

# **Whitewater Stream Inventory (2002) of “Sea to Sky” Squamish Forest District, British Columbia**

FINAL PROJECT REPORT  
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## EXECUTIVE SUMMARY

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The purpose of this initiative was to collect, critically evaluate, and present information describing whitewater paddling use of the streams and rivers in the Squamish Forest District, a one million hectare administrative area which encompasses the mainstems and tributaries of the Squamish, Lillooet, and Indian Rivers. The resort municipality of Whistler represents more or less the geographic center of this near-coastal area, the central portion of which (along Highway 99) is widely referred to as the Sea to Sky Corridor. The term “whitewater paddling” is used in this report to include recreational activity in whitewater canoes and/or inflatable rafts, although the use of plastic whitewater kayaks is the predominant means of descending the typically steeper creeks in this mountainous area.

The main product of this initiative is a spatial database of navigable streams that are valued for recreational paddling use. Information presented in this database indicates current and potential future levels of paddling use on each stream. Secondary to this focus on whitewater paddling activities, the inventory also identifies for each of the inventoried streams the extent and locations of other known river-based and recreation-oriented activities including fishing, nature viewing, commercial river recreation operations, and film industry location use for river stunts and scenery. All of the above-described information may be used by the government in assessing “micro-hydro” development applications from Independent Power Producers (IPP’s), and more generally to support land and resource planning and management (i.e. Sea to Sky LRMP) in the region.

The Geographic Information System (GIS) product developed for decision support use by the provincial government is a stand-alone to this report and was submitted separately. This report contains neither mapping in digital or hardcopy form, nor complete sets of GIS attribute data in raw or summary form. This report has three main components. They are:

- 1) An outline and detail of the methods used to produce, collect, compile, and present the inventory data, including a description of GIS attribute fields and coding used in the database;
- 2) A synoptic summary of inventory results which broadly characterizes whitewater paddling opportunities and use (and related activities) in the project area; and
- 3) Summaries of select attribute data, with sources identified (appendices to report).

In summary, a total of 100 different whitewater paddling runs, varying in length from 150 metres (waterfall drops-only “runs”) to about 40 kilometers (overnight trips), were identified throughout the Squamish Forest District. These sections of 46 different streams and rivers in the area were identified as being of recreational interest and navigable by raft, canoe, and/or kayak. Many of these waterways support a variety of public and commercial recreation uses. However, the runs that appear to be valued most specifically by the whitewater paddling community are those with (among other characteristics) average stream gradient of between approximately 1.5 % (80 feet/mile) and 6 % (over 300 feet/mile) sustained over a section of stream that is typically from 2 to 10 kilometres in length.

Surveyed members of the regional and international whitewater paddling community were near-unanimous in identifying several “stand-outs” among the many quality whitewater streams included in this inventory. These exceptional runs, which reportedly see several hundred and in some cases likely more than a thousand descents per year, are upper Cheakamus River (in the Whistler Interpretive Forest area), Callaghan Creek, Rutherford Creek, Ashlu Creek, Elaho River (canyon section 10 km upstream of Squamish River), and Ryan River. Other runs were reported to have comparable levels of use but were less highly valued by survey respondents (n<65), while still others were comparably valued but were run less often and/or they were run by a smaller group of paddlers.

## **ACKNOWLEDGMENTS**

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Many individuals and organizations contributed time and information to this project, as reflected in the appendices to this report. In particular, the author wishes to acknowledge the contributions of the following:

- Stuart Smith and Headwaters Press Ltd., for contributing baseline inventory data
- Whitewater Kayaking Association of British Columbia, for helping “get the word out there”
- Members of Whistler Kayak Club, for participating in meetings and paddler surveys
- Members of Squamish Whitewater Paddlers, for participating in meetings and surveys
- Other members of the broader paddling community, in the BC lower mainland and internationally, for participating in paddler surveys and interviews
- Mark Wittenberg, for data collection and report contributions
- Participants in the whitewater “expert knowledge focus group” session:  
Corey Boux, Don Butler, Nic Butler, Dave Reid, Stuart Smith, Steve Whittall, and LJ Wilson
- Chris McDougall, GIS specialist (Cascade Environmental Resource Group Ltd.)
- Robert Gowan, Project Manager, BC Ministry of Sustainable Resource Management (Decision Support Services Branch)

## **DISCLAIMER**

This inventory report and associated spatial database are intended for use solely by the Province of British Columbia in support of land and resource planning and management activities. Whitewater inventory information and mapping should not be misconstrued by any individuals or organizations to represent a “guide” to the region’s whitewater paddling opportunities. There are many risks inherent to the activities described in this project material, but none of those risks are herein identified or detailed.

The author of this report, contributors to this report, Confluence Environmental Consulting, and the Province of British Columbia individually and collectively accept no responsibility for any unintended use of this inventory report, database and mapping by unauthorized third parties.

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### SPATIAL DATABASE

Inventory results presented in ArcInfo GIS spatial database submitted separate from this report.

## **INTRODUCTION**

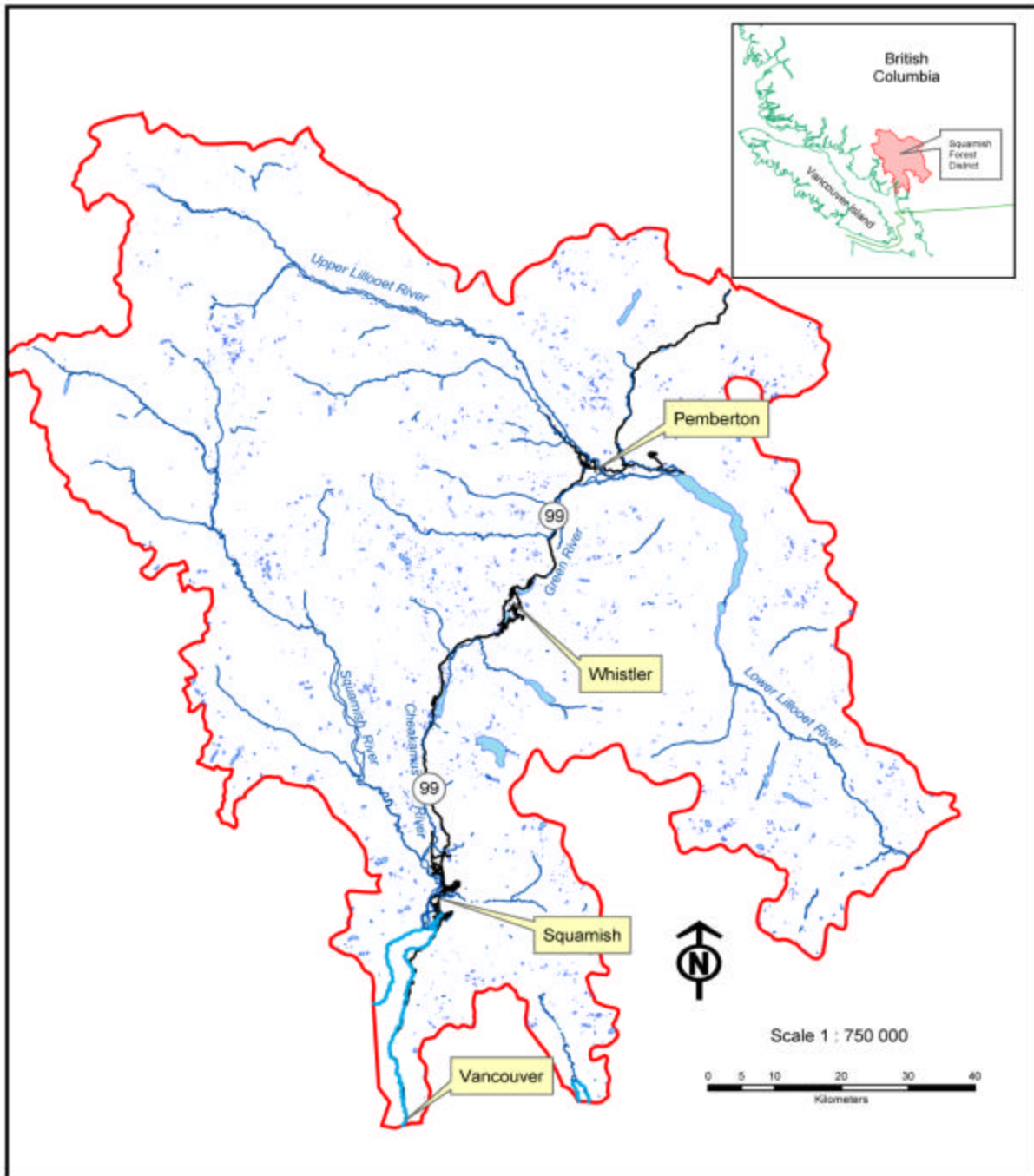
Confluence Environmental Consulting of Whistler produced this whitewater stream inventory for the provincial Ministry of Sustainable Resource Management in March 2002. Until this time, no information on recreational river use was available to the government for consideration when making land and water use resource management decisions such as where to locate small-scale hydroelectric projects. Increasingly in recent years and months, numerous Independent Power Producers (IPP's) have made development applications to the provincial government which have generated interest by various organizations and agencies including Fisheries & Oceans Canada and the Canadian Coast Guard. Discussions relating to navigability and alternative uses of the many creeks and rivers being contemplated for IPP development led to the realization that an inventory was required to inform the government review and assessment of IPP applications. Such an inventory also would contribute valuable information to be used in the development of land and resource management planning (LRMP) objectives for the Sea to Sky LRMP currently underway.

The contract terms of reference required the production of an inventory in the form of a spatial database identifying which streams in the Squamish Forest District have existing whitewater recreation use, and also describing seasons of use, levels of use, and potential (future) levels of use. In the absence of better means to accurately determine current use levels and to project future use levels, the inventory was to rely on the use of descriptive data and expert knowledge collected from identified sources, the paddling community, the general public and any available guidebook materials. Also, the terms of reference required that available information be collected which described other recreation-oriented and related uses of those streams included in this inventory, namely sport fishing use and commercial river recreation operations.

The project area encompasses the whole of the Squamish Forest District, an administrative area 1.1 million hectares (11,000 km<sup>2</sup>) in size, which is drained to the south both by the Squamish River system and (less directly south) by the Lillooet River system (Fig.1). The resort Municipality of Whistler is located at the drainage divide between these two major rivers, and it represents more or less the geographic center of the project area. (The snowpack from Whistler Mountain's south and west aspects drains directly to tidewater at Squamish, while Whistler's north side and Blackcomb Mountain drain via the Lillooet River and eventually the Fraser River to the ocean). Much of Garibaldi Provincial Park (2,000 km<sup>2</sup>) also drains on three sides within forest district boundaries to both river systems. The southernmost extent of the project area is drained by the Indian River into Indian Arm and Burrard Inlet, and by steeper creeks west into Howe Sound.

While this rugged and glacier-capped terrain may be best known for its winter sports, primarily skiing and perhaps secondarily mountain snowmobiling, it is becoming increasingly known for its other seasons and associated recreational opportunities. Rock climbing, mountain biking, and whitewater sports probably are the other most common outdoor pursuits for which this landscape naturally and most abundantly provides during the rest of the year (or potentially all months of the year for the latter two pursuits, depending on elevation and proximity to the ocean). Area

**Figure 1: Location Map of the Project Area**



creeks and rivers provide varied opportunities for nature viewing, fishing, rafting, jet boating, canoeing, and kayaking, all as reflected in this inventory. However, this inventory is primarily concerned with identifying and characterizing specifically *whitewater recreation* uses of the different waterways, with other activities considered secondary to this main focus. Whitewater is the result of different physical features, characteristics, and processes including streamflow, stream gradient, bed roughness, and channel confinement. While certain sections of streams and rivers included in this inventory may be better described as “slow green water” during most of the year, nonetheless they are included due to their suitability for novice whitewater enthusiasts, and to reflect a fuller spectrum of recreation opportunity and river experience. (An example of such a “Grade One” stream would be Alta Creek, otherwise known in Whistler as the River of Golden Dreams, which sees a significant amount of canoe traffic in particular during summer months). The term “whitewater paddling” is used broadly to include recreational activity in whitewater canoes and/or inflatable rafts, although it should be noted that kayaking is the predominant means of descending the typically steeper creeks in this area.

Since the “early days” of local kayaking (mid-1970’s), when local and visiting pioneers of whitewater sport paddled long fibreglass boats through moderate rapids and slalom gates used for national team training and competitions on the Cheakamus River, the sport has gone through a steady transformation. More recently - in the past decade or so – the sport of whitewater paddling has virtually exploded in popularity. And while certain regions in Europe, the USA, and (most recently) Central and South America have been the established “hot spots” for whitewater activity, lately more attention has been directed to our part of the world. The creeks and rivers in this region provide for a wide diversity of recreation experience, varying from overnight trips on spectacularly scenic coastal rivers, to remote-feeling but easily accessible gorges choked with technically challenging rapids and waterfalls. Further, Sea to Sky is becoming recognized particularly within the paddling communities of the Pacific Northwest and southern USA as a region with a relatively rare blessing: abundant water in summer months draining from the large winter snowpack and many glaciers. And finally, coinciding with a transformation in the sport involving improved equipment and specialized boat designs, combined with a know-no-boundaries spirit of exploration, there is a growing number of paddlers looking for new and exhilarating challenges – and many of them reportedly have found those challenges and experiences here. Recent whitewater videos, magazine features, the author’s personal experience, and responses to the survey distributed during this inventory project indicate that Sea to Sky country has among other things some of the best “steep creeking” in the world.

The inventory described in this report identifies all known navigable streams located within the Squamish Forest District considered to be of interest to the regional and international whitewater paddling community, and catalogs them in a spatial database. (The digital mapping product is a stand-alone to this report and was submitted separately; this report contains neither mapping in digital or hardcopy form, nor complete sets of GIS attribute data in raw or summary form). As indicated in *Table 1* (following), 46 different rivers and creeks are identified in the inventory. Of these, kayak descents (on one or more distinct stream sections, or runs) have been made of all but one creek included in the inventory. A first descent of that creek likely is imminent. The inventory indicates use levels and contains other related data for a total of 100 distinct runs.

