A

CULTURAL

FRAMEWORK

FOR CANADIAN

HERITAGE

RIVERS

2nd Edition

January 2000

CULTURAL FRAMEWORK

TABLE OF CONTENTS

ACKNOWLEDGMENTS

FOREWORD

This document, *Version 2* of the *CHRS Cultural Framework*, is the result of a decision of the Canadian Heritage Rivers Board in 1997 to test the original version over a period of three years and to revise it on the basis of experience gained over the three years. There have been twelve nominations to the CHRS since the original framework was published, and several of these have applied its thematic structure to descriptions of cultural heritage values. Two assessments of existing theme representation have been undertaken since 1996, the first by GeoHeritage Planning in 1997 and the latest by Nick Coomber Heritage Planning in 1998. Discussion with planning staff of CHRS jurisdictions, an analysis of the twelve nomination documents, and experience from undertaking the two framework-based assessments were the foundations for redrafting of the framework.

1. Acceptable element representations were narrowed to include only those that can be subject to traditional protected area planning and management. This therefore excludes resources and features which are not tangible and *in situ* within the immediate environment of the river. Thus, values such as documents and off-site artifacts are now no longer acceptable representations of the framework.

2. It was found that there were numerous representations of certain elements of the 1997 framework. These elements were therefore judged to be more significant components of Canada's river heritage

than first thought. Where possible, they were redefined and subdivided. The present framework, however, still stops short of the important but complex process of weighting themes and assessing resources that represent themes.

3. While the 1997 framework was comprehensive, it allowed for inclusion of some activities which were of little heritage value because of their modernity or environmental harm, or because they were basic human activities which were ubiquitous. Thus, for example, any representation of hydro-electric power generation, which is now an element of the *Resource Harvesting* theme, must have some type of redeeming historical significance. The ubiquitous activity of human consumption is now only of interest where it occurs on a large scale and has some historical value.

4. It was found in the last framework assessment that there were no representations on any rivers in the CHRS of 29 of the 88 elements of the original framework. While it was possible that this had occurred only by chance and the situation would be "corrected" in time, or that there were actually representations but they were not being reported, it was considered more likely in most cases that the 29 elements were difficult to represent, either because of an obscure definition or extreme rarity. In either case, it was judged in most cases that these elements should be combined with others or dropped.

vii

In this version of the framework, the 7 themes of the original framework are reduced to 5, the 22 sub-themes are reduced to 15, and the 88 elements are reduced to 60. Of the 28 elements which were eliminated, 12 were dropped entirely and 16 reorganized under other sub-themes and elements. 9 completely new elements were added. Since 76 of the original 88 elements are retained somewhere in the present framework, it may fairly be stated that 86% of the original framework is retained in *Version 2*.

Nick Coomber
December 9, 1999

SUMMARY

This *Version 2* of the *Cultural Framework for Canadian Heritage Rivers* is a second attempt to classify the historic connections between rivers and human activity in Canada. The five themes, fifteen sub-themes and sixty elements are closely based on those contained in the first version of the framework published in 1997. The intent is to represent each element of the framework by "cultural resources" located on Canadian Heritage Rivers.

The themes, sub-themes and elements reflect categorizations and other terminology of the *Canadian Heritage Rivers System Objectives, Principles and Procedures* (1984) and in the *Guidelines* (1991) but are essentially an independent creation intended to classify all manageable river heritage in Canada.

THEMES AND SUB-THEMES

1. Resource Harvesting
   Fishing
   Shoreline Resource Harvesting
   Extraction of Water
2. Water Transport
   Commercial Transportation
   Transportation Services
   Exploration and Surveying
3. Riparian Settlement
   Siting of Dwellings
   River-based Communities
   River-influenced Transportation
4. Culture and Recreation
   Spiritual Associations
   Cultural Expression
   Early Recreation
5. Jurisdictional Use
   Conflict and Military Associations
   Boundaries
   Environmental regulation

The framework is built around the concepts of human use of rivers and the influence of rivers on human activities. It distinguishes these from other human activity that is not river-related.

The framework offers a common vocabulary and approach to the cultural dimension of Canada's river heritage, and may be used to classify the aspects of that heritage that are effectively commemorated by rivers that are already in the system, or may be nominated to it in future. The framework also offers definitions and distinctions that river managers can use to prepare inventories, evaluate resources, and develop appropriate management tools for the sites and *in situ* artifacts that represent a river's importance to the lives of people over time. Applying the framework to individual rivers will help to illuminate the river's role in Canadian history, clarify the role of the river in the CHRS, and assist in setting management priorities.

Representations of a river's human heritage are "cultural resources". Some are large and substantial, like weirs and buildings; others are as insubstantial as native pictographs. All are in their original locations or *in situ*. Each Canadian Heritage River is itself a cultural resource, since designation recognizes its cultural meaning and value to all Canadians, particularly to people who have used it.

A summary of the framework is essentially the contents of Chapter 2. Other chapters contain discussions of its background, formulation and implementation.

1.0   INTRODUCTION

1.1 Background

 The Canadian Heritage Rivers System (CHRS) is a co-operative federal-provincial/territorial program. Rivers included in the System are those that are formally recognized by the Canadian Heritage Rivers Board, and Ministers of managing governments, as possessing outstanding heritage value. The System has grown rapidly during its first 15 years and, at the time that this document was prepared, comprised nominations of 34 rivers or sections of rivers located in every province and territory.

One of the principles of the CHRS is that each government has the right to identify rivers with heritage value, to nominate them for inclusion in CHRS, and to manage them once they have been included. The federal government is only one member of the Board that oversees the development of the program. Its jurisdiction is limited to federal crown lands — chiefly Parks Canada lands and the territorial North, where federal jurisdiction is normally shared with the territorial governments. Rivers located elsewhere may only be nominated by provincial governments.

Unlike the selection process for national parks, the selection of heritage rivers is not under the direction of a single national agency that can identify rivers that are either representative of Canada or outstanding from a national perspective. Both territories and most provinces have prepared systems plans for rivers within their jurisdictions.

These plans are being used to help the governments in question to identify potential heritage rivers and set priorities for their possible nomination to CHRS.

Since every jurisdiction nominates rivers according to its own priorities, without intergovernmental co-ordination, the resulting system is unlikely ever to be completely representative of Canada's river heritage. If a representative system did emerge from this multi-jurisdictional approach there would in fact be no way of knowing it had happened and when to stop adding components. Parks Canada, as the lead federal agency in the CHRS, is committed to encouraging member governments to adopt a national perspective on the development of the System. This is set out in Parks Canada's *Guiding Principles and Operational Policies* (1994:65-66). In partial fulfillment of this commitment, the 1997 cultural heritage framework was presented for voluntary implementation by members of the Canadian Heritage Rivers Board, which adopted it as a guideline in 1997.

1.2   Purpose and Objectives of the Framework

This cultural heritage framework will give managers responsible for rivers a systematic basis for identifying and assessing rivers for possible nomination to the CHRS. By describing the possible cultural values illustrating the human activities that affect and have been affected by rivers, this framework can help foster the protection of

a balanced cross-section of cultural river-related values in Canada.

The purpose of the framework is to help conserve a balanced representation of Canada's cultural river heritage for its future management and interpretation from a national perspective. The objectives of the framework are:

1. To encourage the adoption of a standardized approach among CHRS governments to the identification, documentation and evaluation of rivers' cultural values;

2. To provide governments participating in the CHRS with a method of assessing how rivers in their jurisdictions can contribute to the cultural heritage represented by the CHRS; and

3. To provide a tool which the Board can use to measure the amount Canada's cultural river heritage that is represented in the CHRS.

By enabling classification of those values that are already represented in the System, the framework will allow managers to identify gaps and duplications. It will also allow recognition of those values that are special within the System or, in other words, those which are rare or unique from a national perspective, and which are therefore of relatively greater importance in setting nomination and management priorities.

1.3 Parameters of the Framework

A number of preconditions, or parameters, were required of this framework by the mandate and principles of the CHRS and, particularly this latest version, by practical considerations:

i)   Only *Canadian* cultural resources and values are addressed; since the rivers to be commemorated through the CHRS program must have at least one bank in Canada, the themes must be based on human activities that actually occurred in Canada.

ii) The framework addresses the relationship of cultural resources to *rivers* in Canada, not to Canadian history as a whole.

iii) To maintain the CHRS principle that *all parts of Canada* have a river heritage that is worthy of recognition, the framework was required to acknowledge regional variations in human activities across Canada. This enabled the framework to allow for the manner in which the significance of an activity can vary in time and space - an activity that may be archaic and unrepresentative in one place might be more significant at the same time in another part of the country.

iv) The framework is not a plan that identifies *specific rivers* that should be included in the System. This prescriptive approach would conflict with priorities, often developed through provincial and territorial systems plans, of member governments. These governments may choose voluntarily to adopt this

framework, either individually or as a Board.

v) The framework could be applied either separately or together with a parallel natural heritage framework. During preliminary consultations on framework approaches, participants often expressed the view that Canadian heritage rivers should be managed holistically and that separating natural and cultural values was a retrograde step. It was, however, decided to develop separate frameworks for several reasons:

- A common framework would conflict with the principle of the CHRS that rivers may be included for either or both their natural heritage values and their cultural heritage values.
- Systems planning processes for national parks and national historic sites are separate and distinct, an important national precedent;
- Some important rivers contain outstanding natural or cultural values but not both, and some would transgress either natural or cultural integrity guidelines;
- There would be few benefits for cultural resource management through separate frameworks since management of Canadian Heritage Rivers is normally holistic in encompassing both types of heritage values as well as recreational values.

vi) Framework elements must be defined so that they can be represented by

cultural resources which:
- are found *in situ* within a river's immediate environment;
- have historical significance and merit;
- are evidence of human activities related to a river.

