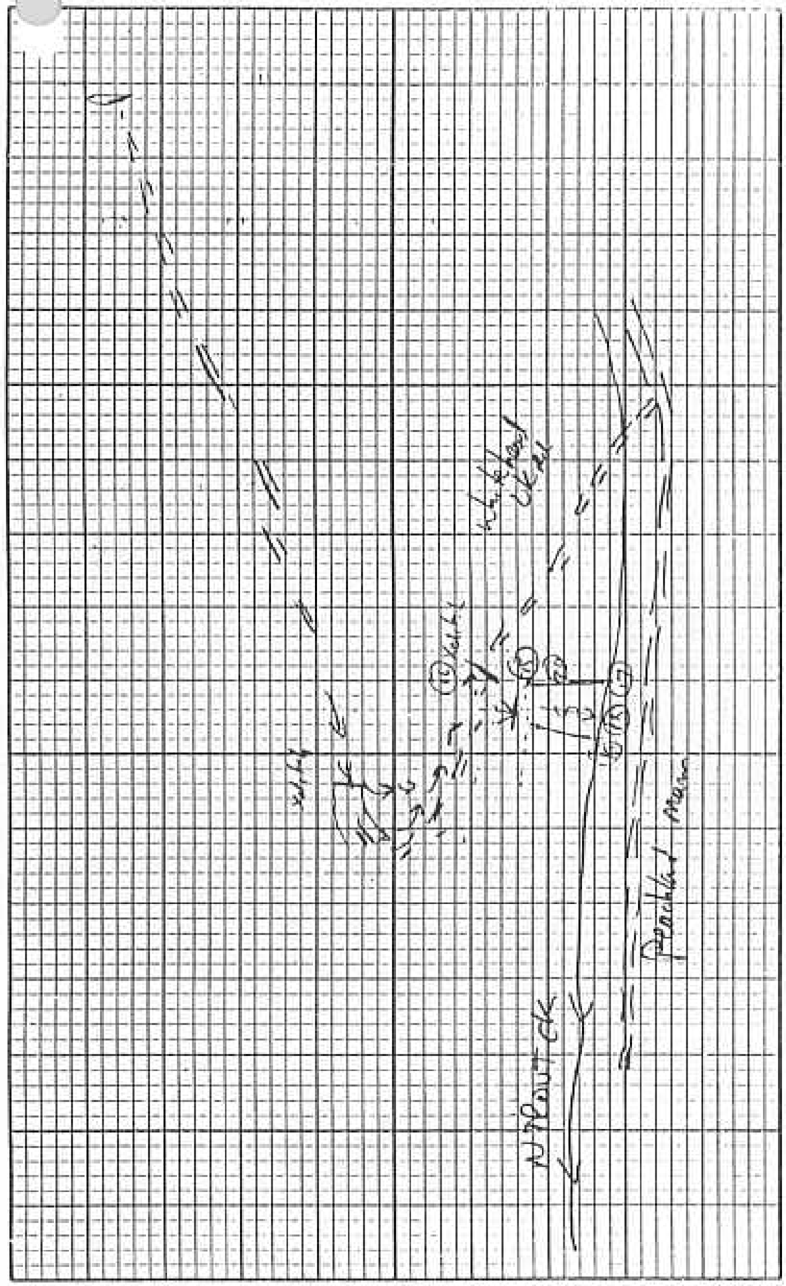
evidence of old peak flows - bowling alley'ish

STOP 4

R1 P15 Slide @ Whitefield Rd
appears as a result of inadequate crossditching - redirects 450 m of road drainage onto perched wallis toe, flows down old road off White Fed rd onto saturated slope

P16 X ditch @ top of slide

P17-19 looking up slide
Glacial till material



Slide Dimensions 35m wide
150m long

P1 P20 looking across slide
P1 P21 1st Terrace of slide
R1 P22 Mud up a tree
P1 P23 Sediment in ?? Trout below Slide

R1 P24

P1 P25 Road / Creek / Slide Junction
R2 P1

STOP5

R2 P2 Sump Infilling on Blockhead road.
R2 P3 Road surface erosion

Road surface +

Stop 6 ?? CK

Evidence of Bed Movement
Bed - Boulder/cobble
- boulder control
4% slope
Banks Mossy, Cobble/sand.
- some undercut but no new roots