**Table 1: Squamish Forest District rivers and creeks with whitewater paddling use**

<b>Squamish River, and tributaries:</b>		
Mamquam River	Mashiter Creek	Ring Creek
Raffuse Creek	Skookum Creek	Crawford Creek
Cheakamus River	Cheekeye River	Culliton Creek
Rubble Creek	Brandywine Creek	Callaghan Creek
Ashlu Creek	Elaho River	Sims Creek
Clendenning Creek		
<b>Lillooet River, and tributaries:</b>		
Douglas Creek	Sloquet Creek	Fire Creek
Gowan Creek	Snowcap Creek	Rogers Creek
Tuwasus Creek	Billygoat Creek	Ure Creek
Joffre Creek	Birkenhead River	Owl Creek
Green River	Rutherford Creek	Soo River
Fitzsimmons Creek	Alta Creek (River of G D)	21 Mile Creek
Ryan River	North Creek	South Creek
Meager Creek	Pebble (Boulder) Creek	
<b>Indian River, and tributary:</b>		
Meslillooet Creek		
<b>Draining into Howe Sound:</b>		
Stawamus River	Furry Creek	Britannia Creek



The 100 different whitewater paddling runs identified in this inventory typically are 2 to 10 kilometer long sections of streams varying in size from small (2<sup>nd</sup> order at 1:50,000 scale) creeks less than 20 meters channel width in places, to large (6<sup>th</sup> order) rivers greater than 100 meters width. The shortest run identified is significantly less than 1 km in length, while the longest run is over 40 km in length. Average stream gradients calculated across the length of these whitewater runs vary between approximately 1% and 6%. Each run is distinguished in the inventory by specific river access and egress points, and by an assessed overall “grade” or degree of commitment and paddling ability needed to navigate the rapids on that run, akin to the distinction between different runs made in a whitewater paddling guidebook.

## **METHODS**

### **Base mapping and GIS presentation**

The Geographic Information System (GIS) base used for this project was seamless 1:20,000 scale TRIM (BC Albers projection, NAD 83 Datum) provided by the provincial government in Arc Interchange File (.e00) format. Hydrology, transport, contours, and annotation coverages for the project area were supplied, as was a coverage representing the boundary of the Squamish Forest District. Universal Transverse Mercator (UTM) co-ordinates representing put-in and take-out points were imported from a Microsoft Excel spreadsheet into a Microsoft Access database and then linked to point coverage in ArcInfo GIS. A new arc coverage (WW\_riv\_runs) was then created by digitizing lines between put-in and take-out (i.e. river access and egress) points along each whitewater run. The resulting ArcInfo coverage (WW-riv\_runs) contains an inventory of 100 distinct whitewater paddling runs in the district tied to BC government TRIM data.

Attribute data generated during this project was added to the Arc Attribute Table (AAT) of the WW\_riv\_runs coverage by joining it with a Microsoft Access database of fields containing information about each whitewater run. The Microsoft Access table and ArcInfo coverage were joined by a common attribute (River ID Number).

*Appendix 1* contains a complete list of all attribute fields (with coding explanations) produced for the purpose of this inventory.

### **Data Collection**

Four basic types of data were collected for this inventory:

- 1) geographic data, the foundational elements of a spatial database;
- 2) descriptive data concerned with the observable characteristics of each whitewater run;
- 3) other data describing the reported location and timing of recreation uses for each run; and
- 4) qualitative data reflecting individual value judgements concerning recreation features and experiences.

Personnel with some training and field experience in natural resources-related work are required to collect the first data set, which is straightforward. The quality of the second data set depends much more on the assessor’s whitewater paddling and field experience, and level of familiarity

with the international whitewater classification system. The remaining data sets require local knowledge, familiarity with the sport of whitewater paddling, and interaction with members of the paddling community to most effectively collect the required data and glean information through meetings, interviews, and surveys. Further detail on the collection and use of these data sets is presented below.

Prior to setting out to collect raw data, efforts were made to first collect and review any pertinent existing information. The BC Forest Service traditionally has been responsible for managing outdoor recreation for approximately 85 per cent of the provincial landbase. A search of both government and industry resources indicated that no geographic or descriptive information concerning whitewater recreation activities was currently available. Recreation inventory information for the Squamish Forest District provided on request by the BC Forest Service did not include any information for inventory themes related to river recreation activities or features. The complete lack of river recreation inventory data collected during previous district-wide recreation inventory projects (1992, 1995) and analyses (1996) is reflected in current Forest Development Plans prepared by major forest licensees operating in the district (e.g. see Howe 2002, Turner 2002).

The only available whitewater paddling guidebook for the project area was published 15 years ago and it identified a total of only 8 different runs in *Sea to Sky* (Pratt-Johnson, 1986). All but one of the whitewater runs in that guidebook are Grade One to Grade Three (i.e. easy to medium difficulty) rivers, which would hardly constitute baseline information for this inventory.

However, information from the manuscript of an as yet unpublished guidebook from Headwaters Press was made available for this project. This manuscript represents the third in a series of BC whitewater guidebooks from Headwaters Press, the first two of which (covering central and southern Canadian Rockies) are widely used within the provincial and international paddling community. Guidebook author Stuart Smith recently has completed field reconnaissance and collection of baseline data (e.g. information pertaining to location, access, river features, regional hydrography, and whitewater classification) done over a period of several years in preparation of this guidebook for the coastal region of BC including *Sea to Sky*. His making a portion of this data available for use as inventory baseline was extremely opportune, given that a tight government schedule, the mid-winter timing of this project, and uncharacteristically cold and dry weather during the project period (February and March 2002) limited any meaningful field investigations done specifically for the inventory.

Geographic data, specifically the river access put-in and take-out locations for each whitewater paddling run identified in this inventory, was for the most part contributed to this project by S.Smith. As was made reference to in the previous section, UTM coordinates were noted in the field using 1:50,000 National Topographic Series (NTS) maps. (Spatial corrections were made during the GIS mapping phase to re-project the coordinates from NAD 27 datum to NAD 83). Additional geographic data was generated by E.Askey using NTS mapping and field visits.

S.Smith also provided descriptive data concerned with the observable characteristics (i.e. data relating to flow source, paddling season, and whitewater classification) for all but one of the

identified whitewater paddling runs. E.Askey provided that same information for Alta Creek, which was added to the inventory midway through the project. Whitewater classification was performed using the international whitewater classification system, and extended by S.Smith to assign an overall “Grade” to each run. More detail on whitewater classification and grading are provided below under the heading of *Data Synthesis* and in *Appendix 7*.

Information describing the nature and location of other river-related and generally recreation-oriented activities was collected through research and interviews done by Confluence personnel, as detailed by source in *Appendix 2*. A public open house meeting advertised in regional weekly newspapers and held on the afternoon and evening of Tuesday, March 19, at the Squamish Public Library stimulated the interest of about a dozen people. However, no significant input (e.g. indications of any previously unidentified recreation uses of regional waterways) was received for inclusion in the inventory database (see *Appendix 2-E*).

Finally, qualitative data was collected through the use of different survey instruments developed and distributed by Confluence personnel by email, fax, website (downloadable), and in person. Confluence hosted meetings with members of the paddling community based both in Squamish (“Squamish Whitewater Paddlers”), and in Whistler (the more loosely knit “Whistler Kayak Club”, which includes paddlers in Pemberton, Bralorne, and in other smaller communities in the project area), to inform them of the inventory project underway and solicit their input at an early phase of the project. By early March, in the interest of generating better response to the survey, Confluence also co-sponsored several whitewater paddling video premiere events that brought paddlers “out of the woodwork” of winter (estimated 20 – 80 paddlers per event) in Whistler, Squamish, and Vancouver. The Whitewater Kayaking Association of BC (WKABC) assisted in helping to contact an even wider group of paddlers by publishing in their newsletter and posting to their website information concerning the inventory project, and how paddlers could review maps and provide input to the project at the video premiere events and open house. A digital survey questionnaire was available for download from the WKABC website.

These survey questionnaires distributed to regional paddlers (see *Appendix 3*) asked respondents where in the Squamish Forest District they paddled, when they paddled, and how they allocated their annual paddling time between different runs. Equally important for inventory purposes, the surveys were designed with a second main purpose of eliciting responses from paddlers concerning the whitewater experiences and river features they valued most in the project area. Finally, the surveys requested information that would enable some degree of profiling of the respondent (e.g. age, experience paddling, level of paddling capability, etc), so as to potentially yield additional insight into the value judgements reported by the individuals. Note that responses to the question “How would you grade the run (I-VI)?” were not used for river grading purposes; rather these responses were intended and used to help verify which particular run (of more than one possible run per river) was being reported on, given the potential for confusion.

The “international touring/pro paddler” survey instrument (see *Appendix 4*) differed significantly from the questionnaire distributed to regional paddlers. The list of 12 questions was designed to elicit a non-local paddler perspective on the different dimensions and overall quality of a whitewater paddling experience in the Sea to Sky area. The survey was intended for distribution

to as many so-called “world class” paddlers as possible, in hopes that these individuals might have and might share any particular insights into the leading edge of the sport, and into the possible attributes of this region which could distinguish it internationally. A list of top international paddlers (for example, individuals with standings in whitewater rodeo/freestyle World Championships, or other recognition) was generated by: 1) contacting the major kayak and equipment manufacturers and requesting contact information for their sponsored paddlers; 2) searching the WEB sites of the various sponsored “teams” (i.e. Team Perception, Team Dagger, Team Liquidlogic, Team Wavesport, Team Necky, Team Riot); and 3) by posting the survey on Boatertalk.com, a popular forum on the internet dedicated to whitewater sport.

A total of approximately 100 survey questionnaires were sent to paddlers in the USA, Canada, Europe and UK. Selections from the 13 surveys returned (presented in full in *Appendix 5*) appear in the *Results Synopsis* section of this report, below. Many of the team leaders and manufacturers had indicated their team paddlers were either on paddling tours or expeditions abroad, or otherwise preoccupied, limiting their ability to participate in the survey at this time of year.

For the record it should be noted that in many cases a distinction made between “regional” and “international touring/pro” paddlers might be misleading. A number of paddlers based in the communities of Squamish, Whistler, and Vancouver travel extensively and periodically over-winter in Central American paddling “hot spots”, for example, giving them some international perspective with which to assess paddling opportunities in their own home region. Certain locals are considered to be top calibre athletes and professional paddlers, sponsored by equipment manufacturers to pursue their chosen sport through international competition and/or by way of paddling/filming tours of countries like Norway and New Zealand. Local paddlers’ faces and names are sometimes recognizable in leading US whitewater magazines and videos. Nonetheless, the distinction was made to capture what are expected to be significantly different perspectives from paddlers who live far away from this region. And practically speaking, the international paddlers were not expected to be able to complete the regional paddler survey questionnaire in as detailed or meaningful a way as local paddlers, by virtue of the fact that their paddling days in the region likely are much more limited.

Finally, attempts were made to collect data describing trends in the sport of whitewater paddling over recent years and decades. As one possible measure of growth of the sport, information describing average percentage growth in whitewater kayak sales over the past ten years was requested from executive officers and sales representatives of the major kayak manufacturers in North America (see *Appendix 6* for organizations and individuals contacted). Trade journals such as were reviewed for reports on trends in whitewater boating sales and participation.

In summary, many means were employed to collect various data and generate meaningful information for the purpose of this whitewater stream inventory. Any resource inventory project normally involves the systematic application of a set of procedures designed to collect data in the field and/or by other means and from various other sources, with the aim of drawing from all available sources of information to best describe a current state of affairs or account of resources. Such was the case in this project. However, consistent with the terms of reference and direction provided for this project, the procedures used to collect, organize, evaluate, and report data

describing whitewater recreation use in the project area did not conform with the draft standards and procedures for Recreation Resource Inventory published by the BC Resources Inventory Committee (RIC 2002). With the exception of the whitewater classification component, the elements or “themes” of that recreation inventory system do not appropriately fit with aims of the present project. The criteria and definitions used in Recreation Features Inventory (RFI) and River Experience Class (REX) initiatives, and in fact the whole general approach to and product of these initiatives, in the opinion of the author fall short of the information needs of government in making most resource management decisions in the Squamish Forest District. In any case, neither RFI nor REX were applied in this project. Consequently, “river zones” (REX line data) were not established for subsequent application with whitewater classification. Whitewater classification was performed more or less consistent with RIC procedures.

## **Data Synthesis and Evaluation**

Data collected from various sources was either compiled in summaries (see *Appendix 2*) and then used to generate simple text or numeric attribute data for entry in the Arc Attribute Table database, or it was processed by way of simple statistics (i.e. sum, mean) or otherwise critically evaluated before being used to generate attribute data. This section provides a brief overview of the approach, assumptions, procedures, and/or methods employed for the data synthesis and evaluation phases of this project, where such explanation is deemed warranted. Refer to *Appendix 1* for a complete list of the GIS attribute field codes and explanations.

### ***Whitewater paddling runs***

The sections of rivers identified in this inventory as distinct “runs” generally are consistent with a guidebook for the region due to be published by Headwaters Press later in 2002. While some of the identified runs may not be best described as “whitewater”, they may be included in this inventory to acknowledge significant known or potential rafting and/or canoeing use of these runs, or to reflect a spectrum of whitewater paddling user groups and experiences including novice paddlers and scenic float experiences where less emphasis is placed on whitewater *per se*.

### ***Grade***

River grading applied in this inventory was performed by S.Smith in a manner consistent with his series of guidebooks which are widely used in western Canada and could be said to represent the “standard”, and which are generally consistent with the International Canoe Federation grading system. Utilizing the river classification system (see below, and for more detail see *Appendix 7*), a grade was assigned to each whitewater run as an indication of the overall level of difficulty for the entire section of river between put-in and take-out. The grade of the run reflects the different classes of rapids along the run’s length, and it provides an indication of the degree of commitment and ability required of the paddler (based on kayaking). For example, a run featuring a series of Class III rapids and one Class V rapid may be identified as Grade III provided there is a reasonable opportunity for paddlers to portage the more difficult rapid. This grading system is similar to the “dominant whitewater class” for each “river zone”, as per BC Resource Inventory Committee (RIC) procedures for whitewater classification.