1.4 Optional Approaches

Several optional approaches to a cultural framework were identified before work began. A list of these options is presented here, with a brief explanation of the choices that were made.

i) **Complete the provincial/territorial systems plans — the status quo**. Completed provincial and territorial systems plans vary in their approaches, but in general, their cultural components are less developed than their natural components. This does not meet Parks Canada's commitment to develop a balanced approach to river-related history across Canada. Even if a balanced system occurred by chance, provincial and territorial systems plans could not indicate if this were the case.

ii) **Extract river-related themes from existing historical thematic frameworks.** Using the National Historic Parks Systems Plan, this might have worked if all river-related human activities could be neatly divided from activities that did not involve rivers. This is not feasible. Adopting this approach could also magnify or distort some of the idiosyncrasies of existing frameworks. Various historic parks and sites

frameworks were, in fact, examined for this project, but were not helpful in organizing the themes.

iii) **Develop a regional classification of river-related activities.** Such influences as climate, natural resources, and the physical character of rivers do affect the variety of human use of rivers in different parts of Canada. But it proved impossible to establish regional boundaries that would reflect both the diversity of river-related human activities and the ways in which these activities change from one area to another. Moreover, some cultural resources are significant simply because they are not typical of the region where they are found, e.g. evidence of cultivation by pre-contact Aboriginal people on the Red River in Manitoba. Decisions of this sort are best made on a case-by-case basis and no general criteria could be established.

iv) **Rely on chronological classifications of river-related activities.** This approach would assume that there was such a thing as, say, a "typical" 18th-century river. Such an approach might work in a small country, one in which settlement goes back a long time and in which the main phases of economic development had been relatively uniform across space and time. Such a country has little in common with Canada. Rivers were used in Acadia and New France in the 17th century in ways that did not reach the Prairie provinces until the mid-19th. Chronological classifications would have to be severely qualified by a wealth of additional context to account

for regional and topical differences.

v) **Establish a national advisory body to CHR Board.** This approach would be expensive and would not necessarily remove the need for frameworks. A comparable Board, the Historic Sites and Monuments Board of Canada, strongly advocated the preparation of national thematic studies to help in its own deliberations. A national advisory body for the CHRS's Board might have great value in deciding on the application of a framework, but would not necessarily remove the need to prepare one.

vi) **Use a combination of some or all of the above.** Not all of these options are mutually exclusive. Some actually lend themselves to being combined.

The sixth option was chosen. Elements of options one to four are in fact present in the cultural framework described here. Other Boards' or agencies' historical frameworks, as well as provincial and territorial CHRS systems studies, demonstrated the value of a thematic approach to understanding river-related cultural heritage. In particular, *A Topical Organization of Ontario History* (n.d. 1975?) proved useful in providing not only thematic concepts but also a format for this framework to follow, introducing each major theme by a narrative section that emphasizes its context, both from region to region and over time.

1.5   Overview of Framework Design Process

This framework was developed within the

general context of the *Canadian Heritage Rivers System, Objectives, Principles and Procedures (1984)* the primary guiding policy of the program to which all participating governments agree to adhere. Also of importance are the more detailed operational policies contained in the *Canadian Heritage Rivers System Guidelines* which were adopted at various times by the CHRS Board and published together in September, 1991. In 1997, an eighth guideline, *Guidelines for the Implementation of National Frameworks*, was added by the CHR Board. The analysis of these policies, and in particular the selection guidelines (see section 3.1 below), was followed by:

- comparison with previous historical frameworks designed for provincial and territorial historic resource management systems, for Parks Canada, and for the United States National Parks Service;
- analysis of provincial and territorial CHRS systems studies and CHRS nomination documents;
- research in scholarly sources in the fields of Canadian history and historical geography, and studies of water use, river history, and cultural landscapes;
- consultation with specialists in cultural resource management disciplines;
- development of a draft framework comprising a comprehensive list of river-related activities, combined and split into various themes, sub-themes and elements;
- review of drafts by the CHR Board members; peer review;
- testing of themes, sub-themes and elements against information contained in nomination documents;
- modification, splitting and combining

of sub-themes and elements based on empirical evidence gained from the testing in both the original and present versions of this framework; and
- a three year practical application period to thoroughly test the practicality of the framework.

Because research and consultation are ongoing processes, the framework and the approach that underpins it cannot be regarded as static. New historical studies are being produced all the time, and relevant older ones may yet come to light. River environments and the people who value them are also not static; what are described today as "contemporary assets" may be the cultural resources of later generations. It also seems likely that the personal and professional perspectives of those who apply this framework to future nomination documents and management plans may also lead to further refinements.

2.0 FRAMEWORK THEMES AND NARRATIVES

The taxonomy developed for this framework is a classification of the ways in which people use rivers and their resources, and the ways in which rivers affect human activities. The framework consists of a hierarchical set of themes divided into sub-themes, which are then divided into elements. Like themes, sub-themes are based on types of, and influences on, river-related human activities, so the most concrete level of description is provided by the framework's sixty different elements. These elements can be represented by cultural resources, which are defined here as *in situ* evidence of valued tangible evidences of past human activity or belief.

Every effort has been made to devise a comprehensive set of themes, sub-themes and elements, and to keep overlaps and arbitrary divisions to a minimum. It is acknowledged that with the passage of time and changing views about the past, different river-related human activities will be identified as significant, particularly those of recent origin, and new items will be added to the list of elements.

The five themes which comprise this framework are:
1. Resource Harvesting
2. Water Transport
3. Riparian Settlement
4. Culture and Recreation
5. Jurisdictional Use

The themes and their sub-themes are designed to be of approximately equal weight, based on the peculiarities of

Canadian history and variations in geography. For example, irrigation, which might be a theme or sub-theme in many countries, is only part of an element in Canada, while evidence of fishing, which elsewhere might be an element within the riparian settlement theme, is of such importance in this country that it comprises most of a sub-theme on its own. However, whether or not the framework components are of equal weight should not detract from the overriding concept that the themes, sub-themes and elements are primarily a means of providing a logical taxonomy for the range of uses and activities associated with Canadian rivers.

THEME NARRATIVES

While the themes, sub-themes and elements of this framework are essentially generic, the following narratives are intended to provide essential information about what resources and values might be considered to represent them at the element level. The narratives should give some direction on how to draw the difficult distinctions between activities that are river-related, and similar activities that are not. They are designed to help river managers recognize where specific sites or artifacts fit in the framework as an aid to organizing research studies and nomination documents. Some of the following theme descriptions offer examples of regional and chronological variations to help managers associate sub-theme elements with the cultural heritage of the rivers they manage,

and to judge whether or not associated cultural resources should be included in assessments of a river's potential for inclusion in the CHRS. The narratives may also help to classify new elements as they are identified in the future.

To help those who undertake this research make these distinctions, abstract themes used elsewhere such as "resource utilization," "industrialization and urbanization," "regionalisation" (Gentilcore. 1978:3) have been avoided as much as possible partly because these aggregate a number of different human activities, some of which are river-related and some of which are not. The human activities on which the framework is based may not be intrinsically river-related, but it is intended that there be minimal difficulty in identifying whether or not possible representations of these activities are functionally or physically connected to rivers. Each theme narrative is followed by a list of exceptions that should eliminate most ambiguities in the assignment of cultural resources to specific sub-theme elements.

The *Selected References* at the end of each theme description include titles of some national overview studies, as well as local works that are particularly good examples of how historians can sketch the relationship of rivers to human activity. A fuller bibliography, including many excellent works not mentioned in this chapter, can be found at the end of this document.

THEME 1: RESOURCE HARVESTING

The concept of "harvesting" river resources offers a way to summarize many ancient activities that are central to subsistence and commercial uses of water in many countries. In the past, a considerable amount of the nation's food has come from flowing water and from wetlands. The harvesting of fish has been and continues to be the single most important such activity in Canada, but a number of aquatic or amphibious animals, as well as birds and plants, have helped make rivers a source of commodities of various kinds including foodstuffs and materials for domestic use. In this theme, river water itself is also considered to be a resource that is harvested, both as a consumable liquid and as a source of gravitational inertia that can be converted into usable power.

Sub-theme 1.1: Fishing

The extraction from the river of in-stream riches is a longstanding tradition of Aboriginal and early European peoples. The activity of fishing has involved numerous species and types of fish, many of which exhibit regional and temporal patterns that are beyond the scope of this framework, although nevertheless valid representations of the elements of this sub-theme. Fish have been harvested by both Aboriginal peoples and Europeans through a great variety of mechanisms (hooks, traps, weirs, nets, spears, etc.) for both domestic and commercial consumption.

The elements of this sub-theme therefore focus on *what* types of fish were harvested (fin or shellfish) *when* fish have been harvested (prehistoric or historic times), *by*

THEME 1. RESOURCE HARVESTING

1.1 Sub-theme 1: Fishing
Elements:
1.1.1   Aboriginal prehistoric fishing.
1.1.2   Historic domestic fishing and processing.
1.1.3   Commercial fishing.
1.1.4   Collection of shellfish.

1.2 Sub-theme 2: Shoreline Resource Harvesting
Elements:
1.2.1   Trapping of fur bearing animals.
1.2.2   Collection of aquatic plants.
1.2.3   Hunting of birds and land animals.
1.2.4   Mines and quarries in bed or banks of river.

1.3 Sub-theme 3: Extraction of Water
Elements:
1.3.1   Direct drive power generation.
1.3.2   Human consumption.
1.3.3   Agricultural extraction.
1.3.4   Industrial extraction.

---

whom (Aboriginals or Europeans), and *why* (domestic or commercial purposes). Because of the large number of possible combinations of these characteristics, the four elements of this sub-theme have been assessed as combining the most significant sets of characteristics which are most likely to have significant *in situ* representative evidence.

Aboriginal prehistoric fishing (1.1.1) and **historic domestic fishing** (1.1.2), while distinguished by different time periods, may be represented by similar types of cultural resources. Besides vestiges of mechanisms for catching fish that may still be *in situ*, common representations of these elements include sites where fishing habitually

---

occurred, and where *in situ* artifacts may be excavated, processing facilities such as smoke houses and fish processing plants, and, in the case of ice fishing, huts and other artifacts which have historical significance. **Commercial fishing** (1.1.3) is a relatively recent activity and sometimes not easily distinguished by artifacts from non-commercial fishing. Where *in situ* resources are not fully revealing, independent documentary evidence may have to be consulted.