R2 P4,5

Bed Movement - evidence by rock lines.
Point bars have been overflowed
?? ?? in ?? W/S
due to high snow

STOP 7

R2 P6,7 old Trout main bridge 26km

BED - Gravel / Fine Sand
control - gradient

width 5m

D 7cm

d 1.1m

$\vec{V}$ .5m/s

RIP - conifer / willow
- old willow areas impacted by cows

- MINOR amount of LWD present

Banks fine sand + organic

- Creek flowing through floodplain here, meandering
cow trampling has compacted soil
4.5 km below Headwaters Ck

STOP 8

BED Sand / gravel
similar to previous site
but with less cattle Damage evidence

R2 P8,9

STOP 9

N Trout ck just above confluence of upper Trout

Bed Boulder / cobble sand
control - channel confinement

width 5m

D 25

d 60cm

RIP willow - old road along it

Evidence of Peak Flows
rock line,
Sand deposits possibly from slide above

Banks - angular material
LWD - none

R2 P10,11 up / Down channel

STOP 10

confluence N. Trout / Upper Trout

BED - Boulder
control - boulder

width 6m
D 35cm
d 13m
LWD - none

BANK - boulders, cobbles
- some sand
RIP - intact - conifers

R2 P12 13 up/downstream

R2 P14 Private logging

STOP 11

TROUT CK ABOVE TIMBER

BED - Boulder Cobble Sed.
Control boulder
D 10cm
d 7
width 7m
Bedload Cobbles, Sand
Bank Sandy loam

LWD none

RIP - NUKED
no evidence of erosion because of this tough

Pebs - Sanded

R2 P15, 16 up/Downstream

S 12
THIRSK wetland.

BED 15m
lots of side channels into Thirsk
sand / silt
Bedload sand silt
Control gradient
Bed Material Sandy loam

extensive deposits of Sands

Naturally aggraded Area

RIP willows
LWD - none

STOP 13
TROUT CREEK FROM THIRSK JUST Below gauging stn.

6m wide
BED - BOULDER COBBLE
D 15cm
d 180cm
Control boulders/gradient
RIP - willows
LWD none

Banks - Boulder cobble gravel

Note this section is regulated by a dam on Thirsk Lake

Cumulative impacts are masked by the size of Trout, Thirsk Lake. Hard to Discern logging related ...

STOP 11 Camp Ck Above
RVR

R2 P21 - Channel widening on Camp Ck

P24 Bank Disturbance

R2 P23/24 Up/Down channel

Bed - cobble, gravel, sand

D - 20cm

d .6m

Slope 3%

Width 3m

Bed mat cobbles, sand

control boulders

RIP - logged 1 side
smaller other side

LWD - none

Peak flow? no

Fish in here

P25 - Bar in Ck

Lout Creek WA June, 20[illegible]

Roll #3 (T3)

Site #1

CAMP Creek - 28½ km on Glen Lake main

P1, 2 - Camp Creek gaging station

S = 3%
W = 2.4m
BM = sand, gravel, cobbles
BL = cobbles, gravel
control = boulders, channel constriction + some LWD
LWD = minor / some control
D = 15cm
d = 0.6m
RIP = Alders - Road within 5m or less of Creek.

RPg

Banks appear stable
- lots of sand deposits.

P3 - Road surface & Camp Creek directly adjacent to Creek
- no evidence of extensive surface erosion
Road surface is sand with Rock underneath.

Site # 3

Trib to Camp @ 25½ km

P3, 4 up/down from Rd.

S = 15-20%
W = 0.7
BM = Angular cobbles, Boulders
BL = cobbles - no evidence of sands
- active cobble bed channel
LWD = none / no control
control = Boulders

- Confluence of Camp & Trib

- confluence = angular cobbles & boulders
Camp Ck. = sands, gravels & cobbles
Banks = appear stable on both Trib & Camp.

Site #2 - 26 1/4 km ~~to~~ Glen Lake Mn.

P4/5 - UP/DOWN

- Rd. crossing culvert
- Double culvert 1000mm X2

P6 - Road Surface

- Sands, rock windrowed
- No evidence of extensive erosion from Rd. Surface.