## **Class**

River classification applied in this inventory also was performed by S.Smith, as per above. A class rating is applied to distinct sets of rapids to reflect the technical difficulty involved in negotiating each rapid or short section of river. This difficulty rating is normally expressed as a range of values to reflect the varying levels of difficulty of rapids a paddler should expect to encounter at different points along the run and under varying flow conditions. The river classification system is presented in more detail in *Appendix 7*.

## **Season**

Season of paddling use information was provided by S.Smith, based on stream-specific experience and understanding of the regional hydrograph. A range of months of the year (i.e. start of season – end of season) that paddling may occur on the run is indicated. However, paddling may not always be possible or desirable for all paddlers during all months indicated in this range, primarily due to fluctuations in water level associated with annual and seasonal climatic conditions. No formal account was taken of season of use information provided by survey respondents, as they were asked “what months do you run it typically?”.

## **Significance**

The “significance” rating was based on survey response input to indicate which runs are of high importance to the whitewater paddling community. The 3 possible ratings are: 1) no known significance; 2) some significance; and 3) special significance/high importance. The assessment procedure was as follows.

First, runs with “frequent” use (methods and criteria used to derive USE attribute data are detailed below) were automatically identified as having “special significance”.

Next, other means were devised and applied to identify runs considered being of high importance to the paddling community despite their reported “infrequent” use levels. (There are potentially many explanations for reported low use levels on a given run, including lack of available data that accurately describes actual use, or currently low use due to lack of awareness of the runs, access impediments, etc.). The assessment made use of qualitative information elicited from surveyed members of the paddling community. Survey respondents had been asked to give an “overall whitewater quality” rating (1-5) for each run, with a rating of 5 representing highest quality. The majority of respondents provided this rating; responses (n= 1< 50) were tallied and a mean was derived. Runs scoring an average whitewater quality rating *higher than 3* (i.e. average 3.1 and up) - or in other words, runs considered by paddlers to be on the high side of average in terms of overall whitewater quality - were assessed as “special significance/high importance”.

No runs identified in this inventory were assessed as being of “no known significance”; by default, all identified runs are considered to be of at least “some significance” to the whitewater paddling community due to their known navigability. Streams not specifically identified in this inventory default to unclassified status, which means that they are currently of no known significance to the paddling community. (Project timing and budget constraints would not allow

for any additional ground or aerial reconnaissance, or otherwise expanded scope of work aimed at potentially reducing the number of unclassified streams).

*Note 1:* Average scores for “overall whitewater quality rating” were calculated following survey data collection, compilation and analysis; they were subsequently entered manually into the MS Excel – AAT “Quality 2” attribute field. All raw data and calculations are on file.

*Note 2:* Two runs identified in the inventory have not yet been paddled although they have been scouted and likely will be run in the near future. Given the lack of use to date on these runs, and consequently the lack of survey response input for “overall whitewater quality rating”, by default the runs were assessed as “some significance”.

## Use

The indication of “use” for each whitewater run was based on survey response input from the regional whitewater paddling community. The 3 possible indications of use are as follows: 1) scouted but not currently paddled; 2) infrequent use; and 3) frequent use. For the purpose of this inventory, “frequent use” was defined as more than 100 descents per year.

The approach devised for indicating use levels reflects that paddler use information is very difficult to collect with any kind of accuracy. Given that an unknown percentage of the regional paddling community contributed survey input to this inventory project, the sum of reported user days obviously should be considered to reflect only a percentage of the total paddling use on each run. For this reason, it was felt that an “order of magnitude approach” – an indication of whether *tens* of descents (i.e. <100) were made per year, or *hundreds* - would most usefully distinguish between infrequently and frequently done runs. There was no other particular rationale for defining 100 days as the minimum value for “frequent use”. For what it is worth, this value could be considered as being roughly equivalent to a minimum of daily or semi-daily descents by one party over a concentrated three month paddling window of optimum flow levels.

The survey of regional paddlers asked the question “How often do you do the run? (days/yr)”. Reported days/year use numbers were not always taken at face value; in a couple of cases the assessor made phone calls to verify information that appeared to be inconsistent or implausible. Several survey respondents reported both their recreational paddling days on each run, and also their days spent working as rafting guides and safety kayakers in the employ of commercial operators; these work days were subtracted during the tally. Similarly, commercial rafting client day numbers were not collected for the purposes of this project.

For the purposes of evaluation, total use numbers reported by survey respondents were considered to represent a minimum value. In cases where that minimum value fell somewhere between 50 and 100, qualitative assessment was required to decide on classification as either “infrequent” or “frequent”. River grade, location, accessibility, logistics and other factors were considered in making this judgement. Information supplied by respondents to the international touring/pro paddler survey also was taken into account where applicable.

Finally, it should be noted that indication of use for each run is an attribute which reflects the focus of this inventory specifically on *recreational whitewater paddling* use. There may be significantly higher actual use levels on different streams than reported here, especially streams that are reported to be of less interest to the surveyed paddlers but which may be of significant interest to other recreational or commercial groups. Specific examples might include the lowest run on the Cheakamus River, or the run on Alta Creek (River of Golden Dreams). There are likely several hundred people including both locals and tourists who make float trips on those runs each year, although this use would not be reflected in the whitewater recreation being reported on here.

### **Potential**

The indication of “potential” was based on a combination of survey response input from the regional whitewater paddling community and local experience/expert knowledge information. The 3 possible indications of use are: 1) assessed no potential; 2) potential for more use; and 3) potential for frequent use. Indication of potential was provided only for currently infrequently used runs, consistent with project terms of reference. Definitions applied for “frequent use” and “infrequent use” are consistent with those described above for the “Use” attribute.

A variety of approaches were initially considered and explored to address the issue of potential. All whitewater runs identified in this inventory are considered to have the potential for more use than they do currently, in light of several factors. First, a guidebook for the area with information describing access to and features on each of the runs is due to be released in the near future. On that account alone it is reasonable to expect some increase in use on all runs not currently well known. Second, international survey respondents indicate that there has been an increase in awareness both in the USA and in Britain (and possibly elsewhere in Europe) of the paddling opportunities in British Columbia and specifically in the Squamish-Whistler area. Third, market research indicates that growth in the sport of whitewater paddling has been steady. Accordingly, all indications are that use will increase over time for all runs, and more for some than for others.

The challenging task was to distinguish which runs in particular have the potential for frequent use. This topic was raised at a focus group meeting called in March 2002 to draw on a wider range of local paddling experience and expert knowledge than just the project leader/author. This group agreed that the main factors dictating how much use a given run gets are: 1) overall quality of the whitewater run, basically its “drawing power”, which will be a function of several things such as difficulty and diversity of rapids, the number and characteristics of playspots, aesthetics, special features or attributes, water quality and quantity, etc.; and 2) overall “logistics”, for lack of a better word referring generally to the antithesis of drawing power, which accounts for the time, energy, and planning required to get to the run. Specifically, runs that require fly-in or foot access for a kilometre or more to gain access to the river, or runs involving particularly difficult or numerous portages around persistent accumulated woody debris or impassable river features, would be considered more logistically complex or demanding than other runs. The 7 local paddlers who participated in the “expert knowledge focus group” session had been invited specifically because each of them had reported in their surveys paddling a significantly greater number of runs in the region than other respondents. With contributions from and agreement



among these individuals, each inventoried run was rated for logistics according to a L-M-H rating system where L is the least logistically demanding run.

This rating, and an “average overall whitewater quality” rating (1-5) generated for assessing “Significance” (see *Note 1*, below), were run through the following simple decision matrix as to provide an indication of “Potential”.

Decision matrix for POTENTIAL: shaded area indicates “potential for frequent use”

	QUALITY				
LOGISTICS	1	2	3	4	5
L	1	1	2	2	2
M	1	1	1	2	2
H	1	1	1	1	2

*Note 1:* Average scores for “overall whitewater quality rating” were calculated following survey data collection, compilation and analysis. The resulting values were entered manually into the MS Excel – AAT “Quality 2” attribute field. For the purposes of applying this information to assessment of potential using a simple decision matrix, the values (to one decimal place) were rounded to the nearest whole number, and these new values were subsequently entered manually into the MS Excel – AAT “Quality 1” attribute field.

### **Other Attributes**

Appendices to the inventory report include contact information and summaries of attribute information relating to other river-based and recreation-oriented activities and features which were addressed in this inventory. (Also refer to *Appendix 1* for a complete list of the GIS attribute field codes and explanations). No explanation is required for procedures used to compile and reflect this information in the database. However, it should be noted that the information presented for “other attributes” (i.e. stream uses/activities other than recreational whitewater paddling) is the product of limited investigation, reflecting study limitations relating to the timing, scope, and particular focus of this inventory project.

## RESULTS SYNOPSIS

The results of work undertaken to develop this inventory are presented in the form of a Geographic Information System (GIS) spatial database, submitted digitally in ArcInfo export format along with this report for storage and use in the provincial digital data warehouse. (Mapping is 1:20,000 scale TRIM base, BC Albers projection, NAD83 datum). The large volume of raw and coded attribute data that was produced, collected and compiled for this inventory project is not presented in tabular form within this report. However, appendices to the report include source-specific summaries of select attribute data.

The following sub-sections of this report together provide a brief synoptic summary of information collected during this project, presented so as to broadly characterize the current (and to a lesser extent future) whitewater paddling opportunities in the Squamish Forest District. This summary is followed by discussion of the findings, implications, and limitations of this work.

### Whitewater Paddling Runs

A total of 46 streams and rivers in this area were identified as being of recreational interest and navigable by kayak, canoe, or raft. On these waterways a total of 100 different whitewater paddling runs, ranging in length from 150 metres (waterfall drops-only runs) to about 40 kilometers (overnight trips), were identified throughout the Squamish Forest District. These runs have been assessed using the international river grading system to vary in difficulty from novice Grade One runs to expert Grade Five-plus runs.

### Diversity of Opportunity

The project area provides opportunities for a wide variety of river-based and recreation-oriented activities. It supports commercial river rafting, jet boating, canoeing, kayaking and possibly other forms of river travel. While the activities were not identified during the course of this project, past observations indicate that short-board surfing (believe it or not) and “boogie boarding” also occur on area streams, the former activity at locations where there is a good breaking wave at certain water levels. The latter activity is done recreationally to a limit extent; however, swiftwater rescue courses regularly occur on local streams, and this training (required for commercial river raft guiding certification in BC) often involves a component of rescue and recovery using a boogie board. Two known suitable locations for swiftwater rescue training are the upper Cheakamus and lower Ashlu Creek runs. There was no reported non-commercial rafting use of local whitewater. While private rafting parties likely do make trips locally, this activity is far less prevalent in Canada than it is in the USA. Both recreational fishing and commercial guided fishing (see *Appendices 2-B, 2-C*) are pursued widely throughout the project area both in headwater areas of steep creeks (for resident trout), and downstream at creek mouths and along river mainstems (for migratory trout and Pacific salmon species). An extensive forest road network provides varied opportunities for access along the lengths of most creeks and rivers outside of provincial parks, and several riverside recreation trails and sites (BC Forest Service and user maintained sites) add to the diversity of recreation opportunity and experience throughout the district (Province of BC 1997). Finally, the diversity and scenic splendour of the

area draws a significant amount of attention from the primarily Vancouver-based film industry. Dozens of whitewater rivers and riverside locations have been used (many of them repeatedly) for action sequences featured in commercials and feature films (*Appendix 2-D*). A combination of these scenic values and perhaps more importantly the “steep creeking” aspects of the Sea to Sky paddling experience are featured in several retail whitewater videos (*Appendix 2-A*), a relatively recent phenomenon which apparently has stimulated significant interest by the international paddling community in the Squamish-Whistler area.

## **Commercial River Recreation/Tourism**

Commercial rafting trips occur mostly on the Green, Birkenhead, Squamish, Elaho, and Cheakamus Rivers, and to a lesser extent on the lower Lillooet River. Commercial trips with experienced participants and special provisions have also been made in the past on the upper Cheakamus River, although it has not been observed or reported in recent years, and such observations have not been made on other more challenging rivers in the area. The combined Elaho and Squamish Rivers (or just the latter) provide opportunities for overnight rafting excursions by combining the different runs all the way to Howe Sound, while other sections of rivers represent largely untapped potential for fly-in rafting trips (SVI 1996; Pers comm S.Moir). Commercial rafting trips may currently account for the largest numbers of participants in whitewater sport, by activity type, for the rivers identified above. However, this speculation was not confirmed or explored during the course of this inventory work seeing as the focus was primarily on non-commercial activities and “whitewater paddling” in particular. Commercial jet boating excursions currently are offered on the lower Green (to below Nairn Falls) and Lillooet Rivers. Commercial canoeing excursions (guided and non-guided trips involving canoe rentals) are known to occur on Alta Creek, better known in Whistler as the River of Golden Dreams. Commercial kayak guiding and instruction reportedly occurs throughout the project area on Grade One up to Grade Four rivers, with most instruction occurring in the Squamish area on the lower Mamquam River, and in the Whistler-Pemberton area on the lower Soo River at Highway 99 (Pers comm. D.Butler, P.Jamieson, S.Whittall).

## **Whitewater Paddling Use**

Of the total of 100 different whitewater paddling runs identified throughout the project area, many are known to support a variety of recreation and commercial recreation uses. However, the runs that appear to be valued the most specifically by the whitewater paddling community are those with (among other characteristics) average gradient of between 1.5 % (about 80 feet/mile) and 6 % (over 300 feet/mile). These whitewater paddling runs typically vary in overall difficulty between Grade Two to Grade Five plus.

The greatest reported non-commercial use levels for a single identified run were on upper Cheakamus River, with a total number of reported descents amounting to 831 per year, based only on information reported by the 65 surveyed members of the regional paddling community. That figure represents an average of about a dozen descents per year per surveyed paddler, which makes intuitive sense due to the popularity and accessibility of the run. (The author personally makes more than a dozen descents of this run per year). It is not known what percentage of the broader paddling community was represented by the total number of surveyed paddlers. It would

be reasonable to speculate, however, that actual use levels on this run are currently somewhere between 1000 and 2000 descents per year. Reported use levels on Callaghan Creek were reported to be even higher than the upper Cheak run when the two contiguous runs there (i.e. upstream of Cheakamus River, and upstream of Highway 99) are considered together. There were 673 reported descents of the Cal-Cheak run alone, and 313 reported descents of the Upper Callaghan run. These runs, as well as the three lower Ashlu Creek runs, the upper Elaho River canyon run, lower Ryan River, and the Rutherford Creek runs all were reported by the regional paddling community to be the most highly valued (i.e. average “overall whitewater quality rating” score of 4.5 or higher out of a possible 5, with the exception of the Cal-Cheak) of all whitewater runs in the region. Accordingly, based on reported use levels, all of the above identified runs likely see “hundreds” of descents per year, meaning anywhere from more than 100 to possibly more than 1000 descents per year.