The fourth sub-theme element is specific to a type of fish, rather than the nature of the fishermen, their historical period or purpose. The **collection of shellfish** (1.1.4) is an activity pursued since time immemorial and still exists on many rivers, particularly estuarine rivers such as the Hillsborough. Shell middens are clear evidence of prolonged Aboriginal habitation of shoreline sites and, with more contemporary in situ artifacts and tools, serve as excellent representations of this element.

Sub-theme 1.2: Harvesting Shoreline Resources
Other biotic resources provided by rivers include mammals and birds which inhabit shorelines and aquatic environments and are procured for different reasons in a variety of ways by Aboriginal peoples and by Europeans. The sub-theme shoreline resource harvesting includes a number of activities related to well-known aspects of Canadian history.

The first theme element reflects Canada's most important early "staple trade," the fur trade. The historic Canadian fur trade relied heavily on **trapping of fur bearing animals** (1.2.1) to harvest the skins of beaver,

muskrat and other river-dwelling mammals, and these activities, mainly carried out by Aboriginal people away from the trading posts, may be represented by trap-lines and related artifacts and sites associated with fur processing.

Some shoreline resources are almost delivered up for human use by rivers, and need only be gathered. These would include the subject of the second theme element, **collection of aquatic plants** (1.2.2), which, like fishing, has ancient origins and contemporary examples. Notable plants include wild rice for food, reeds and willows for housing, and various plants for medicinal purposes. Relevant plants need not be growing in the river water, provided that they are clearly dependent on the river and would not survive in another environment.

The third theme element reflects shore-based **hunting of birds and land animals** (1.2.3). This activity is distinct from trapping in that different techniques are used to capture the animals and the purpose was food, not pelts. While the hunted animals may not be aquatic, the hunting of them frequently occurred in relation to rivers and shorelines. A staple for Aboriginals, and the means of survival of many explorers and fur traders, ducks, geese and other birds found near rivers, along with their eggs, were an important food source, although few artifacts remain.

Cultural resource representations associated with shoreline hunting are often not obvious: many sites are evident mainly because they are located at distinctive natural features, such as wetland habitats where waterfowl were hunted, bluffs and cliffs where buffalo and other large mammals were forced to

jump to their deaths, narrowing gullies and man-made pits used for deer hunting, or the ancient barren-land caribou trails that converge on crossing places on rivers such as the Kazan and Thelon rivers. Occasionally, there may be some physical evidence of hunting, such as bones, arrowheads and spearheads, or even the hiding places of hunters such as duck blinds.

In this *Version 2* of the framework, this sub-theme is expanded to include a fourth element, the harvesting of the river's abiotic resources from riverside **mines and quarries** (1.2.4). These resources are chiefly mineral resources exposed in marketable concentrations either by the erosive action of flowing water, or by making deposits accessible by rivers for the transport of miners and minerals. Gold is the most famous of these, gravel and sand the most abundant. Others could include almost any underground resource located adjacent to a river and extracted by Aboriginals, such as soapstone and ochre, or by Europeans, such as coal and ores mined through valley-side horizontal shafts, and building stone.

Sub-theme 1.3: Extraction of Water
Also grouped under this theme is the use of water itself as a resource. Representations of this sub-theme reflect many of the European uses of rivers in the more densely populated parts of Canada and refers to removal of the water itself from the watercourse for direct drive power generation, urban, agricultural and industrial uses.

Temporary extraction for **direct drive power generation** (1.3.1) for mills was perhaps the first instance of water diversion.

Both the technology used to generate hydraulic power and its influence on Canadian life, particularly on economic life, have changed dramatically in the past 150 years. At one time direct drive mills sprang opportunistically near farms and woodlots, doing work that might otherwise have been done by wind, man, or animal power. Later, hamlets, villages, and towns grew up at developed mill sites where transport routes and raw materials came together with labour and capital (see also Sub-theme element 3.2.3).

Direct-drive water power, exploited at the edge of a river, usually makes a visible impact on the stream, the banks, and surrounding areas. Water mills were frequently built at the mouths of tributaries joining a larger river; others were built at falls along the course of rivers and streams of various sizes. These are traditionally classified by the commodity they processed— wood, wool or paper. Hydraulic power was also exploited along improved navigable waterways such as the Welland and Lachine canals. Mill-ponds, flumes, dams, water-wheels and turbines, and mill buildings are the principal structures or features of these sites.

Representations of the sub-themes may reflect both the purpose and scale of the mills and hence their impacts on both river environments and related human activities, as organizing criteria. The scale of development depends on a number of factors including the size and regime of the river. Small-scale developments may be significant in themselves, or interesting as regional variants of the theme.

Humans have always taken water from

rivers for domestic consumption and the ubiquity of this activity reduces its heritage value. Large scale extraction of water for **human consumption** (1.3.2) is a recent phenomenon which has cultural value only if the structure, such as a purification or filtration plant or water tower, is original and old, or pioneering in some way. Some water was also taken from rivers in historic times in the form of ice for domestic purposes. However, representations of this activity may only be significant where they occurred on a commercial scale. Representations of the activity of extracting water to process sewage, while an important contemporary use of rivers, should not only be of historical value but also should not result in the discharge of contaminated water into a river. Pioneering attempts to improve water quality are also acknowledged under Theme 5 *Jurisdictional Use*.

Agricultural extraction (1.3.3) of water normally involves stock watering and irrigation, both fairly recent phenomena and which may entail its mixture with fertilizer residues and animal wastes, before returning the water to the stream. Representations should have some historical value by virtue of age or originality.

Industrial extraction (1.3.4), such as for pulp and paper manufacturing, brewing, or hydro-electric power generation may not only consume water in its original form but also use it to flush away wastes into holding ponds, and sometimes back into the river itself, at various stages of the manufacturing process. All representations of this element therefore must be involve the industrial use of water itself and have value in terms of antiquity or originality, not be the cause of environmental degradation.

Of all modern industrial uses, hydroelectric power generation is perhaps the most significant. The power takes two main forms: direct current and alternating current. Of these, alternating current is far more important. Direct current suffers from the same disadvantage as direct-drive water power; it cannot be transmitted a long distance from the place where it is generated. In the 1890s the development of AC current, which can be transmitted long distances, allowed industry and settlement to flourish away from the sources of hydraulic power. This technology brought dramatic changes to rivers far from the centres of concentrated settlement and intensive industry. The Toronto market, for example, draws its hydro power from as far away as the Niagara River to the south and the upper Ottawa River to the northeast. To ensure a focus on the heritage value of this human activity, representations of hydroelectric power generation should be locally consumed and have redeeming innovative connotations in a Canadian context

EXCEPTIONS:
- Fishing that occurred for pleasure rather than for food is considered a part of the *Culture and Recreation* theme (Theme 4).
- Many of the more capital-intensive (and labour-intensive) aspects of the fur trade used rivers in ways that are covered under other framework themes: *Water Transport* (Theme 2) was an important aspect of the early fur trade.
- Seasonal or permanent fur trade posts and forts illustrate early patterns of *Riparian Settlement* (Theme 3).
- Water diversions are not included under this theme. Any representations of these cases having heritage value should be

assigned thematically according to the purpose of the transfer, whether an early hydro-electric project (theme element 1.3.1 *Direct Drive Power Generation*) or, like the Grand River's historic supply to the Welland Canal, for purposes of *Water Transport* (Theme 2).

- A number of other modern harvesting activities may not have heritage value e.g. for depositing waste water, factory effluent and municipal sewage. These are dealt with under Theme 5, *Jurisdictional Use* if any heritage value can be assigned.

SELECTED REFERENCES:

Anderson, Letty. 1988. "Water-Supply," in Norman Ball, *Building Canada,* pp. 195-220.

Eastern Irrigation District. 1985. *Tapping the Bow*, Brooks, AB.

Holzkamm, Tim E., Victor P. Lytwyn, and Leo G. Weisberg. 1991. "Rainy River Sturgeon: An Ojibway Resource in the Fur Trade Economy," in Abel and Friesen, *Aboriginal Resource Use,* pp. 119-40.

Leung, F. n.d. "Direct Drive Waterpower in Canada, 1607-1910". (Ottawa: Parks Canada Microfiche Report No. 27).

McClelland, Catherine. 1987. *A History of the Yukon Indians: Part of the Land, Part of the Water.*

Moodie, Wayne. 1991. "Manomin: Historical-Geographical Perspectives on the Ojibwa Production of Wild Rice," in Abel and Friesen, *Aboriginal Resource Use,* pp. 71-80.

Morton, James W. 1970. Capilano: The Story of a River (historical survey of the City of Vancouver's principal public water supply.)

Den Otter, A.A. 1988. "Irrigation and Flood Control," in Norman Ball, *Building Canada,* pp. 143-68.

Robertson, B. R. 1986. "Saw power; Making Lumber in the Sawmills of Nova Scotia. (Halifax: Nimbus Publishing and the Nova Scotia Museum).

Roos, A. 1988. "Electricity", in Ball, *Building Canada,* 169-94

THEME 2: WATER TRANSPORT

This theme is defined as *the movement of goods and passengers by water,* either as floating bulk (timber, notably) or more commonly in watercraft, using both natural streams and modified channels. The associated *in situ* resources are any in-stream or riverside structures that were installed to serve travellers and ease navigation and the flow of that traffic, to build or service the craft, or to help control floating bulk goods. Surviving artifacts are numerous, including the rivers and remains of watercraft themselves, and the many sites associated with the maintenance and operation of boats and their contents.

Sub-theme 2.1: Commercial Transportation

River navigation was once the most important means of travelling around Canada, using, from time immemorial, canoes or, more recently, other human powered craft such as York boats. These craft are intrinsically associated with Canada's evolution and represent a very significant part of Canada's river heritage. Artifacts associated with **prehistoric trade** (2.1.1) times are rare and usually comprise only the route itself. Representations of river use for **historic human powered freight** (2.1.2) by voyageurs are relatively numerous, in both original and replica form, and may include trade goods some of which are *in situ* by virtue of spills and accidents such as occurred on the French River. The routes themselves are well documented in records of explorers, fur traders, military men and immigrants.