BM = ~~gra~~ sand/gravel

RIP = 10m+ Alders

LWD = some/scattered

SWD = some/some small WD dams

P7 = Evidence of overflowing Rd. culvert

- Sand bars

Site #4 Trib. to Camp. 25 1/4 km

- Channel has [illegible]
- cobbles & sands (round)

P10, 11 - looking above Rd.

WF = 0.6

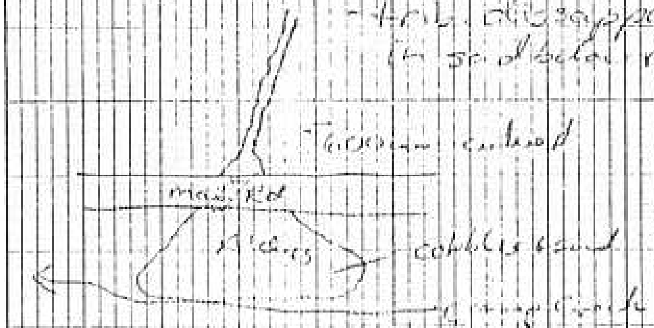
BM = cobbles, sand, very [illegible]

BL = cobbles, sand

LWD = some/[illegible] [illegible]

S = 15%

- ~~Cul~~ Main Rd. appears to be at the head of a fan
- Fan borders a to Camp Creek
  - trib. disappears in soil below rd



Site #5 Upper Road above Glen Lake Main

P12 - site #1

P12 - initiation of debris torrent - water may have run down the rd. & blew out fill on rd.

P13 - Rd. material very sandy - cobble till
- Rd. has been semi-permanently deactivated
- soft sand ~ - cross ditches will require regular maintenance.

P14 - Slide #2 @ 30m from the firstone
Size 15m w x 50m l x 2.0m

Site #7 - Kathleen Mtn. Area

P17 - Rd surfaces in Kathleen Mtn Area
- No evidence of extensive surface erosion

P18, 19 - Trib. from trough. 1989 logging into upper headwall.

- Portions of Rds in this area need to be cross ditched
→ probably best to be cross-ditched @ a high frequency to ensure that natural drainage patterns are retained.

METRIC FIELD

Site #6 - ~~Xp~~ Crossing - Driveable Ford
- P 15, 16

~~Bm~~ RP - Boulder Cobbles

S = 5 %
w = 1.8
Bm = Boulder-cobbles
BL = cobbles

- some small sand deposits (coarse)

LWD = present (moderate) / minor control.

control = Boulders

- no evidence of extensive surface erosion @ Ford

Rd. up to this point is sand-cobble
- cross-ditches
- some evidence of surface erosion on Rd. ...
~~present~~ very few / no drainage ~~[illegible]~~ by road.
∴ S.E. is probably not going anywhere.

METRIC FIELD

Site #8

P20, 21 up/down

W = 1.5 cascade-pool
S = 3.5 %
Bm = boulders, cobbles, some sand
BL = cobbles, gravel

LWD = none
control = Boulders

- surface erosion present in cross-ditches
~~se~~ ... road [illegible] creek.
- but does not appear to be entering the creek.

Site #9

P 22, 23

P24 Banks

S = 9% step-pool
W = 1.7
BM = Boulders, cobbles, sand active bed.
BL = Cobbles, gravel
LWD - some/minor
control = boulders
D = 25cm
d = 1.2m

- stream appears to have [illegible] in past
→ evidence of old levees. (approx. 15 [illegible] old)

P24 Banks - appear stable
- channel has incised may be due to [illegible]

* possible peak flow [illegible] [illegible] currently appears to be recovery stage.

P25 - old levee next to channel 2.54m from channel.

Site #10 Chapman Creek @ Glentoh mn.

P 4, 5 up/down

S = 8%
W = 1.0
D = 30cm
d = 1.0m
BL - cobbles, gravel, boulders (25 to 35cm)
BM - cobbles, boulders, sand
LWD = none

- only active channel [illegible] have been [illegible] due to [illegible] of boulders/cobbles

* What is ECM above this point & above site #9.