Other highly valued runs (i.e. average “overall whitewater quality rating” score of 3.3 to 4.4) indicated as having high use levels were the lower Soo (370), Birkenhead River raft run (360), lower Mamquam (348), and as mentioned above the Cal-Cheak. Once again it should be stressed that these figures are considered to represent likely the absolute minimum values for use; each of the runs support “hundreds” of descents per year. With the exception of the Cal-Cheak and possibly the Mamquam runs, it is unlikely but not implausible that these runs currently see more than 1000 descents by recreational paddlers per year. (The lower Mamquam, the lower Birkenhead, and other commonly rafted runs likely see several hundred or over 1000 “person-days” per year when factoring in commercial river use).

Other runs that appear to be less frequently run but reported to be very highly valued by whitewater paddlers include Rogers Creek, Skookum Creek, Stawamus Creek, Furry Creek, and upper Ashlu Creek. Each of these runs was reported by survey respondents to be run less than 100 times per year, although Rogers Creek in particular may actually support more use than that. Survey responses from international touring/pro paddlers indicated a significant but undetermined amount of use of many of these steeper creeks which feature (among other things) waterfall drops, which make the runs especially appealing to Grade Five boaters and videographers. Several other lesser known and currently infrequently run creeks also were reported to be highly valued by the regional and international paddling community.

On the basis of use levels reported by an unknown percentage of the overall whitewater paddling community who recreate in the Squamish Forest District, and using the criteria developed and applied for the purpose of this inventory, 22% of the identified runs are paddled “frequently”. Of the other runs considered to be paddled “infrequently” at the present time, 48 were assessed as having potential for frequent use while the remaining runs (30% of the total number of runs identified) were assessed to have potential for increased use, but not necessarily “frequent” use, in the near future. This assessment of use does not reflect the large number of tourists who make descents of many of these runs with local commercial river recreation operators.

The results of the international touring/pro paddler survey provide additional perspective on local whitewater paddling opportunities. These expert paddlers consistently rated Callaghan Creek, upper Cheakamus River, Rogers Creek, Rutherford Creek and Skookum Creek as among their

favourite runs in the area and also characterized them as “world class”. Many of these individuals have paddled in other whitewater “hot spots” around the world, notably in the American southwest and southeast, the Colorado Rockies, Austria, Chile, Costa Rica, Norway, and New Zealand. They all reported that whitewater paddling opportunities in Sea to Sky compared favourably. The main things these paddlers reportedly valued most about Sea to Sky creeks and rivers included: the number and diversity of runs that were available and accessible; the technical challenge of runs available; and the quantity of water available in these streams, reflecting both the lack of dams and the relatively late season timing (i.e. July, August) of streamflows associated with snow and glacial melt. Other frequently mentioned draws of this area for international paddlers are the character and scenic quality of local streams, as well as the amenities and infrastructure most notably in the Whistler resort. Select quotes from these individuals (See *Appendix 5* for more detail) are presented below to better characterize their individual perspectives on paddling opportunities and experiences in this region.

### **Quotes from international paddlers**

As a sponsored paddler I am lucky to be able to choose almost anywhere in the world to paddle, and every year I come back to Whistler at least once if not more. It is one of my top 5 spots in the world. – *Eric Southwicke, USA, 1999 World Freestyle Champion*

During the months of July, August, and September, BC offers the best selection of viable creeks and rivers in the Western Hemisphere. Farther south, most of the snowmelt is exhausted by that time of year. – *Chris Joosse, USA*

Diversity, quantity, quality [of runs make Whistler a special place for paddling]. Some of the best, most accessible, high-quality whitewater in the world. – *Daniel DeLaVergne, USA*

Callahan, Rogers, Mashiter, Skookum, Rutherford waterfalls are what make the Whistler area and the coastal BC range an international destination. The waterfalls are not huge - generally between ten and thirty feet tall - and that is manageable. They tend to have large, deep, clear pools at the bottom. – *Dixie Maree Prickett, North Carolina USA*

Reliability of water levels, accessibility, the sheer number of rivers that can be paddled, the mix of river types ... short technical runs, multi day expedition lengths, play rivers, water quality ... the very best anywhere; I have traveled extensively across many continents and Whistler has it all !! The great thing about Whistler is that there is just so much to do...If a family person wants to go on a kayaking holiday, but does not have enough days holiday from work to go on a separate family trip and a kayaking break, Whistler is just the place to go as it is possible to combine them both. Many locations around the world ... i.e. Norway, Iceland have excellent paddling ...but they are just so remote, that kayaking is the only thing that you can do there. Where as Whistler has so much more to offer the rest of the family eg. cycling, skiing, sailing, shopping, touring etc ...– *Chris Onions, England*

### **Growth in the sport**

The results of research into growth in the sport of whitewater paddling were useful in helping to inform this inventory project with respect to assessing “potential”. The sport of whitewater paddling is still young, and it is probably safe to say that in western Canada in particular it is still

in its infancy with respect to participation rates. Accordingly, very little data is available in the public domain to quantify either current participation rates or growth trends in the sport. That meager data which is published in recreation equipment and outfitting trade journals etc. tends to lump together all paddlesports (i.e. sea kayaking, whitewater kayaking, whitewater canoeing, and lake canoeing), thus making it extremely difficult to report quantitatively and specifically on growth in whitewater paddling. However, representatives from kayak manufacturers contacted during the course of this project have indicated most have had significant growth in whitewater kayak sales. Also, studies completed by the Outdoor Industry Association in the United States have indicated that there has been substantial growth in paddlesport participation and paddlesport sales in recent years (Stanton 2002). Apparently about 26 million people in the USA currently participate in “paddlesports” (Pers.comm. J.Mallett).

Wavesport Kayaks have had an average annual growth rate of 30% in sales of whitewater kayaks over the last ten years with approximately 50% of the growth being due to market growth (Pers.comm. Keith Wallace, Wavesport). (Presumably the other 50% is an increase in market share). Riot Kayaks own research estimated an average of 10-15% annual growth in the whitewater kayak sales for the industry in general over the same time period (Pers.comm. Veronique Dupuis, Riot Kayaks). Other personal communication with Chris Pedrick (Liquid Logic Kayaks), Mike Ramsay (Pyranha Kayaks) and Mark Pate (Perception and Dagger kayaks) revealed that those companies have had growth in whitewater kayak sales over the past few years, although none of the individuals had any data readily available for public distribution. Necky Kayaks reported exponential growth in overall kayak sales over the last 3 or 4 years, although specifically whitewater kayak sales apparently have shown very little growth (Pers.comm. Susan Beller, Necky Kayaks). Susan Beller further indicated that whitewater kayak sales are very much a niche market and an individual company’s sales in a given year depends highly on who has “the hot boat” that year.

Wavesport President Keith Wallace also indicated that percentage growth in kayak sales has been higher in Canada than in the US over the last several years, but noted that the Canadian market is much smaller. He also expected growth in kayak sales to continue but at a slower rate due to an over abundance of used kayaks on the market and slowing US economy.

A study completed by Leisure Trends Group for the Outdoor Industry Association (OIA) reported that the paddlesports industry (presumably in USA, perhaps North America?) generated \$US300 million in sales in 2000, up 10.7% from sales of 280.3 million in 1999 (Stanton 2002). Of the \$300 million total, approximately \$24.8 million was attributed specifically to whitewater kayak sales. Previous studies done by the OIA indicated that “kayaking” in general (i.e. sea kayaking, kayak lake touring and whitewater kayaking) has had some of the most dynamic growth of any outdoor recreational activity in the USA. Participation rates apparently increased 50% between 1998 and 2000, from 4.2 million to 6.4 million people. Although the OIA study does not break out whitewater kayaking from other kayaking activities, the growth in participation by individuals from 16 to 24 years of age, from 16% to 28% between 1998 and 2002, is most likely an indication of the growing numbers of whitewater boaters (Paddlesports Business 2001).

## DISCUSSION

This whitewater inventory represents the first of its kind in Western Canada known to the author. The methods used to collect and evaluate information were considered to be effective in drawing together disparate bits of existing mapped, published, and anecdotal information, and in generating new information which when combined help define and characterize existing whitewater paddling use of the project area's creeks and rivers. The methods used to evaluate information are not considered to be particularly "statistically rigorous", although they are considered to be likely the best possible means of evaluation given identified constraints. From reviewing the results of this work and considering anecdotal and personal observations, what appear to be the two most significant possible shortcomings of the qualitative assessment methods applied in this project relate to assessing "Use" and "Potential". These issues and other possible study limitations are addressed below.

As noted in the *Methods* section, an unknown percentage of the total local and international paddling community completed survey questionnaires, and the total number of user days reported only by these individuals was the basis for assessing "frequent" or "infrequent" use. Perhaps half or possibly even the majority of Whistler/Pemberton-resident paddlers completed the survey, although a smaller percentage of Squamish-resident paddlers are thought to have participated in it. Vancouver and lower mainland-resident paddlers who recreate in Sea to Sky likely are the most significantly under-represented user group by place of residence, and the relative lack of their input in particular likely serves to understate paddling use levels on various runs. As one example, the upper Mamquam River run was reported by survey respondents to have 42 descents per year, 14 of which were reported by 8 respondents who reside in the greater Vancouver area. However, anecdotal accounts suggest that Vancouver-based paddling club trips involving large groups occur at least once and possibly several times a year on that relatively easy and fun run (Pers. comm. S.Smith). However, without any firm grasp on whether the 42 reported descents represent only half or an even smaller fraction of total actual use, the use level was assessed as "infrequent" (i.e. <100). This is a recognized study limitation that may invite alternative interpretations of actual use levels on certain whitewater runs. In the bigger picture, however, the "order of magnitude" approach was considered appropriate since so many of the runs had reported use levels significantly less than 100 and significantly more than 100 descents, and therefore it is safe (and useful for distinction) to say "tens" of runs versus "hundreds" (or thousands) of runs occur on a given stream.

With respect to assessing "Potential", it is notable that a certain amount of resolution was lost when average numbers (to one decimal place) were rounded and grouped to fit a 1-5 rating scheme for the purposes of using these values in a decision matrix. (An "overall whitewater quality rating" average value was factored together with a "logistics" value to determine the *potential for frequent use* of each currently infrequently done run). For example, runs with quality ratings either at the low end of moderate (i.e. 2.5) or the high end (3.4) both would be classed as moderate (3). If logistics were assessed to be moderate also, the moderate quality run would be assessed using the decision matrix as having "some potential". In reviewing and comparing the results of this assessment method between different runs, it was apparent that in some cases the logistics rating might distinguish a reportedly inferior quality run as having more

potential for frequent use than another run reported to offer a higher quality whitewater experience. This shortcoming was not identified as being especially prevalent, but it is noted and it may invite alternative interpretations of “potential for frequent use” for certain runs.

In terms of statistical relevance, the indication of “Significance” for certain runs cannot really be said to be assessed on the basis of an *average* “overall whitewater quality rating” (i.e. average of all survey responses for that run,  $n=1<65$ ) when only 1 response was received for evaluation. Less than 10 responses with associated quality ratings were received for many of the infrequently run streams, reflecting that either these runs are not well known, or they are not widely appreciated for paddling, or the type of paddler who runs them was not represented well by the survey. In any case, at least one response was received for all runs that had been identified in the inventory (2 of the 100 runs have been scouted but not yet paddled), and using this available qualitative information the same procedures were applied as for all other runs.

This inventory may under-represent certain recreational paddling groups and demographics. While a cross-section of paddlers participated in the survey used to generate data for this project, and survey responses indicated a wide range in ages and places of residence within the region, novice whitewater paddlers in particular likely were under-represented. It was apparent that self-described Grade Three paddlers valued a different selection of streams than Grade Five boaters, which would influence the results of the survey. There is an acknowledged possible bias reflected in these inventory results whereby more challenging whitewater runs appear to be rated generally higher for “overall whitewater quality”, due to there being only about 15-20% representation by survey respondents paddling at a self-reported Grade Three level or lower.

Those issues acknowledged and aside, the recreational interests and values of regional whitewater paddlers are thought to be relatively well represented in the summary findings presented here, with a total of 65 regional paddlers having had input to the inventory. The resulting data compiled for use for decision support by the provincial government is a valuable source of information on whitewater paddling recreation. The results of this inventory should be particularly useful for reviewing small-scale hydro development applications, since they identify and reflect so well which “steep creeks” (i.e. those most likely to be of interest for micro-hydro development) in the region currently are paddled and valued most by members of the whitewater paddling community.

The findings of this inventory work with respect to identifying broader recreation uses of the area’s waterways also will be valuable in land and resource management planning. Outdoor recreation stakeholders represented in multi-sector land use planning initiatives should be able to draw from the results of this study to help put into perspective the available “river recreation resource” in the Sea to Sky region. For what it is worth, the BC provincial river recreation strategy developed in 1992 included a framework for identifying significant recreational rivers (see ORC 1992), and using that framework and criteria many Sea to Sky region creeks and rivers would be assessed as being of provincial, national, and international significance. Tourism sector representatives and agencies involved in land use planning may find there is relatively little information contained in the database that describes or characterizes commercial recreation uses. (However, it would be very easy for these individuals or organizations to collect levels of use



data or related information from the commercial operators identified by this inventory, provided that the businesses would release such proprietary information). That is a recognized limitation of this inventory project stemming from the project terms of reference.

People who value regional streams for nature viewing, streamside walking and biking, fishing and other uses are not considered to be well represented by this inventory, despite the opportunities for members of the general public to learn about the inventory in progress from a news story appearing in local newspapers, and despite attempts to solicit their input via an advertised open house. There is also a recognized lack of information presented in this report and associated database which identifies or describes other uses of the inventoried creeks and rivers, including but not limited to domestic water supply use, irrigation use, hydroelectric use, other industrial use and First Nations cultural or other uses. These aspects of use were well beyond the project terms of reference for this whitewater inventory.