Many of Canada's major rivers are navigable by **powered commercial freight** (2.1.3) vessels, either in the river's natural state or after the installation of structures to control water levels and circumvent falls and rapids. A distinctive pattern, particularly in the north and west, has been fleets of stern-wheelers plying broad, flat rivers—notably the Mackenzie, the Saskatchewan, and the Yukon—during a short but critically important summer season of open water. These routes, some the direct descendants of the canoe routes and York boat brigade routes of the fur trade companies, offer much of the colour and interest attached to the transport theme at a national level. Artifacts associated with these vessels can

be found in the form of a few surviving ships and shipwrecks or drowned cargos.

However, in a practical sense, many rivers that were once navigable for commercial purposes are now used only for recreational purposes or are not navigated at all. For example, two centuries ago canoes on the Ottawa River carried most of the trade goods and fur returns of Montréal's trade with the Prairies and the Athabasca basin. For some years after Confederation, politicians and other dignitaries habitually travelled between Ottawa and Montréal by river steamers. Navigation along the Ottawa River is now almost entirely recreational.

Not all freight on Canada's rivers has been carried in watercraft; an important Canadian activity has been the **surface bulk transportation** (2.1.4), primarily of logs. Hallett (1987) documents federal government investment in improving waterways for floating logs in bulk. The Wright family built the first Canadian timber slide at the Chaudiere Rapids in 1829. Other private works followed but were taken over and supplemented by the government Board of Works after 1843. By the 1880s, there were 83 separate works on the Ottawa and its major tributaries, the Madawaska, Gatineau, Coulonge, Black, Petawawa, and Dumoine rivers. Next in importance were the works on Quebec's St. Maurice River, begun in 1851 and still, uniquely, in use today. Other substantial investments were made on the Trent and the Saguenay, with smaller establishments on the Richelieu and the Spanish River. In 1909, a project was attempted 125 miles above Edmonton on the North Saskatchewan; this was an attempt to create a storage pool and sluice gates at a point where logs were often lost during

spring freshets. This project, the only federally managed one in Canada outside of Quebec and Ontario, proved too costly to operate and was abandoned in 1911.

Sub-theme 2.2: Transportation Services
Passengers and freight carried in river commerce are ultimately land-based "commodities" and must at some points on their journeys on Canada's rivers come ashore. Prehistoric use of rivers did not reach a stage of specialization that created the commercial and land-based services of European commerce and there are no known prehistoric representations of this sub-theme.

On the other hand, the European representations of this sub-theme virtually epitomize Canada's early European history through the progressive proliferation of **fur trading posts** (2.2.1) through the country over a period of three centuries. Some posts were mere log shacks thrown up in the woods for a single winter; other were major fortified settlements housing hundreds of people. Depending on their scale, these posts served many purposes not only for collecting, warehousing, trading, packaging, loading and shipping furs and other freight, but also for ancillary needs such as shelter, food, defence, governance, jurisprudence, recreation and medicine. Those parts of fur trade posts and forts which were used for onshore services, such as wharves and warehouses, would represent this theme, but also of interest in this sub-theme are the small posts whose primary function was the provision of on-shore services to fur traders.

On occasion, fur traders would pause long enough to make their journey easier on the next occasion through **navigational improvements** (2.2.2). Original Aboriginal

portages along some of the most difficult parts of the main fur trade route, such as the upper Ottawa River and the Mattawa River, were modified by clearing and widening, sometimes using logs, stones to level the path and create firm steps, and in some cases rudimentary rails were laid on which to roll or skid their craft. On the Hayes River, small dams were constructed to raise water levels and shorten portages.

These were the precursors to major dams, weirs, channels, locks and even lighthouses constructed in the 19th century to create canals. In addition to the extensive and well known canal systems of this era in eastern Canada, the Rideau, Trent-Severn, Chambly, there are other small single-lock canals scattered along Canada's major rivers, including the Red, Ottawa and Yukon rivers. Next to modern locks such as the "Soo" on the St. Mary's River, are often the original, smaller wooden locks in various states of preservation but nevertheless representing this sub-theme.

In addition to navigational improvements to the rivers themselves, river transportation in Canada depended on the provision of onshore services for both passengers and freight.

Shipyard (2.2.3) services for craft and cargoes were numerous. Vessels were typically constructed beside large rivers, and taken onshore for repairs (rather than into dry docks). Important transhipment points and industrial waterfront sites frequently had wharves, ramps and other services for loading vessels whose remains today attest to the importance of river boats as carriers of freight. River boats themselves can still be viewed slowly deteriorating where they were

winched ashore after their final season.

Facilities for loading and provisioning passengers (2.2.4), were relatively rare, and remnants of, for example, waiting rooms, rest-houses, hitching posts, and occasionally hotels would not be as common as the sites where this activity is known to have occurred in the past. Within larger forts and early settlements, however, it may be possible to identify particular buildings and structures that were associated with passenger transport, as opposed to freight transport or other activities.

Sub-theme 2.3: Exploration and Surveying
Many of the early uses of navigable rivers can be closely associated with significant Euro-Canadian exploration and route surveys. While few of the routes were unknown to Aboriginal people, the contribution of the explorers or route surveyors was to link together various segments of older routes, and to make these routes better known in order to establish or strengthen a territorial claim by a colonizing power and to open up routes for migration and settlement.

The earliest European exploration of the country by river, other than what may have been attempted by Vikings, was by the intrepid **French explorers** (2.3.1) and coureurs du bois. Their legacy, built over two centuries prior to the end of the Seven Years War in 1763, extends over much of Canada in the form of archaeological sites and more frequently in place names. Subsequent **British explorers** (2.3.2) are perhaps better recognized for their western exploration of the Athabasca country and the quests of David Thompson and Alexander

Mackenzie for a route to the Pacific through the Rocky Mountains in particular, although their legacy also extends around Hudson Bay and the north.

Surveys for commercial and transportation purposes are also included under this element. This is perhaps epitomized in the Palliser and Wheeler survey expeditions which led to the construction of two Trans-Canada railways through the river valleys of the Rocky Mountains. Apart from railway infrastructure which could indirectly represent this element, the cultural resources which best illustrate it are the routes themselves, often recorded in detail in journals and traceable along valley bottoms, across shallow rivers, along portages, down valley sides and over interfluves. Sites of documented events and incidents, such as that of the Wheeler's near death experience due to a kicking horse beside the river of the same name, are also representations. Other toponymic cultural resources include "La Chine" near Montréal and the "Committee Punch Bowl" in the Rocky Mountains, and monuments and historic markers erected by later generations.

Rivers were used for **migration and settlement** (2.3.3) in all parts of Canada. The first immigrants to Canada arrived by boat, although few ventured up rivers to land their human cargoes. Small groups and individuals later moved along rivers to take possession of their new holdings. Acadian settlements in the three Maritime provinces were mostly located on river estuaries, which were modified through *digues* to hold back tidal water and provide pasture and hayfields. British immigrants went further inland and opened up forests along river valleys, creating new farmland on valley

bottoms and lower slopes. The influx of United Empire Loyalists in the late 18th century followed established river routes, and created unique settlement patterns along the Saint John River valley and other rivers in eastern Canada (see element 3.1.4 in *Riparian Settlement*).

The opening of western Canada by exploration and survey expeditions led to the immigration of Europeans to the Prairies but this area was settled primarily by overland routes. Most settlements on the Pacific coast, on the other hand, were founded by overland migrants, first as a trickle by parties such as the Overlanders, then a flood, using the rivers, passes and valley routes discovered by the 19th century explorers.

While the significance of this sub-theme to Canada's development and the important role of rivers in this cannot be doubted, representation of this entire sub-theme is highly subjective. Apart from some campsites and a toponymic legacy, it is only the documented routes themselves that must be counted as representations of the intrepid exploration, surveying and migration activities of early Europeans.

EXCEPTIONS:
- Certain aspects of travel on water have been classified elsewhere in this framework. Travel for recreational purposes, including yachting and recreational canoeing, is included with Theme 4, *Culture and Recreation.*
- Military travel is an element of Theme 5, *Jurisdictional Uses.*
- Types of river crossings, used for transportation *across* rivers, are included in Theme 3, *Riparian*

Settlement. Settlement patterns resulting from immigration movements are also included under this theme.

SELECTED REFERENCES:

Barris, Theodore. 1978. *Fire Canoe; Prairie Steamboat Days Revisited* (Toronto: McClelland and Stewart).

Passfield, Robert. 1988. "Waterways," in Ball, *Building Canada,* 113-42.

THEME 3: RIPARIAN SETTLEMENT

Shoreline dwellings, singly or in clusters, form part of the cultural landscape of many rivers, particularly in southern Canada. They are essentially a land-based means of using rivers for economic, social and other needs. The siting of dwellings, and their design, location, spacing, and arrangement are often manifestations of the influence of rivers on economic and social activities.

As this framework evolved, many of the practical reasons people settled beside rivers were recognized in other themes. For example, water travel and resource harvesting are all river-dependent activities that in turn influence individual decisions and the growth of settlements. In this sense, "settlement" is often a consequence of some other human activities that are more directly or more obviously associated with the way people use the river itself.

The focus of this theme, therefore, is on the strikingly direct influence of rivers on the landscape of the settled shoreline, including types of individual dwellings and community adaptations to rivers. Rivers frequently determined how agricultural land was divided up through major land surveys and, as mentioned above, transportation patterns and river industries often influenced the direction, style, and pattern of all types of buildings, not just dwellings.

The three sub-themes used here categorize representations on the basis of three observable manifestations of human practicality: individual decisions to live beside rivers; communities developed beside

---

THEME 3: RIPARIAN SETTLEMENT

3.1 Sub-theme: Siting of Dwellings
Elements:
3.1.1   Shoreline seasonal dwellings.
3.1.2   Riverside homesteads and farms.
3.1.3   Permanent riverside dwellings sited with respect to rivers.
3.1.4   Dispersed dwellings in settlement patterns.

3.2 Sub-theme: River-based Communities
Elements:
3.2.1   Permanent shoreline Aboriginal settlements.
3.2.2   Fortification-based communities.
3.2.3   River industry-based communities.
3.2.4   River crossing-based communities.