- Recent bank scour
- flow appears to reached just below bank full (i.e 0.9m)

* P6 Chapman Creek [illegible] old [illegible] pond swamp

→ Note sediment from - gravels and sand.

Fish in swamp 15cm

Roll #4

P1 Upstream of Trib. confluence
— note sand in bed

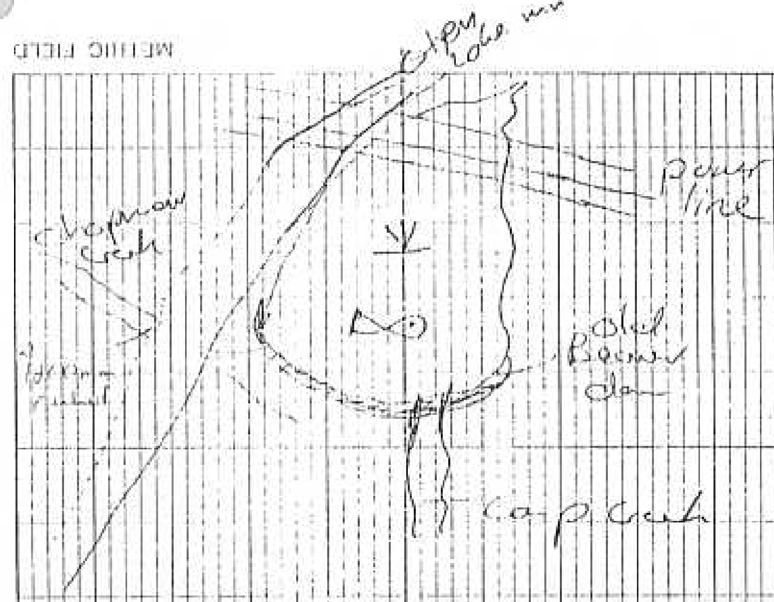
P2 - confluence of Camp Ck. + Trib

Trib is very active channel
→ hoe has cleaned Bed material from culverts

P3 → large piles of boulders, cobbles & gravel.

Banks appear mossy on Trib. now

* possible peak flow ...



→ sufficient material around creek = tills - cobble, boulders sand gravel

Site #11

P7, 8

- surface erosion in ditch
  - sand
- Road surface does not look extensively eroded
- sand must of came from ditch line (P9)

P10 - looking South from Powerline on backside of Upper Chap Creek
- w/s directly above the Trout Creek Road.

Upper Chapman Creek

P11 * ECA appears to be 50%+ above Site #10 + #9?

→ Panoramic - Portion of Upper Chapman

- Several Rds not deactivated
  → need to Restore natural drainage patterns ~~for~~ snowmelt freshet.

Trout Creek Day #3 — June 1/96

Roll # ~~4~~ B

~~P-14~~

Site #1 Trout Creek @ Lost Chain Main crossing

P14 - lost Chain Confluence just below.

P14, 15 up/down

W = ±10 m
S = 2%
D = 20 cm
d = 1.2 m
BM = Boulders (rip-rap like)
BL = ~~Boul~~ ~~[illegible]~~ B, C
Bed B, C, G, S
LWD = none
control = gradient

RFP = conifer + willow ± 30+ yrs.

~~no [illegible]~~ - some sand bars above bank Cr. Cl.

P16 Road surface on Lost Mn. directly adjacent to Tr. + Cr.

P17 - Ditch line ~~[illegible]~~ [illegible] [illegible]
[illegible]
[illegible]

METRIC FIELD

P12 - East side of Upper Camp Creek (Panorama)

P13 - Road under powerline
No cross ditches or waterbars

METRIC FIELD

Site # 2

P19 - S.F. @ Trib #2 Lost Chair Creek

P20/21 ~~upstream~~ Eroded Trib #2

W = 0.8
S = 4%
D = 5cm
d = 0.6
Upper gravel, sands
SLH sand, gravel
LWD = Present
intermediate / control

Control = Roots, LWD & confinement

× Some ~~[illegible]~~ building of sand bar
Accumulation from Rd. I.E.
→ D ~~[illegible]~~ flushed gravel/e.g. sands / sand filled

P22 - Surface Erosion over WB from Upper Lost Chair

P23 - Ditchline Upper Lost Chair

Site #3 → Upper Trib to Lost ("Big one though")

P24,
W = 2.4m
S = 5
D = 5cm
d = ~~0.6m~~ ~~60cm~~ 70cm

BM = sand, gravel
BL = sand, gravel, cobble

LWD = abundant / not in channel
suspended
RIP = mature conifers.
control = Boulders
Banks = stable
* ~~SE~~ Rd is 50m away - evidence of S.E. plume reaching Creek from Rd

T5 - Roll #5

P1 = Rd. Surface 50m above Trib.