The author of this project report is reasonably assured there are very few if any remaining unidentified navigable streams in the project area with significant potential for whitewater paddling use. Before providing reasoning for this statement, some background information is required. Given the very short timeline and mid-winter timing (February and March 2002) of this inventory project resulting from a tight government schedule, meaningful field investigations done specifically for the inventory were out of the question. No current and comprehensive whitewater guidebooks for the region were available at this time. Consequently, completion of this inventory project to an appropriate standard would not have been possible without the contribution of baseline data from Stuart Smith and Headwaters Press. Over a period of several years S.Smith has done field reconnaissance and completed his own “inventory” of whitewater paddling runs in the area specifically for the preparation of a whitewater guidebook for the coastal region of BC. S.Smith has earned a reputation for producing high quality guidebooks (see *Sources*), and as a sponsored professional paddler he has also been given recognition of his capability for extreme kayak descents (e.g. see Twitch video series, *Appendix 2-A*). Accordingly, the author’s assurance with respect to “inventory comprehensiveness” stems from: 1) the impression that S.Smith has not only an apparent personal motivation to seek out challenging new whitewater runs, he likely has a separate motivation to ensure that his guidebook is as complete as possible; and 2) the fact that S.Smith has the demonstrated capability to be on the leading edge of exploration in whitewater sport. In other words, if there are any reasonably accessible “first descents” left out there, they most likely would have been identified by now.

In summary, the anticipated continued growth of this sport, the future release of a whitewater guidebook for the area, and a growing national and international awareness of the high quality paddling opportunities in the Sea to Sky region all are expected to result in significantly more whitewater paddling use in the region. Despite colder than average water temperatures for whitewater paddling, this region is reported to compare favourably with the top paddling destinations in the world. The Province of British Columbia and Ministry of Sustainable Resource Management, as well as other agencies and organizations who were jointly supportive of initiating this whitewater inventory project, are to be commended for taking appropriate steps in taking stock of this resource prior to committing to future land and water resource development and management activities.

## SOURCES

NOTE: In addition to the maps, reports and publications cited below, see *Appendix 2* and *Appendix 6* for reference to other non-published sources of information used (e.g. personal communication and videography) in this project.

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## APPENDIX 1:

### Inventory Attribute Field Codes and Explanations

The spatial database developed for this inventory project is comprised of fields containing both numeric values and text. The following is a complete list of fields and associated coding explanations for all attributes added to the Arc Attribute Table (AAT). More detailed information on methods used to derive these data is presented in the body of the report.

**ID** – Identifier; unique sequential number assigned to each distinct whitewater run

**RIVER** – Name of stream or river, as per BC Watershed Atlas

**RUN** – Name of each distinct paddling run, as per local name or guidebook reference

**GRADE** – Overall level of difficulty for the entire section of river being run

**CLASS** – Difficulty of rapids, as per international whitewater classification

**PUT\_IN** – Text describing access to start of paddling run

**TAKE\_OUT** – Text describing access to end of paddling run

**SOURCE** – Stream flow source, whether rain, snowmelt, and/or glacial melt

**SEASON** – Months (start of season – end of season) paddling is known to occur on the run

**USE** – Qualitative indication of level of use (order of magnitude, i.e. tens or hundreds). 0=scouted but not currently paddled, 1= “infrequent” use (<100 paddlers/yr), and 2= “frequent” (>100 paddlers/yr). *Note:* streams not identified in inventory remain unclassified.

**SIGNIFICANCE** – Notation of which streams are of high importance to the regional whitewater paddling community.

0=no known significance, 1=some significance, 2=special significance/high importance.

*Note:* Runs that currently support frequent use (USE=2) were coded SIG=2.

**POTENTIAL** – Notation of which infrequently used (i.e. USE=0 or 1) streams may have the potential for frequent whitewater paddling use in the future.

0=assessed no potential, 1=potential for more use, 2=potential for frequent use.

**QUALITY 1** – Notation of survey respondent average “whitewater quality rating”, where 1=lowest rating, and 5=highest rating. Based on numeric values in “QUALITY 2” field used in decision matrix with “LOGISTICS” values to score “POTENTIAL”.

0= “unknown/no assessed quality”, and identifies runs not yet paddled that have been scouted and deemed both navigable and of significant recreational interest.

**QUALITY 2** - Notation of whitewater quality rating, based on survey respondents' indications of "overall whitewater quality rating" using a scale of 1 (lowest) to 5. Numeric value (to one decimal place) represents an average of all applicable survey responses to the question for each run. 0= "unknown/no assessed quality", and identifies runs not yet paddled that have been scouted and deemed both navigable and of significant recreational interest.

**N** – Notation of the number of respondents who reported having done this run, and subset of those who provided an "overall whitewater quality rating" for the run (see "QUALITY 2"). The first of two numeric values (separated by forward slash) in this field indicates the number of respondents who provided a quality rating for the run; the second value indicates the total number of respondents who reported having done this run.

**LOGISTICS** - indication of logistical effort (e.g. difficulty of access to the river, difficulty of any required portages, etc.) to make the run, as determined by experience/expert knowledge. L= low level of logistics required (most convenient), M= moderate logistics, H= high logistics (logistically complex or demanding)

**TOUR** - Notation of reported valued to international touring/pro paddlers. 0=No/Unknown, 1=Yes

**TOUR\_GUIDE** – Notation of whether there are known uses of the run for commercial river recreation: 0=No/Unknown, R=Commercial rafting, J=Commercial jet boating, K=Commercial kayak instruction, kayak or canoe guiding, or raft-supported kayak trips

**NATURE** – Notation of any known formally established recreation use sites, trail, or feature (i.e. identified by BC Forest Service or BC Parks): 0=No/Unknown, 1=Yes

**REC\_ANGLE** – Notation of whether there are known uses of the run for recreational sport fishing: 0=No/Unknown, 1=Yes

**ANGLE\_GUIDE** – Notation of whether there are known uses of the run for commercially guided sport fishing: 0=No/Unknown, 1=Yes

**FILM** – Notation of whether there are known uses of the run by Vancouver commercial/film industry for river stunt/scenic locations (*Note*: does not include whitewater paddling sport videos): 0=No/Unknown, 1=Yes

**PROMO** – Notation of whether there are features or promotions of the run in retail print or video media concerned with whitewater sport: 0=No/Unknown, 1=Yes

**COMMENTS** – Notation of any other information or descriptive comments relating to recreational use of the whitewater run.

**APPENDIX 2:**  
**Information summaries, various sources**

**Sea to Sky Whitewater Rivers Inventory, Appendix 2-A:  
Known whitewater paddling videos featuring Sea to Sky area creeks and rivers**

Still Twitch'n (2001, TWITCH series by Eric Link, VideoLink, WA, [www.vdolink.com](http://www.vdolink.com) – 34 min.):

Ashlu Cr mine run, box canyon run	Mashiter Cr
Crawford Cr	Rutherford Cr upper run
Furry Cr	Skookum Cr
Mamquam R waterfalls above slalom site run	South Cr

Spawning Grounds (2001, Liquid Lifestyles series by Scott Lindgren Productions, CA):

Mamquam R waterfalls above slalom site run	Rutherford Cr upper run
North Cr	Twenty-one Mile Cr

Aerated (2002, Liquid Lifestyles series by Scott Lindgren Productions, CA):

Rogers Cr

Lunch Video Magazine (Dec 2001 Issue #3, [www.lunchmag.tv](http://www.lunchmag.tv)):

Ashlu Cr box canyon run	Rogers Cr
Callaghan Cr	Rutherford Cr

Lunch Video Magazine (Apr 2002 Issue #4, [www.lunchmag.tv](http://www.lunchmag.tv)):

Ashlu Cr	Rogers Cr
Callaghan Cr	Rutherford Cr lower run
Mashiter Cr	Skookum Cr

Nurpu (2001, Teton Gravity Research):

Mashiter Cr	Rogers Cr
Ryan R upper run	Skookum Cr

Topo Country (1998?, Eric Bowers, BC):

Ashlu Cr, lower canyon and box canyon	Furry Cr
Britannia Cr	Rutherford Cr
Cheakamus R Balls to Walls Falls	(and other runs? not identified)

Seventh Drop in God's Country (2001 Reel Rooster Productions, BC – 23 min.):

Callaghan Cr	Rutherford Cr
Cheakamus R upper	Ryan R
Joffre Cr	Soo R
South Cr	

Breathe (2001, CA):

Ashlu Cr	Rogers Cr
Callaghan Cr	Rutherford Cr

**Sea to Sky Whitewater Rivers Inventory, Appendix 2-B:  
Use of inventoried whitewater streams by Whistler Angling Club members**

<b>Name of river/stream</b>	<b>What section(s) do you fish (if any)?</b>	<b>What months?</b>
Furry Cr	YES	SUMMER
Brittannia Cr	YES, NO ACCESS	
Stawamus Cr	YES	
Indian R	YES	SUMMER
Meslilooet Cr	NO	
Mamquam R	YES	
Mashiter Cr	NO, SPAWNING (MOUTH ONLY)	
Ring Cr	NO	
Raffuse Cr	NO	
Skookum Cr	NO	
Crawford Cr	NO	
Squamish R	YES	
Ashlu Cr	YES	
Elaho R	YES	
Sims Cr	NO	
Clendenning Cr	YES	
Cheekeye R	YES	
Culliton Cr	YES	
Rubble Cr	YES	
Brandywine Cr	MOUTH	
Callaghan Cr	YES	
Cal-Cheak	YES	
Cheakamus R	YES	
Fitzsimmons Cr	YES	
21 Mile Cr	YES	
R Golden Dreams	YES	
Soo R	YES	
Lillooet R	YES	
Douglas Cr	NO	
Sloquet Cr	YES	
Fire Cr	YES	
Gowan Cr	NO	
Snowcap Cr	YES	
Rogers Cr	YES	
Tuwasus Cr	YES	
Billygoat Cr	YES	
Ure Cr	YES	



*Whitewater Stream Inventory (2002) Squamish Forest District*

Joffre Cr	YES	
Birkenhead R	YES	
Owl Cr	YES	
Green R	YES	
Rutherford Cr	YES	
Ryan R	YES	
North Cr	NO	
South Cr	NO	
Meager Cr	YES	
Pebble (Boulder) Cr	YES	

**Sea to Sky Whitewater Rivers Inventory, Appendix 2-C:  
Use of inventoried whitewater streams by Whistler-based commercial sport fishing guides**

Name of river/stream	What sections fished?	Used by angling guiding operation?
Furry Cr		
Brittannia Cr		
Stawamus Cr		
Indian R	Above falls	YES (5)
Indian R	Lower at mouth	YES (4)
Meslilooet Cr		
Mamquam R	Lower	YES (6)
Mashiter Cr		
Ring Cr		
Raffuse Cr		
Skookum Cr		
Crawford Cr		
Squamish R	All	YES (6)
Ashlu Cr	Lower	YES (5)
Elaho R	Below canyon	YES (5)
Sims Cr		
Clendenning Cr		
Cheekeye R		
Culliton Cr		
Rubble Cr		
Brandywine Cr		
Callaghan Cr		
Cal-Cheak		
Cheakamus R	Below canyon	YES (6)
Cheakamus R	Cal-cheak confluence	YES (2)
Cheakamus R	Function Junction to Callaghan	YES (3)
Cheakamus R	Cheakamus Lake to Function Junction	YES (1)
Fitzsimmons Cr		
21 Mile Cr		
R Golden Dreams		
Soo R		
Lillooet R	Upper/Lower, Hurley Rd to Harrison L	YES (6)
Lillooet R	Upper, Keyhole Falls to Hurley FSR	YES (1)
Douglas Cr		
Sloquet Cr	Below hotsprings	YES (3)
Fire Cr		
Gowan Cr		

*Whitewater Stream Inventory (2002) Squamish Forest District*

Snowcap Cr		
Rogers Cr		
Tuwasus Cr		
Billygoat Cr		YES (1)
Ure Cr		
Joffre Cr		
Birkenhead R	Middle (raft run)	YES (3)
Birkenhead R	Upper (down to bridge/raft put-in)	YES (5)
Owl Cr		YES (1)
Green R	Below Nairn Falls campground	YES (1)
Green R	Soo River to above Nairn Falls	YES (1)
Green R	Raft run	YES (2)
Rutherford Cr		
Ryan R		
North Cr		
South Cr		
Meager Cr		
Pebble (Boulder) Cr		

**Sea to Sky Whitewater Rivers Inventory, Appendix 2-D:  
Known use of whitewater streams as film locations by commercial/feature film industry**

Dave Alexander, stunt & safety coordinator (Pers comm):

- Upper Cheak: many commercials and features (e.g. White Fang II, Alaska) at put-in for this run, and near bottom of run at House Rock
- Cheakamus R at “Balls to Walls” Falls: commercials
- Cal-Cheak: commercials in middle of run at the weir site and above at suspension br
- Callaghan Cr: waterfalls used for commercials including Medicalert and Boy Scouts
- Green R raft run: commercials and feature (Alaska) shot at lake outflow and downstream
- Green R Nairn Falls: commercials
- Green R Nairn down to Lillooet: feature (Gold Diggers) using jet boat support
- Lillooet River: vicinity of Green R confluence for feature (Gold Diggers)
- Birkenhead River raft run: used for feature (Alaska), canoes running rapids
- Birkenhead R below Birkenhead Lake: used for feature (Alaska), canoeing rapids
- Squamish River below Elaho: Steamroller rapids used for feature or commercials
- Elaho River lower: Devil’s Elbow rapids used for feature (Alaska)
- Ashlu River lower canyon: feature and commercials near first bridge
- Furry Creek near top of golf course: commercial shot at the waterfalls
- Mamquam River above slalom site: waterfalls run for feature (The Extremists) and commercials

Tammy Shymko, Locations manager (Pers comm):