3.3 Sub-theme: River-influenced Transportation
Elements:
3.3.1   Ferries and fords.
3.3.2   Road bridges.
3.3.3   Rail bridges.
3.3.4   River-influenced roads and railways.

---

rivers; and the adjustment of transportation systems to respect rivers.

Sub-theme 3.1: Siting of Dwellings
Aboriginal peoples rarely ventured far from rivers and lakeshores. To do so was hazardous and without incentive, as few needs could not be met from being close to rivers. Many native groups migrated seasonally from one part of a river to another, their patterns decided upon on climate, fish runs, migrating herds, and tribal competition. They established **seasonal campsites** (3.1.1), which they abandoned

and established according to need. The archaeological record is particularly rich in these sites on most sizeable rivers. Where they are not known to have existed they can often be predicted by site characteristics.

However, there can be few more definitive manifestations of the impact of rivers on the lives of humans than an isolated **homestead or farm** (3.1.2) and associated buildings located beside a river, a landing place, and nearby livestock grazing by the water. Frequently, such buildings were built in the earliest European times by pioneering families. These still numerous buildings comprise one of the readily recognized components of Canada's river heritage.

Later **permanent riverside dwellings** (3.1.3) also took advantage of the many benefits provided by rivers, food, water, and transportation but were not always farms. Some were built by wealthy individuals on choice sites, others were simply built by labourers or descendants of pioneers. Riparian residences and buildings might be significant because of their particular owner or occupant, or because of a highly specialized special function. These buildings are located beside the river primarily because of the choice of their owner, although the functional relationship with the river may be weak. Some house facades would face the river, and the path to the river would lead from the front door. Usually high ground was selected to avoid flooding.

Building materials for farms and residences reflected contemporary styles, material availability and financial situations. The earliest European dwellings were almost all log. Later dwellings made use of stone,

shakes, shingles, clapboard and various combinations. A great variety of these, or their foundations, still exist as valid representations of this aspect of river heritage.

"Settlement patterns" are identified in the *CHRS Selection Guidelines* as a potentially major theme in Canada's river history. When this framework was prepared, the choice had to be made whether to entitle this entire theme "settlement patterns" or to define its scope to fit this framework. Using the term *riparian* (riverbank) allows the definition of this theme to be restricted to settlement patterns functionally related to rivers and within the sub-theme of *Siting of Dwellings*, restricts representations to residential and related structures physically close to rivers.

Settlement patterns of interest here are essentially **dispersed dwellings** (3.1.4) that are visibly organized according to some overall strategy or formal plan. Thus, buildings constructed within the seigneurial system in Quebec, with their narrow river lots which each have water access and a minimum hectarage, basically a dispersed planned community, would be an example. The uniformity of architecture in Loyalist farmsteads and other dwellings and their evenly spaced distribution along river valleys, such as the Saint John River, would qualify this as a cultural landscape. On the Upper Saint John River buildings characteristic of Madawaska Acadian culture can also be seen. Other examples can be seen on major rivers in western Canada, notably the Red River. In some cases, however, cultural landscapes can be seen where there is no overall lot plan or settlement strategy, yet the area has

homogeneity due to the ethnic or religious similarity of settlers, such as Mennonite and Hutterite communities in Manitoba and Saskatchewan.

Sub-theme 3.2: River-based Communities
Communities begin with the construction of a single building that is sited in a particularly advantageous site. For natives, such a site might be a place that was close to fishing and hunting grounds, sheltered, not subject to flooding, relatively free of summer insects, and comfortable during the winter. Such sites may or may not be near a river, but could become **permanent Aboriginal settlements** (3.2.1).

A priority of the very earliest first European settlements in Canada was security. Hostile natives and occasional endangerment from wildlife led the first traders and settlers to seek security of fortified stockades. Some fur trade posts were referred to as "forts" because of their defensive capabilities which would serve regionally based trappers and traders. Later fortifications were often much more substantial and were constructed to protect people and property from rival European powers. In both cases, these forts were invariably constructed beside rivers for means of access to markets and munitions. **Fortification-based communities** (3.2.2) often developed in the shadow of this security and, while few exist today in their original form, the heart of many Canadian cities contains the preserved remnants of this origin.

"European" communities developed where certain key features were found along rivers. These were most often places where a river could be crossed or where the speed of the river provided a source of power.

Sometimes the two coincided, as rapids are often be found in conjunction with narrows. The founding of a mill beside rapids was frequently the signal for community development. Thus although the various types of mills themselves are recognized elsewhere (Sub-theme 1.3 *Water Extraction*) as representations of harvesting water itself as a resource, residences and other structures and components of settlements which reflect their origins as **river industry-based communities** (3.2.3) are recognized here.

This element may also be used to contain representations of early buildings and structures in settlements which developed as a result of other river-based industries, such as breweries, foundries, factories, and even early hydro-generation. Again, however, representations must, however, not only have historical value but also must not be damaging to heritage values through, for example, waste disposal and other forms of pollution.

Similarly, communities whose origins can be traced to the presence of a bridge, ferry or ford are a significant component of Canada's river heritage. While bridges or remnant structures of bridges, ferries and fords, are included under the following sub-theme which deals directly with river crossings, residences and other buildings associated with the early development of the community, are important representations of **river crossing-based communities** (3.2.4).

Sub-theme 3.3: River-influenced Transportation
Rivers do not present only resources and advantageous benefits to humans. For the land-based travellers who succeeded the coureurs du bois and fur traders, rivers also

comprised obstacles that had to be crossed. This somewhat anomalous aspect of river heritage cannot be commemorated as part of the water transport theme as it reflects land-based movement and a departure from the essence of this theme.

The earliest means of crossing rivers was to find a location where water was sufficiently shallow to allow pedestrian or horse traffic to cross. Where this could be achieved at most times of the year the location might become known as a **ford** (3.3.1). Some still exist, but most are now superseded by bridges or abandoned. Where rivers did not allow for fords, enterprising pioneers set up **ferries** (3.3.1) and made livelihoods by collecting crossing fees.

There abound in Canada examples of bridges which cross rivers, most dating from the 20th century. Of interest in this sub-theme are the early examples of various types of **road bridges** (3.3.2), described according to age, building materials and structure. Design terminology would include features such as wood, stone and steel, and single span, multiple span, arch, box, bow-string, trestle and so on. Similar characteristics may be used to describe **rail bridges** (3.3.3) over rivers.

Sites for various types of river crossings, especially bridges, not only influenced the original choice of location for villages and towns, but also the consequent patterns of development of road and rail networks. Thus, the final sub-theme element, **river-influenced roads and railways** (3.3.4), is exemplified by the innumerable early roads and railways that follow river valleys and which hug the sides of river valleys, and which cross rivers at opportune sites.

Classic examples can be seen beside the Kicking Horse River where both the Trans Canada Highway and the CP Railway were constructed primarily to accommodate the course of the river. There is an enormous amount of infrastructure that could potentially represent this sub-theme and caution is needed to ensure that what s identified is significant by virtue of its age, design or originality.

EXCEPTIONS:
This theme excludes many of the more general aspects of settlement, such as pioneer agriculture and the development of population centres away from rivers. Settlement activities that are either not river-related, have no heritage significance, or are related to the river through some more specific activity are excluded. Examples respectively would be:
- Bridges that do not cross rivers, communities based on land-based resources such as mining, are not river-related.
- Modern road and rail bridges, and all tunnels under rivers, are considered to have no heritage significance.
- Water extraction for irrigation is dealt with under Theme 1, *Resource Harvesting*.
- Facilities developed where bulk is broken e.g. at portages and harbours, or which were used for shipbuilding, are dealt with under Theme 2, *River Transport*.

SELECTED REFERENCES

Dunham, B. Mabel. 1947. *Grand River* (Toronto: McClelland and Stewart).

Fisher, Sidney Thornton. 1985. *The Merchant-Millers of the Humber Valley; A Study of the Early Economy of Canada* (Toronto: NC Press).

Hargrave, Joseph James. 1871. Red River (Montréal: John Lovell); see especially Chapter 12, "Annual Routine in Red River Settlement", 155-73.

THEME 4: CULTURE AND RECREATION

Rivers provide both a reason and a place for artistic expression, spiritual life and leisure. To many people who live near rivers or travel to them often, the cultural connections between people and waterways may be more important than the physical or economic uses that dominate most of this framework. Manifestations of this theme take many different forms, perhaps more so than other themes. They also demonstrate the occasional possibilities of claiming river-relatedness where there is little or no functional relationship of features to rivers themselves.

Because such values are so culturally conditioned, there is some risk of neglecting the importance of art and spirituality when these human activities are combined thematically, as they are here, with recreation. Many devotees of wilderness recreational canoeing in Canada see educational and spiritual value in their activity; some even find in it important images of national culture and identity. The late canoeist Bill Mason's real passion was for painting landscapes he saw from his canoe. Likewise, Aboriginal pictographs are apparently works of **artistic expression** but often express spiritual beliefs or values as well. While there are reasons to split culture and recreation into one or more themes, not only are the connections between them probably too close to allow this but *in situ* opportunities to represent them are not sufficiently common to justify separate themes.

THEME 4: CULTURE AND RECREATION

4.1 Sub-theme: Spiritual Associations
Elements:
4.1.1   Sacred or spiritual sites.
4.1.2   Ritual or ceremonial structures and sites.
4.1.3   Aboriginal burial places.
4.1.4   European burial places.

4.2 Sub-theme: Cultural Expression
Elements:
4.2.1   Riverside museums, art galleries and commemorative structures.
4.2.2   Culturally associated sites.
4.2.3   River-based cultural landscapes.
4.2.4   Architectural responses to river locations.

4.3 Sub-theme: Early Recreation
Elements:
4.3.1   Recreational boating.
4.3.2   Angling.
4.3.3   Land-based touring.
4.3.4   Organized river recreation facilities and clubs.