P2 = Upper lost Chain
S.E. from Road
→ Rd. S.E. is extensive
low rating should be modified to high.

"site" P6,7 up/down
Upper Bull Creek

W = 1.8
S = 7%
D = 20cm mossy rocks
d = 55cm
BM = B, g, S, C

BL = C, S
RIP = mature Conifers.
LWD = some / suspended

control = Boulders

* banks appear stable

→ Surface erosion is not a major concern rds

P8 - Typical Rd Surface in Bull Creek S/b
+ Bear Paw
* NO major S.E

METRIC FIELD

Site #4 P3, 4

Lower Cost

W = 2m

S = 5%

D = 20cm

d = 60cm

BM = B, C, g, s

BL = C, g, s

LWD = none

control = boulders

no evidence of instability
- some ~~sand bar~~ small sand deposits

P5 = Trout Creek Bank
→ no evidence of extensive scour.

METRIC FIELD

Site #6 = Bull Creek

P9 - 1

W = 3m

T = 3

D = 25

d = 30

LWD = some / some small LWD jams

RIP - mature conifers

Control - Boulders.

P10 - [illegible] Cr. (S) [illegible] view
→ Below Dam

F.G. FENHALL LTD. MADE IN VANCOUVER CANADA DURABLE WATERPROOF

Site # 3 Darke Crk. below
→ Darke Lake on m... Road

S = 2%
W = ~~3~~ 2.6m
D = 15cm
d = 40cm
LWD = none
RIP = Alders, u-shaped creek bed

BM = cobbles, gravel, moss covered

BL = cobbles, gravels.

→ On map creek disappears below ground.

(P)7 = Drainage canal on Farm land
→ Duck weed in channel
→ marshy valley

(R)8 Lower Darke Creek
→ Intermittent into hills
evidence of erosion in channel during freshet.
→ houses built in floodplain + highwater areas.

July 3

Site # 1 Darke Creek S/B

P1 Daniels Crk. R6

S = 3%
BW = 1.0
D = ~~30cm~~ 20/cm
d = 0.7m
BM = cobbles, boulders, sand
LWD = none

- small IUF Stream

(P)2 ... climber roads

- climber roads in Prov. park have extensive erosion from water flowing down them
- Farm

S.

Site #[illegible] Lower Trout @ Darke Lake
& Trt. mn Junc.

@ 910

S = 2%
W = 10m
D = 50cm +
d = 2.0m
LWD = none
control – Boulders

Banks appear stable

Trout Creek – Lower W/S below
Thirsk Lake

Confined bedrock canyon.

→ floodplains alternate with channel
confinement through valley
Sand bars were [illegible] confinement widens
→ channel very similar to Site #4
above from lost Crk down to
Darke Creek

Site # 2 Darke Creek above
N.Y. Darke Lake

S = 6-7%
BW = ~~[illegible]~~ 2.1
D = 35cm
d = 60cm
LWD = none / some SWD
RIP = Deciduous [illegible]
old logging = 1750, 1760?
BL = cobble, boulder
BM = cobbles / sand, boulders
control = Boulders