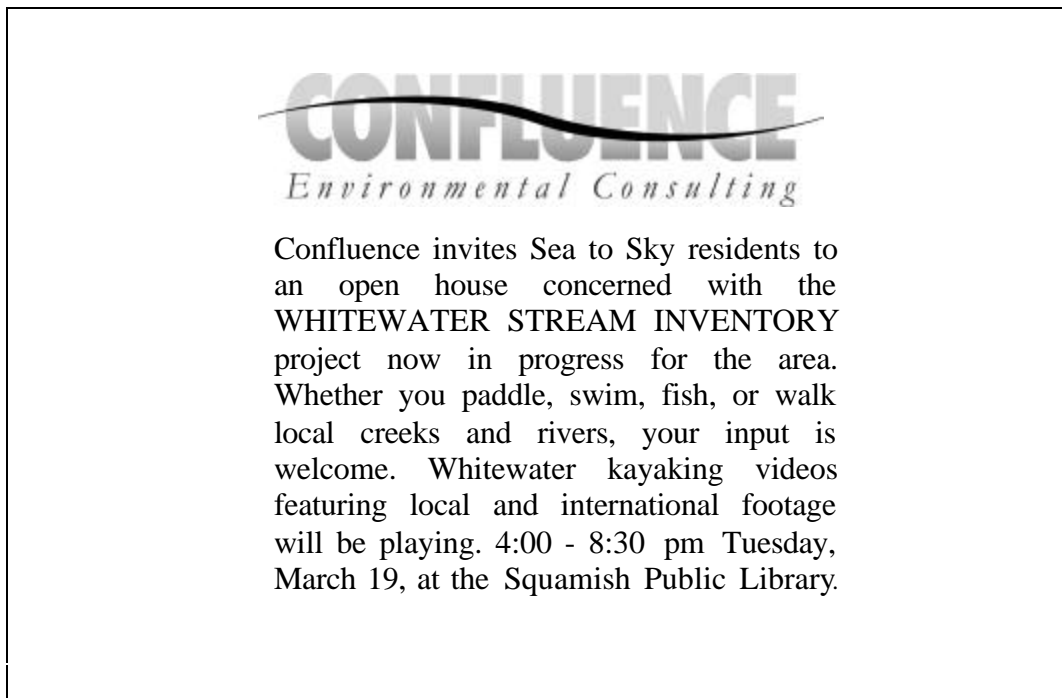
- Squamish-Elaho several commercials and features
- Ashlu R lower canyon (1<sup>st</sup> bridge) at 23 Mile and 25 Mile
- Cal-Cheak used for commercial
- Cheakamus Balls to the Walls
- Upper Cheak at House Rock
- Cheakamus Paradise Valley
- Birkenhead R raft run at Owl Creek campsite
- Turbid Creek falls excellent scenic location (but not incl in whitewater inventory)
- Mamquam upper (around Skookum Cr) used for feature The Extremists
- Mamquam slalom site downstream is on her list of scouted good potential locations
- Mamquam falls used for feature The Extremists and other shoots
- Stawamus R has been identified as good potential but not yet used

Other locations identified by D.Butler, S.Smith, L.J. Wilson, and E.Askey (all involved in river safety/stunts) include:

- Raffuse Creek used for filming feature The Extremists
- Soo River diversion run used for TV adventure race Survival of the Fittest
- Cheakamus dam run used for filming feature The Extremists
- Cheakamus canyon (below dam run) used for feature Shoot To Kill, also TV adventure race Survival of the Fittest
- Soo River above diversion: used for river stunts in feature (Firestorm)

**Sea to Sky Whitewater Rivers Inventory, Appendix 2-E:  
Open House public invitation and response**

Notice placed in the Whistler Question, Pique Newsmagazine, and Squamish Chief weekly and bi-weekly newspapers early-mid March 2002:



Note: A total of 12 people attended the open house, including representatives of local commercial river recreation businesses, paddlers (meetings had been called previously for members of local paddling groups), and interested members of the general public.

**Summary of written public input collected at the meeting:**

- 1) "I have no specific comments, but want to express my support for this inventory and for protecting/maintaining these recreational spaces".
- 2) "Mamquam, lower Cheakamus, lower Squamish. Sea to Sky Kayaking uses these rivers for instruction. Runs Mamquam River W.W. [Whitewater] Festival in support of the maintenance of the site. 100+ paddlers and spectators, international sponsorship involved. June 29-30. 6<sup>th</sup> yr this year".

**APPENDIX 3:**

**Survey instrument used for collecting input from regional paddlers**



Hello paddler,

Thanks for taking the time to review this letter and questionnaire, which concerns whitewater paddling in the Whistler area of southwestern British Columbia. Some recent water and land use plans for this area relate to whitewater sport. By spending a few minutes completing the following paddler survey questionnaire, you will be playing a small but critical role in helping to shape those plans and developments.

In February 2002, Confluence was contracted to the BC government to complete an inventory of streams located in the Squamish Forest District which currently or potentially support whitewater paddling use. This forest district area encompasses the Squamish and Lillooet River drainages (including all their tributaries, and also including the Indian River) and has Whistler as more or less the geographic center. The main purpose of inventorying these whitewater streams is to identify paddlers' areas of interest so that government agency personnel are aware of these interests when reviewing applications from Independent Power Producers for possible "micro-hydro" developments in the area. Also, the information may be used more broadly for land and resource management planning (the "Sea to Sky LRMP") that is taking place over the next couple of years. The inventory will identify all known whitewater runs in the area and will indicate paddling use, potential, and significance. (Contact me if you want more info on the methods to be used for this). The inventory will also document other known uses of these navigable streams.

I would appreciate your input, even if you can comment on only a few of the rivers listed on the following questionnaire. The important thing is that I hear from you, get a sense for where you are paddling, and understand what you value most about the different runs. The list of almost 50 different paddleable streams represents our current state of information. (*\*Note that some stream names are repeated 2 or more times on the list, for you to identify different paddling runs on that same river*). Most but not necessarily all of the identified streams are thought to have been paddled by raft, whitewater canoe, and/or kayak.

Please print out the following questionnaire, complete it for the runs you have paddled, then return it ASAP to Confluence by fax (604 938 3131) or mail posted by March 8 to the address below. If you would rather complete and return the form digitally, please email me and specify what format (MS Word 95? PC or Mac?) works for you. Feel free to add comments, insights, qualifiers or explanations on an extra page attached. Please double-check before returning questionnaire that the "Paddler info" section (4 questions) near top of page 1 is complete, and your personal "Top Ten" runs are circled/bolded at left on questionnaire (make sure to specify which run/section of the creek you are referring to).

I should add that you can also return this questionnaire to me in person at the "Twitch IV" video premiere and slideshow in Squamish (March 9), Whistler (March 10) and Vancouver (March 14). This footage features regional and international paddling; see [www.whitewater.org](http://www.whitewater.org) for more info. Draft inventory maps will be on hand at these events for review and discussion. An advertised public open house to be held in Squamish later in March will be the final opportunity for inventory input from regional paddlers, as the project is to be wrapped up by the end of March 2002.

Finally, here is some background on me for your information. Since 1995 I have operated a small professional consulting business registered in BC as Confluence Environmental Consulting, and since 1996 I have lived and paddled in the Whistler area. My work in the field of land and water resource management has included numerous stream-related studies including inventories, stream channel surveys, fish habitat restoration plans and instream works mostly in the Coastal and Rocky Mountains. And while much of this work has been related to industrial development, over the years I have completed numerous management plans for private sector tourism operations and have also conducted river recreation studies for provincial and federal government agencies.

Thanks again for taking the time to complete and return this questionnaire.

Ethan Askey,  
Confluence Environmental Consulting

WHITEWATER PADDLING OPPORTUNITIES IN THE SQUAMISH FOREST DISTRICT – PADDLER SURVEY (Page 1 of 3)

Confluence Environmental Consulting 2002

Paddler Info: 1) Age \_\_\_\_ 2) How many years have you paddled? \_\_\_\_ 3) What is your level of paddling ability/comfort? (Class II-VI) \_\_\_\_ 4) Where do you live? \_\_\_\_\_

Creek/River (Please circle your "Top Ten" runs)	What run or put-in location?	How would you grade the run (II-VI) ?	How often do you do the run? (days per year)	What months do you run it typically?	How often do you see other paddlers on this run? (often, seldom, never)	State what if anything is special about each run (e.g. challenge, diversity, play spots, scenery, flow season, accessibility), and give an overall whitewater quality rating 1-5 (1=low, 5=high)
<i>Example Creek</i>	<i>Lower Canyon run</i>	<i>IV</i>	<i>20</i>	<i>April - Aug</i>	<i>Often</i>	<i>Best playboating in the area - 5</i>
Furry Cr						
Brittannia Cr						
Stawamus Cr						
Indian R						
Meslilooet Cr						
Mamquam R						
Mamquam R						
Mashiter Cr						
Ring Cr						
Raffuse Cr						
Skookum Cr						
Crawford Cr						
Squamish R						
Squamish R						
Ashlu Cr						
Ashlu Cr						
Ashlu Cr						
Elaho R						
Elaho R						
Sims Cr						
Clendenning Cr						
Cheekeye R						
Cheekeye R						
Culliton Cr						
Culliton Cr						



WHITEWATER PADDLING OPPORTUNITIES IN THE SQUAMISH FOREST DISTRICT – PADDLER SURVEY (Page 2 of 3)

Confluence Environmental Consulting 2002

Creek/River (Please circle your "Top Ten" runs)	What run or put-in location?	How would you grade the run (II-VI) ?	How often do you do the run? (days per year)	What months do you run it typically?	How often do you see other paddlers on this run? (often, seldom, never)	State what if anything is special about each run (e.g. challenge, diversity, play spots, scenery, flow season, accessibility), and give an overall whitewater quality rating 1-5 (1=low, 5=high)
Rubble Cr						
Brandywine Cr						
Callaghan Cr						
Cal-Cheak						
Cheakamus R						
Cheakamus R						
Cheakamus R						
Cheakamus R						
Cheakamus R						
Cheakamus R						
Fitzsimmons Cr						
Fitzsimmons Cr						
21 Mile Cr						
R Golden Dreams						
Soo R						
Soo R						
Soo R						
Soo R						
Soo R						
Lillooet R						
Lillooet R						
Lillooet R						
Lillooet R						
Tipella Cr						
Douglas Cr						
Sloquet Cr						
Sloquet Cr						
Fire Cr						

WHITEWATER PADDLING OPPORTUNITIES IN THE SQUAMISH FOREST DISTRICT – PADDLER SURVEY (Page 3 of 3)

Confluence Environmental Consulting 2002

Creek/River (Please circle your "Top Ten" runs)	What run or put-in location?	How would you grade the run (II-VI) ?	How often do you do the run? (days per year)	What months do you run it typically?	How often do you see other paddlers on this run? (often, seldom, never)	State what if anything is special about each run (e.g. challenge, diversity, play spots, scenery, flow season, accessibility), and give an overall whitewater quality rating 1-5 (1=low, 5=high)
Gowan Cr						
Snowcap Cr						
Rogers Cr						
Tuwasus Cr						
Tuwasus Cr						
Billygoat Cr						
Ure Cr						
Ure Cr						
Joffre Cr						
Birkenhead R						
Birkenhead R						
Birkenhead R						
Birkenhead R						
Owl Cr						
Green R						
Green R						
Green R						
Green R						
Rutherford Cr						
Rutherford Cr						
Ryan R						
Ryan R						
North Cr						
South Cr						
Meager Cr						
Meager Cr						
Pebble (Boulder) Cr						
<i>Others?</i>						

**APPENDIX 4:**

**Survey instrument used to interview international touring/pro paddlers**

## INTERNATIONAL KAYAK SURVEY

NAME:

COUNTRY OF RESIDENCE:

(PROFILE Titles, Sponsorships, Accomplishments, etc):

- 1) When did you first paddle in the Whistler area?
- 2) How often do you paddle in the Whistler area?
- 3) What seasons/months do you tend to paddle in the Whistler area?
- 4) Why did you choose Whistler as a paddling destination?
- 5) What Whistler area creeks/rivers have you paddled?
- 6) Name your personal favorite "top 5" (more or less) Whistler area creeks/rivers and qualify what features make each run special (e.g. challenge, diversity, play boating, scenery).
- 4) Are any of your favorite runs in the area worthy of the title "World Class Kayak Run"?
- 5) How do you rate Whistler area overall as a paddling destination?  
(e.g. Poor, OK, Good, Very Good, Excellent)
- 9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?
- 10) What limitations does Whistler have as a paddling area?
- 11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?
- 12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.

## **APPENDIX 5:**

### **Survey responses from international touring/professional paddlers**

NOTE: survey responses were edited to correct misspelled place names and confusing punctuation or grammar, etc. to the extent required for legibility and format consistency.

## INTERNATIONAL KAYAK SURVEY

NAME: Eric Southwick,  
COUNTRY OF RESIDENCE: USA

1999 World Freestyle Champion, 2001 silver medalist World Freestyle Champion  
1st ever back-to-back men's world champion medalist  
6 time US team member  
2 time national champion

- 1) When did you first paddle in the Whistler area? 1992
- 2) How often do you paddle in the Whistler area? Every Summer
- 3) What seasons/months do you tend to paddle in the Whistler area?  
ALL YEAR ROUND

Why did you choose Whistler as a paddling destination?  
IT OFFERS SOME OF THE BEST PADDLING IN THE WORLD !!!!!

5) What Whistler area Creeks/Rivers have you paddled?  
Cheakamas, Soo, Liawett, Callahan, Skook, crazy little side tribs, and more. It is a mecca for whitewater!!!!

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, play boating, scenery).  
This would be impossible because they all have their special characteristics that make them great!!!

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?  
Yes but its not just a run, it is the whole thing, you can go with a group that has varying skill levels and everyone can paddle. That is what makes it so good. There are a lot of places that have the hard run or the easy run, but few that offer the whole thing.

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent.  
As a sponsored paddler I am lucky to be able to choose almost anywhere in the world to paddle and every year I come back to Whistler at least once if not more. It is one of my top 5 spots in the world.

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?  
The largest of the attractions is that most of the rivers are free flowing. Natural flowing tributaries have a much more diverse spectrum of water; you get great floods stage cycles that change existing rapids and make new ones, and you get to take the first timers down at low water. Most boaters are attracted to high water. Whistler offers this because it has free flowing tribs. Dams have limited paddling so much that it is rare that you find a spot with the diversity of Whistler and no dams.