Sub-theme 4.1: Spiritual Associations
Much of what is regarded as spiritual is, by definition, intangible and ubiquitous. This sub-theme is, however, concerned with the *in situ* physical manifestations of spiritual associations with rivers. While not denying the importance of the ethereal and remote components of belief systems and spirituality, among both Aboriginal and Europeans, the management imperative of the CHRS program requires that representations of **sacred or spiritual sites** (4.1.1) can be located, described and protected. These can therefore vary greatly according to global and local belief systems. For Aboriginals, certain natural features such as cliff faces, river rocks or springs

may have sacred properties, and some have been commemorated with pictographs and petroglyphs. For Europeans, sites where miracles or tragedies occurred may become sacred, often commemorated with simple crosses. In both cases representations would be of places which are judged through a belief system to be naturally sacred.

Quite separate from spiritual sites are those places which have no intrinsic sacredness but where rituals and ceremonies occur. Such representations would include both **ritual and ceremonial structures and sites** (4.1.2). Structures will be predominantly of European origin, notably churches, while sites may be both Aboriginal and European. In both cases there must be a relationship with a river either through location or function.

Of importance in all cultures are spirit dwelling places, usually where the dead are buried. In Canada, these are almost entirely simple **burial places** (4.1.3 and 4.1.4), either individual graves or groups of graves; rarely is there any major structure associated with the burial ground, such as a mound, although sites will often be marked by tombs, gravestones, fences, memorial artifacts, and in the case of northern graves, rock piles. The major distinctions between **Aboriginal** (4.1.3) and **European** (4.1.4) cultures requires that their burial sites be separated into two theme elements.

Sub-theme 4.2: Cultural Expression
Nominations of Canadian heritage rivers frequently make reference to buildings such as museums which contain artifacts related to river heritage, and to sites which commemorate historic events and people associated with the river. While, in

themselves, these buildings and sites have no intrinsic heritage value, this framework recognizes the significance of these to the cumulative value of a river's heritage.

Thus, **riverside museums, art galleries** (4.2.1) and other structures which are located in the river environment and which contain cultural artifacts associated with the river are valid representations of this sub-theme. Valid representations would also include reconstructions or animations of historic sites and events. A very common cultural expression that would represent this sub-theme is the historic site marker, whose establishing organization can often be used to determine the significance of the site. Plaques erected by the Historic Sites and Monuments Board of Canada are one of the few representations of this framework that can be determined to commemorate an event, person or site of national significance.

Since not all significant events, persons or sites are commemorated by historic markers, the framework allows for their inclusion through the theme element **culturally associated sites** (4.2.2). This element does not, however, permit the inclusion of sites unless they have cultural associations with the river. Thus, the event must have occurred on or near the river, or the person must have had some longstanding or otherwise significant relationship with the river. Examples could include the homes of famous artists, authors, politicians and so on, or buildings which housed significant events or were the focus of important movements or beliefs in Canadian history may be considered representations of this sub-theme element.

A rather special expression of culture is the

concept of **river-based cultural landscapes** (4.2.3) and regions. The term cultural landscape includes designed waterfronts that have aesthetic appeal, but it also encompasses industrial and commercial river-fronts. An important type of representation are regions of cultural significance having no built component, such as the Aboriginal homelands of the Ojibwa in the St. Mary's River area and the Caribou Inuit of the Kazan River barrenlands. It has been noted above that rivers themselves may be cultural resources, and as such can be considered as parts of cultural landscapes.

Haslam (1991:153) has noted that human activities rarely develop uniformly on opposite sides of a river. Towns that face each other across water compete, and one side will usually dominate the other. Often these towns not only play different roles in the regional economy, but are considered to have different characters. Whether the river-boundary is international or merely municipal, contrasts in the cultural landscapes or practices on opposite banks of rivers are often of considerable historical and social interest.

Finally, this sub-theme allows for the inclusion of structures that contain **architectural responses to river locations** (4.2.4). These responses might be small features such as landscaping or facades and doorways which face rivers, or raised foundations, provided that they are of some historical value in terms of age or originality. Alternatively, representations may be entire buildings, such as lodges and cottages whose design typifies a style of riparian residence, such as those built along the Restigouche River in the early 20th

century. These later structures would also represent theme element 4.3.4 below.

Sub-theme 4.3: Early Recreation
The recreation component of this theme is not meant to duplicate or replace the evaluation of a candidate river's recreational values, which forms a key part of virtually all CHRS nominations. By addressing particularly the pioneering or early nature of recreational activities, these sub-theme elements recognize that both commercial and private recreational pursuits can give rise to, over time, a heritage character beyond their mere practical enjoyment; and the recreational value of rivers, particularly *wild* rivers, has a place in Canada's river heritage and culture that needs to be accommodated in this framework.

Of all recreational activities pursued on rivers, two stand out as having heritage value in terms of their longevity and the heritage associated with their equipment. Thus **recreational boating** (4.3.1) routes followed by early tourists, primarily by canoe, are in themselves of cultural value and can be represented through this framework. Some canoe routes were made popular among early canoeists by publications such as Paine's 1907 account of canoeing the Shelburne River. Campsites and portages that are known to have may have been used by these people are more specific representations.

Similarly, sites along a river course associated with early **angling** (4.3.2), pursued strictly for recreational purposes, are valid representations. Representation of such sites could include placenames or numbers assigned to salmon pools, or even entire river sections, or camps and lodges

specifically constructed for anglers, or even ice-fishing huts that have some historical significance.

While not claiming that recreational boating and angling are the only aquatic forms of recreation pursued on rivers, they are by far the most significant from a heritage standpoint. Another river-related form of recreation that may have significant cultural value is **land-based touring** (4.3.3) of river valleys. Early forms of this recreation were in three main activities: hiking, horseback riding and motoring. There are numerous accounts of early hikers travelling up the valleys of the Rocky Mountains. The Alpine Club of Canada was established to provide hiking information, construct shelters and to rescue stranded hikers. Horseback riding was once the only effective means of reaching certain passes and valleys, and national park wardens still use this means of transport. In recent years, driving for pleasure has become the most popular outdoor recreational activity in North America. Scenic roads and parkways have been built along river valleys to accommodate this activity since the early 1920's, when the Banff-Jasper Highway, now called the Icefields Parkway, was constructed.

This sub-theme also allows for recognition of **organized recreation facilities and clubs** (4.3.4) constructed to house clubs and other organizations with river recreational purposes. The facilities could include local canoe and angling clubs or internationally significant organizations such as the Atlantic Salmon Club at the mouth of the Restigouche River. Club facilities for participants in canoeing, rowing, and sailing may also be included where they have

historical value. Private and public camps, lodges, cottages and other overnight accommodation sites built for participants of river recreational activities or built beside a river may also be incuded. On a larger scale, hotels such as Jasper Park Lodge beside the Athabasca River, represent this element.

EXCEPTIONS:
- The serendipitous location of a historic marker near a river, with no functional relationship to the river, would not enable its inclusion as a representation of the *Cultural Expression* sub-theme.
- Most of the themes in this framework describe activities that create cultural landscapes. Even *Resource Harvesting* (Theme 1) contributes to the creation of cultural landscapes, since river-front industrial sites are among the phenomena to which this term can be applied.
- Fishing for domestic or commercial consumption would be considered *Resource Harvesting* (Theme 1) rather than a recreational activity.

SELECTED REFERENCES

Hodgins, Bruce W. and Margaret Hobbs 1985. *Nastawgan: The Canadian North by Canoe & Snowshoe. A Collection of Historical Essays* (Toronto: Betelgeuse Books).

Landscape and Urban Planning. 1988. *Special Issue: The Landscape of Water,* Vol. 16, Nos. 1-2 (October).

Manz, David, ed. 1993. *Water and the Wilderness: Development, Stewardship, Management; Proceedings of the 46th*

Annual Conference of the Canadian Water Resources Association, Bandy, Alberta June 16-19, 1993 ([Cambridge ON]: Canadian Water Resources Association).

Paine, Albert Bigelow. 1907/1982. *The Tent Dwellers* (London: Outing Publishing; reissued by William Macnab and Son, Halifax).

2.3.5 THEME 5: JURISDICTIONAL USE

The use of rivers by governments is a natural result of their vital importance to the economic, political and social development of any politically organized group. Rivers both focus and divide different kinds of human activity, including cooperation and rivalry. Rivers can be used for purposes of state both physically e.g. as routes of invasion, or symbolically as boundaries. The concept of rivers as boundaries may have been familiar to Aboriginal peoples, as they were often the sites of prehistoric conflict between rival Aboriginal groups, although records of actual bloodshed are scarce.

In European times, rivers have themselves been employed as tools in government administration as boundaries and for military purposes, as military supply and invasion routes, natural moats, and "lines in the sand". In peacetime, their significance as important natural ecosystems as well as sources of renewable resources has more recently been recognized through government intervention to protect rivers and their associated natural ecosystems.

Sub-theme 5.1: Conflict and Military Associations

The topic of military associations with rivers has arisen in this framework in Theme 2 *Water Transport* in regard to fur trade forts, and in Theme 3 *Riparian Settlement* in regard to settlements developed around fortifications. Neither of these themes address actual conflicts that occurred at these sites and elsewhere near rivers. This sub-theme includes sites of skirmishes,

---

THEME 5: JURISDICTIONAL USE

5.1 Sub-theme: Conflict and Military Associations
Elements:
5.1.1   Aboriginal internecine conflict.
5.1.2   Aboriginal/European conflict.
5.1.3   European internecine conflict.
5.1.4   Military expeditions.

5.2 Sub-theme: Boundaries
Elements:
5.2.1   International borders.
5.2.2   Interprovincial and inter-territorial boundaries.
5.2.3   Land use boundaries.
5.2.4   Transboundary rivers.

5.3 Sub-theme: Environmental Regulation
Elements:
5.3.1   Flood control.
5.3.2   Improvements in water management.
5.3.3   Improvements in aquatic ecosystem management.
5.3.4   Regulation of river access and use.

---

massacres, pitched battles and other outbreaks of hostilities that occurred near or in relation to rivers.

Often, military confrontations occurred beyond the scope of fortifications, particularly those that occurred between warring **Aboriginal** (5.1.1) peoples, in prehistoric and historic times. **European conflicts with Aboriginal** (5.1.2) and other **European powers** (5.1.3) were more frequently settled in or near the confines of a fortification. Because of the importance of rivers as foci for settlements, and means of transportation, and other necessary elements of early Canadian life, rivers were almost

always involved in the conflicts that occurred. Some battles actually occurred on rivers and estuaries, such as the Battle of Restigouche and several major British-French naval confrontations on the St. Lawrence River and the mouth of the Hayes River.