* appears to be active
Boulders moving

@ 5 – ~~[illegible]~~ S.F. on FSR above
[illegible] Darke Lake

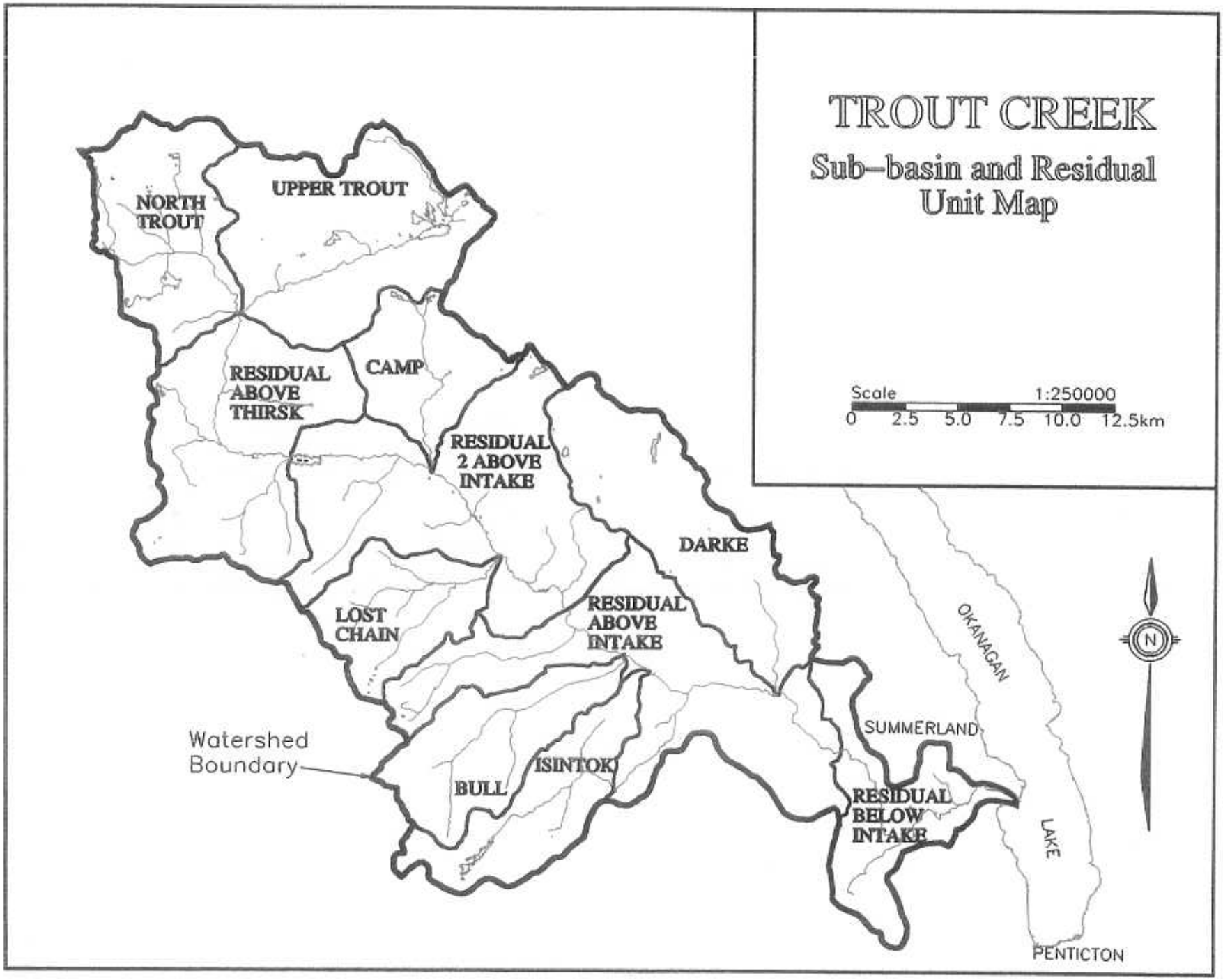
P11 - Trout Creek @ Okanagan Lake

→ Trt Crk has been confined & channelized with Dykes.

- Sand deposits @ mouth of creek.

APPENDIX F

Watershed Unit Key Map
and
1:20,000 Maps


TROUT CREEK
Sub–basin and Residual Unit Map
Scale 1:250000
0 2.5 5.0 7.5 10.0 12.5km
NORTH TROUT
UPPER TROUT
RESIDUAL ABOVE THIRSK
CAMP
RESIDUAL 2 ABOVE INTAKE
DARKE
LOST CHAIN
RESIDUAL ABOVE INTAKE
OKANAGAN
LAKE
N
SUMMERLAND
Watershed Boundary
BULL
ISINTOK
RESIDUAL BELOW INTAKE
PENTICTON