10) What limitations does Whistler have as a paddling area?  
None, except maybe the awareness of how good the paddling is there.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?  
Yes, for the same reason that Whistler and Blackcomb are one of the top resorts in the world. World class skiing; World class kayaking.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.  
Durango, CO; Hood River OR; Silts, Austria; Taupo, New Zealand; Santiago, Chile; Turrialbo, Costa Rica; to name a few

## INTERNATIONAL KAYAK SURVEY

Name: Kent Ford

Country of Residence: USA

Kent Ford's unique background includes twenty years of international whitewater racing, coaching, including World Championship titles, coaching for the US Team, and working as announcer at the last three Olympic Games. Now Kent focuses on teaching recreational boating to a worldwide audience. His sixteen videos and books on paddle sports have influenced the education of half a million paddlers and have made him one of the most recognized paddlers in whitewater sport worldwide. A veteran of over 330 rivers in 27 countries, Kent has been a member of expeditions to the Soviet Union, Costa Rica, Turkey, and Mexico. Kent holds a BS. in Mechanical Engineering from Carnegie-Mellon University and resides in Durango, Colorado.

1) When did you first paddle in the Whistler area? 1977

2) How often do you paddle in the Whistler area? 1x10 years

3) What seasons/months do you tend to paddle in the Whistler area? June

4) Why did you choose Whistler as a paddling destination?  
Excellent slalom training and racing. Also see Shipleys book.

5) What Whistler area Creeks/Rivers have you paddled? Cheakamus

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery). Some of the best slalom training worldwide.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?  
Absolutely

8) How do you rate Whistler overall as a paddling destination: Poor, Ok, Good, Very Good, Excellent:  
Excellent

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? All of the above.

10) What limitations does Whistler have as a paddling area? Access, but that is also an asset.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? Yes, because of water availability.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment: Colorado mountains

## INTERNATIONAL KAYAK SURVEY

NAME: DANIEL DELAVERGNE

Country of Residence: USA

Daneil DeLaVergne is an accomplished kayaker who films and produces kayak videos.

1) When did you first paddle in the Whistler area? 3 weeks July 2000

2) How often do you paddle in the Whistler area? 4-8 weeks per year

3) What seasons/months do you tend to paddle in the Whistler area?  
July, August, September, October

4) Why did you choose Whistler as a paddling destination?  
Some of the best, most accessible, high-quality whitewater in the world.

5) What Whistler area Creeks/Rivers have you paddled?  
Callahan, Cal-Check, Daisy Lake Canyon, Mashiter, Skookum, Furry, Soo, Green, Rutherford, Rogers, Ryan

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).

Callahan => access, quality of drops

Rogers => Quality of whitewater

Skookum => Huge Drops, quality of hike in

Daisy Lake => Scary Ass Canyon boating

Rutherford => Access, challenge, convenience

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"? Yes, Many of them.

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent  
Excellent

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? Diversity, quantity, quality

10) What limitations does Whistler have as a paddling area?  
High Water Season long duration.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?  
Yes, reliable water level and reliable creeks will make it a plannable destination trip

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment: Chile, California, Southern Appalachians, Washington State, Austria



## INTERNATIONAL KAYAK SURVEY

Name: Charlie Beavers

Country of Residence: USA

1) When did you first paddle in the Whistler area? Three years ago.

2) How often do you paddle in the Whistler area? Every summer since.

3) What seasons/months do you tend to paddle in the Whistler area? July/August

4) Why did you choose Whistler as a paddling destination?

The amount of quality whitewater in the region is incredible. Probably nowhere else in North America has anywhere near the number of class five runs within reach of one town. I've been up there three times, and have yet to get more than 100 kilometers north of Pemberton. Plus, it's just a cool, laid-back place to hang out.

5) What Whistler area Creeks/Rivers have you paddled?

Callahan, Rutherford, Furry, Skookum, Daisy Lake Canyon, Soo, Green, Rogers, Lillooet, Tretheway, probably some other stuff, but I can't remember.

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).

Rogers Creek is probably the best run I've ever done. Wilderness canyon, quality rapids, two gorges with waterfalls. Skookum is kinda the same, hard to get into, pretty, beautiful drops. Furry Creek has a bunch of good, low volume drops right through a golf course. The Callahan has everything; playable holes, a couple of good, clean waterfalls, and some technical, pushy, rapids. Daisy Lake is a cool big water run through a tight gorge with a whole lot of fun, big rapids.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

Definitely Rogers Creek, maybe Skookum as well.

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent? Excellent.

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?

Basically unlimited snowpack (from a kayakers point of view) loads of good things to go run, beautiful scenery, laid back atmosphere, French Canadian girls.

10) What limitations does Whistler have as a paddling area?

Access can be a little interesting. You walk around in the woods, get lost a lot, etc.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?

I think it will become more popular, but probably not to the extent of somewhere like the Ottawa, or West Virginia due to the difficulty of access and the lack of good information. In order to run a lot of stuff up there you have to be fairly dedicated. Most people aren't willing to bushwack a long way with their boats, lower equipment with ropes, deal with bears, etc. in order to put on a creek they know nothing about. On the other hand, people that are into those types of experiences will continue to roll up there on a regular basis.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.

Washington state has similar river features, but not nearly the quantity of good stuff or the snowpack. The south-eastern US has a lot of good shit, but it's all rain dependent and therefore unreliable. BC is good.

## INTERNATIONAL KAYAK SURVEY

Name: Dixie Marree Prickett

Country of Residence: USA

1) When did you first paddle in the Whistler area? summer 2002

2) How often do you paddle in the Whistler area? once a year

3) What seasons/months do you tend to paddle in the Whistler area? late summer

4) Why did you choose Whistler as a paddling destination?

waterfalls, waterfalls, waterfalls. and it has some good rapids too. the waterfalls are not huge generally between ten and thirty feet tall and that is manageable. they tend to have large deep clear pools at the bottom.

5) What Whistler area Creeks/Rivers have you paddled?

Callahan, Mashiter, Furry, Skookum, Rutherford, Cal-chek Daisy lake section, Green, Rogers, Lillooet, Sloquet

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery)

Callahan, Rogers, Mashiter, Skookum, Rutherford waterfalls are what make the Whistler area and the coastal BC range an international destination. The scenery is beautiful and in the summer the area reminds me very much of my home in western North Carolina. It is very lush and green. Mossy and steep.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

Callahan is fantastic. What makes it so wonderful is the easy access and the quality of the whitewater. For locals it is easy to run after work. The waterfalls are fun and have minimal consequences. We did a first decent this year not far from Whistler called Rogers creek, off the Lillooet near the St. Agnes well hot springs. It is defined as a world class run. It has lots of rapids and waterfalls culminating with three 20+ foot waterfalls that create one rapid. We were able to gain access to the river via a newly reconditioned logging road. We ran this river approximately fifteen times in two weeks. It was amazing. Another group went back a month later and after one successful run were abruptly confronted by an angry land owner that refused to let them paddle it "ever" again. It is a shame. It doesn't seem like his land is affecting the access of the river and thereby the right to recreate on this public land. The group that first descended this river also attended a special meeting about the fate of the Rutherford river just north of Whistler and the future hydro project. The meeting was very interesting. It seems in Canada that if it is possible to use this natural resource for recreation then special allowances must be made to accommodate. I would like to move in that direction for Rogers creek. I would love to get involved.

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent?

excellent when the water is not too high

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? again the small manageable waterfalls is what makes Whistler unique.

10) What limitations does Whistler have as a paddling area?

The length of the season and the water temps. For beginner paddlers swimming is vital and swimming around Whistler is cold.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?

Yes for advanced and elite paddlers but the season is short and the water is cold keeping the development of teaching facilities limited and new kayakers few.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.

Washington State, Eastern Tennessee, Western North Carolina, West Virginia

## INTERNATIONAL KAYAK SURVEY

Name: Clay Wright

Country of Residence: USA

Clay Wright is a World Champion Squirt Kayaker and US Freestyle Team Member since 1995. Clay has first descents in 7 states and 5 countries. He has been a Team Perception member since 1999.

1) When did you first paddle in the Whistler area? 2000

2) How often do you paddle in the Whistler area? Every late summer/fall since

3) What seasons/months do you tend to paddle in the Whistler area? July, Aug, Sept

4) Why did you choose Whistler as a paddling destination?

It's the shit. Skookemchuck Narrows, Callahan, Rutherford, Dean - so many top quality kayak runs in a small area with cool folks, killer bars, and nice restaurants. Great local kayak scene, incredible scenery, all within access to Tim Hortons!

5) What Whistler area Creeks/Rivers have you paddled?

Skookumchuck Narrows!!! (a whole lot) Rutherford, Callahan, Checkamus, Cal-Check, Roger's Creek (a lot), Daisy Lakes of Cal-check, Green, Mamquam cr, Massiter Cr, several others I can't remember the name of ( 3 rivers North East of Squamish)

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).

Callahan, Rutherford, Upper Checkamus, Roger's Creek, Skookemchuck

Cal-check [*Daisy Lake run*] fast, continuous class 4+ rapids with some play. High-speed, road access.

Callahan: beautiful gorges, 2 big waterfalls, lots of tough rapids, easy access to Whistler.

Rutherford: 2 big waterfalls, lots of fast-action rapids, an incredible gorge, and fast-access to Whistler.

Roger's Creek: Three 15' waterfalls up top, then three 20' waterfalls in a row at the end!! Hot springs at the take-out.

Skookumchuck Narrows: Biggest wave I've surfed. Great scenery, starfish, access. One of the top 5 waves in the kayaking world.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

Skookumchuck Narrows, Callahan, Rutherford, Roger's Creek

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent? Excellent!!

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? The season - late summer when most rivers are too low in the US. Very high concentration of tough whitewater, high concentration of runnable waterfalls (Mamquam, Callahan, Rutherford, Mashiter, Roger's - so many!) Free camping near rivers, excellent bars / restaurants, Canadian hospitality!

10) What limitations does Whistler have as a paddling area?

Access issues: The loggers shut down Rutherford and Roger's Creek while we were there. We were refused access to 2 small creeks between Squamish and Whistler (golf course, old mine issues)

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?

Of course! So much good stuff, good weather, great destination kayak scene. I predict more and more US and international kayakers will come. There have been several videos and stories on area creeks to hit the international kayak world and Skookumchuck is a wave everyone wants to visit. Expect more of us each year.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment: Chile - Pucon region, Costa Rica - Turrialba, New Zealand - South Island, Hood River OR

## INTERNATIONAL KAYAK SURVEY

Name: Christie Dobson

Country of Residence: USA

Christie is the team leader for the Perception junior Kayaking Team

1) When did you first paddle in the Whistler area? This past summer, 2001.

2) How often do you paddle in the Whistler area?  
Every year hopefully, we were there for 1 month.

3) What seasons/months do you tend to paddle in the Whistler area?  
Summer

4) Why did you choose Whistler as a paddling destination?  
heard it was good, saw video of creeks and rivers there. Especially Skookumchuck. Also the US \$ is strong is Canadian, this stretches out our budget and allows us to be there longer and explore. Also we understand there is still a lot of unrun rivers and creeks there.

5) What Whistler area Creeks/Rivers have you paddled? Skookumchuck, Cal-Chechamus, and upper Chechamus.

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).  
I only did 3, but I liked the scenery for sure. It was like any new run -it's new to me. All the rivers had a very pristine feel. The rivers I ran were great for my skills and they offered a "step-up" on the days I felt good.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

8) How do you rate Whistler overall as a paddling destination: Excellent!

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? It's a relatively new boating area (for us at least). It has a limited runoff period and it's in a very pristine environment. The boating community there is nice and very helpful. There are a real variety of runs for all skill levels.

10) What limitations does Whistler have as a paddling area? the season is really short.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? Yes, there are all levels of kayaking, and Whistler is nice! There is biking and other sports for cross training. It's beautiful and the local boating group there is super cool. Everyone was excited to show us their local runs.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.  
California, Oregon, Washington, Tennessee, North Carolina

## INTERNATIONAL KAYAK SURVEY

Name: Eric Link

Country of Residence: USA

Eric films and produces kayak videos throughout the world featuring today's top kayakers. His "Twitch III" video features many creeks in the Whistler area.

When did you first paddle in the Whistler area? 1994 While on summer vacation from teaching.

2) How often do you paddle in the Whistler area? A couple times a year.

What seasons/months do you tend to paddle in the Whistler area? Summer, June-July

4) Why did you choose Whistler as a paddling destination? The rivers in the area have good, challenging whitewater and waterfalls. The last time I paddled in the Whistler area was for a Nissan Exterra commercial shoot. They chose "Balls to the Wall" fall on the Cheakamus River to shoot the kayaking segment of the ad, and I was hired as a kayak coach for Shannon Carroll (the talent). That ad brought some bucks to the area for sure.

5) What Whistler area Creeks/Rivers have you paddled? The Soo, Rutherford, Cheakamus, and Callahan Creek.

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery). How about top four? 1. Callahan Creek-waterfalls 2. Cheakamus-good access and whitewater 3. Soo-barely remember it. 4. Rutherford- I've sworn off 40 footers, so with three portages it's #4.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"? Maybe the Callahan.

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent Very good. There are few places in the world with this many opportunities to paddle in a short drive from town.

What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?  
Quality and quantity.

10) What limitations does Whistler have as a paddling area? I don't know. I'm not aware of any access issues, those seem to be a big negative for paddlers.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? The sport is growing, so any place that offers this much kayaking will get more popular also. Also, as I mentioned commercials. Nissan (HSI) picked this area because of the diverse landscapes and sports they could shoot in a close proximity to Whistler.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.  
Squamish, Hood River (OR), Leavenworth (WA)

## INTERNATIONAL KAYAK SURVEY

Name: Steve Whetman

Country of Residence: UK

1) When did you first paddle in the Whistler area? AUGUST 2001

2) How often do you paddle in the Whistler area? BEEN ONCE

3) What seasons/months do you tend to paddle in the Whistler area? SUMMER

Why did you choose Whistler as a paddling destination?

IT IS FAMOUS FOR PADDLING AND PARTYING

5) What Whistler area Creeks/Rivers have you paddled?

RUTHERFORD, ASHLU, ETC. TOO MANY TO REMEMBER, ABOUT TEN

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).