The mounting of **military expeditions** (5.1.4), particularly in inland parts of Canada, required that troops were transported efficiently and quickly to the conflict site. Until the advent of railways, the only method of transportation was via river systems, normally using available water craft, but sometimes involving long marches over the frozen surface. The European historical record clearly documents the use of rivers for such purposes, campsites that were used and other temporary structures.

Sub-theme 5.2: Boundaries
Boundaries are delineated in order to separate nations, parts of nations, and various subdivisions of these parts. While the infinitely variable North American landscape is criss-crossed by a patchwork of artificial straight line boundaries, some boundary delineators recognized the natural advantages offered by rivers in making spatial divisions more rational. The obstacle that rivers pose to human movement made them a convenient marker, particularly where topography was uneven or vegetation, climate, or accessibility a limiting factor. Depending on these factors, and negotiated settlements between governments and private landowners, boundaries were set in mid-stream or along high water marks, or at a set distance from shorelines.

Three types of administrative boundaries

using rivers are recognized in this sub-theme. Canada's **international borders** (5.2.1) with the United States comprise a sub-theme element on its own because of the significance of this border in Canadian history and the considerable number of rivers that are presently used to supplement the straight lines of the 49th parallel and the Alaska border, as well as a number of other rivers which temporarily marked the international border. Any of these rivers or sites on these rivers which currently or once represented the border itself, events related to its negotiation, or its surveying and marking are valid representations provided that there is some historical value.

A large number of rivers have been used in Canada's past to mark **interprovincial and inter-territorial boundaries** (5.2.2). While many are straight line boundaries, many others, especially in eastern Canada, follow rivers or watersheds. Any of these are appropriate representations where some historical value, such as a local impact on early settlement, sites of border disputes or negotiations, can be documented.

Boundaries between privately owned properties are innumerable in Canada and unless they represent heritage value and are associated with rivers in some way would not normally be considered representations of this sub-theme. Historic **land use boundaries** (5.2.3), often between public and private lands, used rivers as convenient boundaries in the absence of formal surveys. These may sometimes be of significance, particularly where public land uses differ significantly from private land uses, as in the case of military bases, Indian Reserves and protected areas. An example that already exists within the CHRS would be the

Kicking Horse River which marks part of the boundary of Yoho National Park established in 1887. However, the use of the Tatshenshini River to mark part of the Kluane National Park boundary dates from the 1960's and has less heritage value.

Rivers have not only comprised boundaries, but have also been the means of crossing them. These **transboundary rivers** (5.2.4) have been the subject of jurisdictional conflict as well as a means of transportation. Particularly where boundaries are straight, as in western Canada, some rivers, by their very nature, must at some point cross them. In some cases, considerable river traffic, legal and otherwise, used the means of passing across borders, such as on the Red River between North Dakota and Manitoba, or the Yukon River between Yukon and Alaska. Examples abound of movement between provinces, although because of the freedom of this movement from tolls and official requirements, there are few interesting examples.

Representations of this sub-theme element could include not only the rivers themselves but more importantly, structures built to accommodate the movement of passengers and freight across borders, such as customs houses or structures known to have been used by smugglers, provided that there is some historical significance to the site or activity.

Rivers which cross provincial, territorial or land use boundaries may also have heritage value, especially if they were used for transportation. Such rivers would also be valid representations where the river valley was an important factor in the construction roads or railways of historical significance.

Sub-theme 5.3: Environmental Regulation
The pervasive use of rivers as boundaries has been insinuated into almost all aspects of jurisdictional land organization. But, from an ecological standpoint, since rivers are actually the heart of ecosystems, river basins are the natural ecumene, and watersheds are the natural dividers, not rivers. Perhaps in recognition of this type of "abuse" of rivers, jurisdictions have in modern times acted to mitigate the actions and threats that our own activities pose to river environments on which plants, animals and human economic activities depend.

We, as jurisdictions, also defend ourselves, our works, and landscapes that we value against natural forces, such as wave action, tides and, especially in the case of rivers, floodwater. This sub-theme therefore has two quite distinct aspects: management of the river itself in order to protect the property of riparian land users, and the regulation of river uses in order to protect the river.

Estuarine dykes date back to Acadian times, and remnant examples can still be seen in Maritime Canada. The earliest river **flood control** (5.3.1) structures date from the late nineteenth century, when they were often associated with canal building. However, because of the impact of these structures on the natural integrity of rivers, they may result in the systemic exclusion of rivers possessing them. A canalized river system, such as the Rideau or Trent-Severn Canal, could qualify a river to become a Canadian heritage river if its control structures or associated buildings possess significant cultural or historical value. Thus, dams, diversions, impoundments, and even dredges

may be representations of this sub-theme if they have historical value.

There is a considerable range of human activity, mostly recent, associated with improving river values, or mitigating damage already done. Some of these activities have been aimed directly at **improvements to water management** (5.3.2) others at **improvements in aquatic ecosystems** (5.3.3). Sites associated with legislation, advocacy movements, and *in situ* mitigative structures such as early fish ladders, fish hatcheries, and water quality monitoring stations are some of the tangible representations of this theme. For these to be considered under this theme, however, they must be of significance from the standpoint of being early or original in Canada, or both.

Regulation of river access and use (5.3.4) includes two components: the introduction of regulations to control river use, and the wholesale dedication of river basins and parts of basins as protected areas. Of interest are sites where early water access and use regulations were implemented and parks and reserves which were established in the late 19th century and the early part of the 20th century when the conservation movement was in its infancy.

EXCEPTIONS:
- While many of explorers and surveyors were sponsored by governments to explore and claim new territory, the use of rivers for these purposes is included under Theme 2, *Water Transport.*
- Use of rivers located in protected areas for recreational purposes is included under Theme 3, *Culture and Recreation*.

SELECTED REFERENCES:

Andrew, Jeanne, ed. 1993. *Flooding; Canada Water Book,* (Ottawa: Environment Canada, Ecosystem Sciences and Evaluation Directorate).

Bankes, Nigel D. 1991. "The Board of Investigation and the Water Rights of Indian Reserves in British Columbia, 1909 to 1926'" in Abel and Friesen, *Aboriginal Resource Uses*.

Bradley, Cheryl, et al, eds. 1990. *Flowing to the Future; Proceedings of the Alberta's Rivers Conference May 1-13, 1989* (Edmonton: University of Alberta Faculty of Extension). This is large collection of short essays on different aspects of river management, from "multi-purpose use" to heritage river management.

Denis, Leo G. 1916. *Water Works and Sewerage Systems* (Ottawa: Commission of Conservation). Brief descriptions of the age, consumption, and other quantifiable attributes of 396 municipal and 132 privately owned water supply systems in Canadian municipalities in 1915. Supersedes Denis' earlier work (without sewage data) of 1912.

Dene Cultural Institute. 1989. *Dehcho: "Mom, We've Been Discovered!"* (Yellowknife: Dene Cultural Institute).

Harvey, Andre. 1983. "Promising Steps Toward a New Ottawa River Regulation", in Mitchell and Gardner (eds.), 99-108. This paper includes a good historical summary of water management in a section titled "A Task Molded by History."

Hooper, Thomas. 1967. "The Royal Navy Station at Ile-aux-Noix (1812-1839)", in Manuscript Report Series No. 167 (Ottawa: Parks Canada) 49-100.

Lee, David. 1976. "The Battle of the Windmill: November 1838," in *History and Archaeology,* No. 8, 102-08 (Ottawa: Parks Canada).

3.0 CONSIDERATIONS IN DESIGNING THE FRAMEWORK

The design of this framework required consideration of many factors including the basic parameters outlined in Section 1.3 of this document. Primary among these factors was harmonization with the *CHRS Selection Guidelines* which are used in deciding which rivers may be included in the System. Four of these guidelines are applied to the cultural resources of potential rivers and some of these have direct reference to historical themes.

In addition to CHRS selection guidelines, outside of the program's own policies, each participating government has its own policies and priorities, all of which take precedence, when necessary, over the framework. In many cases these policies and priorities are based not only on governments' heritage conservation policies but also on their own CHRS systems studies which have developed their own thematic classifications.

3.1 Adaptation of Framework Themes to CHRS Selection Guidelines

The CHRS selection guidelines for human heritage values (Parks Canada. 1984:14) name several examples of historical activities and themes with which a river's outstanding cultural resources could be associated. These have been used in provincial systems studies and in organizing many nomination documents. This framework does not use the same themes, so

the way in which the framework and selection guidelines can be applied together must be explained.

A river environment is judged to possess outstanding Canadian *human* heritage value if it meets one of the following four selection guidelines. References to human activities and potential framework themes are highlighted below.

CHRS SELECTION GUIDELINES

Guideline 1: [The river environment] is of outstanding importance owing to its influence, over a period of time, on the historical development of Canada through a major impact upon the region in which it is located or beyond; this would include its role in such significant historical themes as *Native people, settlement patterns, and transportation*.

Guideline 2: [The river environment] is strongly associated with persons, events, movements, achievements, ideas or beliefs of Canadian significance;

Guideline 3: [The river environment] contains historical or archaeological structures, works or sites which are unique, rare or of great antiquity;

Guideline 4: [The river environment] contains outstanding examples or concentrations of *historical or archaeological structures, works or sites* which are representative of *major themes* in Canadian history.

3.1.1 Interpretation of "Native Peoples"

The first guideline provides specific direction for the definition of themes. In particular, the reference to Native peoples required elaboration of Aboriginal activities in the framework.

The second guideline lists certain types of potential theme representations rather than actual themes or types of human activities. It is therefore of value primarily in guiding the implementation of the framework at which time the phrase "strongly associated" must be interpreted (see section 4.6 below).