RUTHERFORD - TECHNICAL CHALLENGE, BIG DROPS

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

RUTHERFORD

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent  
EXCELLENT

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?

MANY RUNS IN SAME VALLEY, VARIETY OF STEEP CREEKS

10) What limitations does Whistler have as a paddling area?

ACCOMODATION EXPENSIVE

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why?

NO BECAUSE THE RIVERS ARE BEING DAMMED, BUT FOR EUROPEANS CANADA IS CHEAP TO TRAVEL

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.

CALGARY, COSTA RICA, WEST VIRGINIA, CALIFORNIA

## INTERNATIONAL KAYAK SURVEY

Name: Chris Onions

Country of Residence: England

1) When did you first paddle in the Whistler area? Sept 2000

2) How often do you paddle in the Whistler area? Once a year

3) What seasons/months do you tend to paddle in the Whistler area? Aug/ Sept

4) Why did you choose Whistler as a paddling destination?

Excellent: rivers, location, natural beauty, road infrastructure, people, alternative kayaking activities, mountain biking, shops, bars, accessibility, accommodation, telecoms infrastructure. Air/Rail infrastructure.

5) What Whistler area Creeks/Rivers have you paddled?

Calahan (Upper and Lower), Cheakamus, Rutherford, Ashlu (Lower, Middle and Upper), Skookumchucks, Skookum Creek + loads I can't remember !

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).

Callahan, Ashlu, Skookumchucks [*Lower Lillooet River?*], Rutherford, Skookum Creek

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent

Excellent .... the very best anywhere, I have traveled extensively across many continents and Whistler has it all ... !!

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?

Reliability of water levels, accessibility, the sheer number of rivers that can be paddled, the mix of river types ... short technical runs, multi day expedition lengths, play rivers, water quality

10) What limitations does Whistler have as a paddling area?

The lack of info into the specific water levels on each river within the region .... if this happened, and was easily available i.e. on the web. Whistler would be Perfect. (can I have a job, and live there pleaseeeee)

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? Whistler has only recently been thought of as a paddling destination. People are only now associating the snow with good paddling water levels in the remainder of the season. Whistler has also been the in many recent White Water videos, and I know that a lot of people from here in the UK, have seen my presentations of kayaking in Whistler and the BC area, and are currently booking this year's trips to come out to Canada/BC/Whistler ... (so watch out)

The great thing about Whistler is that there is just so much to do... If a family person wants to go on a kayaking holiday, but does not have enough days holiday from work to go on a separate family trip and a kayaking break, Whistler is just the place to go as it is possible to combine them both. Many locations around the world ... i.e. Norway, Iceland have excellent paddling .... but they are just so remote, that kayaking is the only thing that you can do there. Whereas Whistler has so much more to offer the rest of the family eg. cycling, skiing, sailing, shopping, touring etc ... Also, a number of non-kayakers who have seen my photos of the Whistler area, are also intending to travel there as well ... Kayaking in the Whistler area is getting very well known in the UK, so watch out .... a lot of boating tourists will be coming your way soon, along with me in the fall ..... see you there.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment. I can not ..... areas such as Iceland, Nepal, Turkey, South America have the quality of water, but do not have the accessibility, infrastructure, westernised culture etc to lure people there.

## INTERNATIONAL KAYAK SURVEY

NAME: Chris Joosse

COUNTRY OF RESIDENCE: USA

1) When did you first paddle in the Whistler area? 1998

2) How often do you paddle in the Whistler area? 3-4 times per year

3) What seasons/months do you tend to paddle in the Whistler area? Typically July, August, September.

4) Why did you choose Whistler as a paddling destination?

During the months of July, August, and September, BC offers the best selection of viable creeks and rivers in the Western Hemisphere. Farther south, most of the snowmelt is exhausted by that time of year.

5) What Whistler area Creeks/Rivers have you paddled? Callahan creek, Rutherford creek, Ryan creek, Capilano (okay, so it's nearer Vancouver) (and three others whose names I've spaced...)

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).

Callahan: simply beautiful in there. The water quality is wonderful, plenty of challenge, very continuous and exciting, but the first thing is that it's simply beautiful...and the playrun downstream is a hoot. ...and the canyon stretch downstream of there is amazing.

Rutherford: challenging, continuous, incredible, beautiful.

Ryan: World-class bigwater V at high snowmelt flows.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

I would rate Callahan, Rutherford, and Ryan as definitely world class, no question.

8) How do you rate Whistler overall as a paddling destination: Poor, OK, Good, Very Good, Excellent?

Excellent. Crowds aren't a concern, the water is amazing, camping and service infrastructure is outstanding. What's more, every nearby drainage hosts a full-fledged river and they're all a short distance... the concentration of world-class runs here is very thick. I will come back every year I can.

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? Probably the chief ingredients are the concentration of runs, the natural beauty, and the wealth of places to stay.

10) What limitations does Whistler have as a paddling area?

A lot of those runs are on the high end of class V during much of the summer. I won't go on some of them until late in the season, and most people aren't as adventuresome as I am. I'm guessing there are easier runs around, but if not this is the stomping grounds of the hardcore only.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? As I mentioned, the drawing power of high-volume, continuous class V/V+ is limited. I was introduced to it by my friends, had never heard of it before then. I suspect that word will get out about easier/more accessible runs eventually.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment: Hah. New Zealand, Chile, Austrian Alps... maybe. The Pacific Cascades are some of the best anywhere.



## INTERNATIONAL KAYAK SURVEY

Name: James Mole

Country of Residence: Canada

James is a professional kayaker who is a member of the Canadian Freestyle Team and the LiquidLogic Pro Team.

1) When did you first paddle in the Whistler area? I first paddled in Whistler in 1992.

2) How often do you paddle in the Whistler area? About 40 days a year.

3) What seasons/months do you tend to paddle in the Whistler area? June - Sept

Why did you choose Whistler as a paddling destination?

Because it is one of the few places that still has moving water in August. This is true for the general area as well as Washington, Oregon, Idaho, Montana and California. If any of these people want to paddle in August they have to head to Whistler or even further. Most professional kayakers are passing through Whistler now during the month of July and Aug. This is because the paddling is world class.

5) What Whistler area Creeks/Rivers have you paddled?

Callaghan, Rutherford Cheakamus, upper Cheakamus, Cal cheak, Soo, Green, Birkenhead, Brandywine, ect.

6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery). My favorite runs in Whistler are. 1 Upper Cheakamus. absolutely world class big water and fast. good surf waves challenging. 2 Upper calahan creek World class. A perfect example of good creeking. 3 Rutherford Creek, 4 Cal Chek, Fun play run great water and good for expert and intermediate alike. 5 Soo amazing creek.

7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?

Yes they are all world class and yes I have traveled the world.

8) How do you rate Whistler overall as a paddling destination: Poor, Ok, Good, Very Good, Excellent?

Excellent

9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)? Geographic location Diversity and number of runs, the amazing mix of granite and volcanic rock The high water flows in July and Aug.

10) What limitations does Whistler have as a paddling area? Limitations are that it could use more play runs and doesn't have a site that is directly conducive to teaching on any of the rivers. It has several play features but could use a couple more park and play wave features. A Freestyle park in Town would make it world class and attract a lot of media attention. The best example of this is Vail, Colorado, which is hosting an invitational event that is broadcast world wide on Fox network.

11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? Yes. One, because it is becoming more and more known among the top American paddlers. There are more and more paddlers hitting the pages of big magazines paddling Whistler creeks and rivers. The second is that the sport is growing at a great rate. And third people are learning that if they want to paddle in August Whistler is the closest and best destination.

12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment.

There are only two other easily accessible locations on the planet: Southern California and New Zealand.

## INTERNATIONAL KAYAK SURVEY

Name: Patch Bennett

Country of Residence: Canada

Patch is the Canadian Western representative for Dagger Kayaks.

- 1) When did you first paddle in the Whistler area? 1995
- 2) How often do you paddle in the Whistler area? 3 weeks+ a year
- 3) What seasons/months do you tend to paddle in the Whistler area?  
April, July, September
- 4) Why did you choose Whistler as a paddling destination?  
Close to Skookumchuck Narrows + had a great reputation for steep creeking & fun town
- 5) What Whistler area Creeks/Rivers have you paddled?  
Rutherford, Callaghan, Cheakamus, Calcheck, Soo, Birkenhead, Green, Cayoosh, Ashlu
- 6) Name your personal favorite "top 5" (more or less) Whistler area Creeks/Rivers and qualify what features make each run special (e.g. challenge, diversity, playboating, scenery).  
Upper Rutherford, Upper Callaghan, Upper Cheakamus
- 7) Are any of your favorite runs in the Whistler area worthy of the title "World Class Kayak Run"?  
Absaloodle :-)
- 8) How do you rate Whistler overall as a paddling destination: Poor, Ok, Good, Very Good, Excellent?  
Very Good, would be excellent if better camping was available.
- 9) What makes Whistler special as a paddling area (e.g. water levels, diversity of runs, number of runs, quality of runs)?  
Quality of runs and number of them in smallish area
- 10) What limitations does Whistler have as a paddling area?  
Umm, playboating is not great nor is camping
- 11) Do you think Whistler will become more popular in the future as an international destination for paddlers? If yes, why? If no, why? Yes, its in all the videos
- 12) Name a few other geographic regions with comparable diversity and opportunity for whitewater challenge and enjoyment  
Norway..... European Alps.

## **APPENDIX 6:**

### **Organizations and individuals contacted**

Whitewater Kayaking Association of BC (WKABC): Stuart Smith, Claudia Schwab  
Outdoor Recreation Council of British Columbia (ORC): Norma Wilson (no response)  
Ministry of Forests (Squamish Forest District), Recreation: John Crooks  
Ministry of Sustainable Resource Management, Tourism: Robert Gowan  
Resort Municipality of Whistler, Advisory Forest and Wildland Recreation Committee  
Captain Holidays Kayak and Adventure School, Whistler, BC: Don Butler, Sam Maltby  
Squamish Kayak and Adventure Center, Squamish, BC: Paula and Don Jamieson  
Canadian Paddlequest, Whistler, BC: Steve Whittall  
Whistler Outdoor Experience, Whistler, BC: Tim Malone  
Backroads Adventure Tours, Whistler, BC: Eric White  
Wedge Rafting, Whistler, BC: Mike Sadan  
Whistler River Adventures, BC: Brian Leighton  
Elaho River Adventures Co., Squamish, BC: Steve Moir  
Canadian Outback Adventures, Squamish, BC: Effie  
C3 Rafting, Squamish, BC: Jay  
Dave Alexander, film industry stunt and safety coordinator, Whistler, BC  
Tammy Shymko, locations manager, Squamish, BC  
Valley Fishing Guides, Whistler, BC: Clint Goyette  
Trout Country Fishing Guides/Cougar Mountain Adventures, Whistler, BC: Geoff Gerhart  
High Mountain Fishing, Whistler, BC: Kevin McPhee  
Whistler Fishing Guides, Whistler, BC: Dave Brown  
Whistler on the Fly/Whistler Outdoor Experience, Whistler, BC: Chris Gage  
Whistler Fly Fishing Ltd., Whistler, BC: Brian Niska  
Sea to Sky Reel Adventures, Whistler, BC (no response)  
Adventure Travel Society: Jerry Mallett, Aspen, CO  
Wavesport Kayaks, (Confluence Watersports Co.), Trinity, NC: President, Keith Wallace  
Watermark Inc. (manufacturer of Perception and Dagger kayaks), Easley, SC  
Perception Kayaks and Dagger Kayaks, VP Marketing: Mark Pate  
Dagger Kayaks, Western Canada representative: Patch Bennett, Calgary, Alberta  
Necky Kayaks, Marketing director: Susan Beller, Ferndale, Washington  
Riot Kayaks, Sales representative: Veronique Dupius  
Liquidlogic Kayaks, Customer service: Chris Pedrick, Hendersonville, North Carolina  
Pyranha Kayaks, Canadian representative: Mike Ramsay, Ontario  
Scott Lindgren Productions/Driftwood Productions (cinematography), Auburn, California  
VideoLink, LLC (whitewater videography), Leavenworth, Washington: Eric Link  
Regional and international whitewater paddlers, too many to name (contact list on file at  
Confluence Environmental Consulting, Whistler, BC)

## APPENDIX 7:

### International River Grading System

The following information based on Smith (1995) and Outdoor Recreation Council (no date) is generally consistent with the international river grading system. Note that the characterizations of overall river grades detailed at right are presented for general information only.

CLASS	GRADE
<b>Class I:</b> Moving water with few or no obstacles. Passages are wide open and easily seen from the river.	<b>Grade One:</b> Suitable for novices in kayaks and canoes.
<b>Class II:</b> Rapids with small obstacles and regular features. Passages are open and obvious without scouting, but may require manoeuvring.	<b>Grade Two:</b> Suitable for intermediate paddlers in kayaks and canoes.
<b>Class III:</b> Rapids with irregular features that require manoeuvring to negotiate. Passages can be narrow and features such as hole and irregular waves must be run to negotiate the rapid. Risk of injury.	<b>Grade Three:</b> Suitable for experienced paddlers in kayaks and whitewater canoes.
<b>Class IV:</b> Rapids with highly irregular features. Complicated passages that often include vertical drops and may require scouting to find safe routes. Linked manoeuvres are required in convoluted passages. Risk of injury and possible risk to life.	<b>Grade Four:</b> Suitable for expert paddlers in kayaks and whitewater canoes.
<b>Class V:</b> Rapids with violent and highly irregular features. Extremely congested passages that almost always require scouting to determine the safest routes. Most class V rapids include vertical drops and require running large scale features in a complex series of manoeuvres. Definite risk of serious injury and possible risk to life.	<b>Grade Five:</b> Suitable for expert paddlers only in kayaks and whitewater canoes with specific whitewater training and/or experience, under expert leadership.
<b>Class VI:</b> Rapids with extremely violent and unpredictable features where experts require considerable advance planning and scouting to determine possible passages. All class VI rapids require paddlers to negotiate vertical drops and very large scale features. Definite risk to life. Generally only possible at specific water levels.	<b>Grade Six:</b> Suitable for teams of expert paddlers only in kayaks and whitewater canoes at specific favourable water levels and only after careful study, with trained and experienced rescue team in position.