The third guideline contains no direct implications for theme definitions referring, as in the case of the second guideline, only to types of potential theme representations. It has implications for implementation of the framework and it may be noted that the framework is helpful in defining the elusive qualities: "unique" and "rare". A simple count of the number of existing representations of any element (or regional/temporal variations) enables a quick assessment of rarity within the CHRS; a total of one will indicate uniqueness.

The fourth guideline contains direct reference to "major themes" of Canadian history but does not define what these are. The framework attempts to do precisely this and a discussion of how they might be defined is presented below in section 3.1.4.

This chapter thus discusses how themes and sub-themes were derived from Guidelines 1 and 4 (sections 3.1.1 to 3.1.4), including an explanation of how the guidelines were interpreted in developing the framework.

The first guideline lists "Native people" as a historical theme whose representation might be a justification for conferring outstanding Canadian value on a river. This framework's themes are defined as activities while the term "Native people" encompasses a spectrum of Aboriginal people's activities and therefore potentially a complex range of themes. Cultural resources associated with Native peoples' history and historic places can therefore be assigned at many places in the framework.

Two significant current trends in Native history are "inclusiveness" and Aboriginal authority over Aboriginal cultural resources, including traditional knowledge. In this regard, the following interpretation of the selection guidelines was made in formulating the framework. It is consistent with important principles of Canadian public policy towards Aboriginal culture that have arisen since the CHRS selection guidelines were adopted.

Until recently, social scientists and cultural program managers assumed that Aboriginal and Euro-Canadian history were separate; the most noteworthy events in Aboriginal history were thought to have occurred before contact with Europeans, and reliable documentation of pre-contact history ("pre-history" and "proto-history") was sought through archaeology. Textbooks and regional histories contained an obligatory first chapter on Native people and then largely omitted them from the narrative once Europeans were well-established in their former territories.

Academics and public agencies now recognize the continuity of Aboriginal experience; they acknowledge that First Nations preserve crucial elements of the culture and traditional knowledge of their ancestors, and that "contact" is no longer an absolute demarcation between two watertight categories of Canadian history, an Aboriginal history and a Euro-Canadian one. Much traditional knowledge and many ancient values have endured to the present, and Native people's understanding of archaeological sites needs to be respected.

For many Canadian cultural resource managers, the *Report of the Federal Cultural Policy Review Committee* (1982:11) offered a first exposure to this new approach to Native culture and history. The so-called Applebaum-Hebert Report argued for "a special place in cultural policy" for Aboriginal people. It asserted that "the cultural traditions of the original peoples are uniquely rooted in this country" and that "the original cultural traditions have a set of values and aesthetic standards which have not been easily accommodated within the usual structures and practices of federal cultural institutions."

All of this is important to the Canadian Heritage Rivers program. In the past 10 years, many systems studies and nomination documents have given special weight to archaeological evidence of pre-contact Aboriginal use of rivers. Some, however, also deal with the recent past and present (such as the Mohawk presence in the Grand River Valley) or with old sites of enduring significance, such as the continuous knowledge and use of healing springs along the Hillsborough River through periods of Mi'kmaq, Acadian, and Scottish occupancy

of those shores. In northern Canada, where the present inhabitants use the land in many of the same ways as their ancestors did for centuries, nomination documents assert with particular emphasis on the importance of traditional knowledge to an inventory of special places.

In this thematic framework, the river-related activities of Aboriginal people are accommodated under all five themes. The methodology for detecting and defining Aboriginal *in situ* representations of these themes on particular rivers will include the usual documentary and archaeological research, combined with consultation with traditional knowledge-bearers and other Aboriginal decision-makers.

3.1.2 Interpretation of "Settlement Patterns"

The first selection guideline also identifies "settlement patterns" as an example of a significant historical theme that may be river-related. In Canada, there are two overlapping senses of what settlement means. In some uses, the term seems synonymous with surveying and clearing land and bringing it into production. The term also has a more European sense which includes the development of villages and more densely populated places, in connection with many economic activities besides agriculture. As a theme, "settlement patterns" could encompass practically all of the more sedentary kinds of human activity, swallowing up many related thematic areas. In addition to that drawback, the phrase does not help to distinguish which settlement-related activities are most closely related to rivers.

In this framework settlement patterns are addressed in sub-theme 3.1 *Siting of Dwellings*: *Dispersed Dwellings in Settlement Pattern*. The main examples are survey systems, land-granting policies, and water resource allocation schemes that have been most strongly affected by the characteristics of adjacent rivers. The distinctive narrow-fronted river-lots of Quebec and Red River form one type of example, and the extensive irrigated districts of southwestern Alberta provide another.

A settlement is considered here to be river-related if river transport was essential to its early development and survival or if it grew as a result of the existence of a crossing of some type. Settlement patterns themselves, such as the Nova Scotian grants to Loyalists or the Ontario grid system, are not automatically river-related phenomena. Within a grid system, however, irregular-shaped lots and roads that follow rivers can be viewed as river-related. As a rough rule of thumb, a settlement activity has been accepted as river-related if the presence of a river led people to design land-holdings that clearly departed from regional norms.

A distinction should be made between this sub-theme element and sub-theme element 4.2.3 *Cultural Landscapes*. The latter are not usually the result of a survey system or over-reaching system of original land settlement visible from the air. Cultural landscapes are considered in this framework to be any outward signs of uniformity among dwellings or other structures or any land uses that have a large scale visible impact on the landscape. Thus, particular architectural styles, sometimes ethnically associated and not necessarily responding to a riverside location (sub-theme element

4.2.4), methods of cultivation, animal husbandry or woodlot maintenance that are found near rivers are examples. For riverside locations in more urban settings, building styles, cultural events and exhibits, and even ghettoes, are examples.

3.1.3   Interpretation of "Transportation"

The first CHRS selection guideline also identifies "transportation" as an example of a significant historical theme which could justify nomination of a river to the CHRS. This framework also includes transportation as the second of the five river-related themes of Canada's past. It is included under the theme title *Water Transport*. This title is intended to be inclusive of the conveyance of people and their baggage, the movement of goods in bulk, and the provision of ancillary services, and is organized according to the purpose of these activities. Often the routes and the technology of transportation were very closely related as in the case of fur trade routes which were used by canoes and York boats. This close relationship of location, activity and mechanism, and the numerous potential representations of them that exist in Canada, is reflected in the decision to make *Water Transport* a separate theme.

3.1.4   Interpretation of "Major Themes"

The fourth human heritage guideline states that a river environment may be recognized when it contains structures, works or sites that are representative of *major themes in Canadian history*. The expression "major themes" is not defined.

There may be as many interpretations of the term "major themes" as there are

jurisdictions in Canada. When the CHRS was created, many jurisdictions had already adopted thematic approaches to their programs of historical commemoration. In Parks Canada's case, two approaches have been considered. Seven major themes proposed by Gentilcore (1978) provide a thoughtful presentation of past human activity within the national parks system. His emphasis, however, was strongly economic, and cultural patterns in particular were (at best) accorded sub-theme status. The *National Historic Parks Systems Plan* (1981) is problematical for the opposite reason: its 79 themes are not weighted for their actual importance to Canadian history, as they were meant to be as theoretical and inclusive as possible.

In looking for definitions of the term "major", Canadian historians, not surprisingly, do not offer a consensus view of the difference between major and minor themes. In the early 1930s, for example, there seems to have been a broad agreement that governance, settlement, staple resource industries and economic development were the most important things to study and to teach. In the 1990s, many historians are using the concepts of class, gender, ethnicity and region to organize their efforts. These themes of the new social history are not, in themselves, independent of the earlier themes of governance, settlement and economic development, but they are thought of as better lenses for examining the causes and effects of changes in past human behaviour.

In the research community, strategic grants programs and special-interest conferences give some indication of changing priorities in research, but many of these are efforts to

accelerate research to fill niches in existing priorities, not to supplant old national priorities with new ones. Recent trends in grants and conferences are therefore not necessarily an indication of a consensus on what are "major themes" for Canadians to study today.

So far as the Canadian Heritage Rivers System is concerned, "major themes in Canadian history" can only be defined subjectively by people working from time to time within the system. The present framework is one such attempt. If it seems more at home among the scholarly priorities of the years before 1970, this is because that period was more preoccupied than the 1990's with the material expressions of human activity, which can more easily be represented by *in situ* tangible resources. In other respects the framework, particularly through Theme 4, *Culture and Recreation*, acknowledges the results of more abstract influences such as culture and spirituality to the extent that those themes are reflected in tangible representations of Canadians' past use of river environments.

3.2 Examination of Related Documents

3.2.1   Other Cultural Frameworks

Framework approaches are not common in historical commemorative or conservation systems; they are exclusively found in the domain of public agencies which manage a complex program of protection and commemoration over quite a broad area. For obvious reasons, *national* framework studies are even more rare, and often employ a

different methodology from approaches developed for smaller regions.

Between 1977 and 1981, Parks Canada commissioned two detailed thematic approaches to Canadian history. The first, written by Gentilcore (1978), was designed to help national park interpreters address the most appropriate national themes as well as obvious local ones when they presented the human history of their parks. The second, the *National Historic Parks (*NHP*) Systems Plan*, was assembled by a team of historians and planners over several years and was approved in 1981; it guides research and planning for new national historic sites.

Gentilcore (1978) identified seven key themes in Canadian history and identified the ones that were most pertinent to each of the 39 natural regions of Canada, as established for national parks purposes. The *NHP Systems Plan* divides all of Canadian history into three categories, Social, Economic, and Political, and further subdivides these into 79 themes and 339 sub-themes. Very few themes in the *NHP Systems Plan* are specific as to time or place. The document encourages an analytical approach in which historic persons, places, or events may be "slotted" into one or more themes, which are distinguished from each other chiefly by categories of human behaviour, as distinct from place or time.

Two frameworks devised by the United States National Parks Service (USNPS) [1982, 1987] offer divergent approaches to the practices of combining and splitting sub-themes and elements. In 1982 all the dominant themes in United States history were compressed into nine themes. As a result, many activities or institutions that are central to an understanding of U.S. history were represented only at the sub-theme or facet level. In 1987, the revised thematic framework split activities much more finely into themes — some 34 of them. Subsequently, the USNPS in 1995 adopted a new thematic framework offering eight categories of historical action of a highly generalized nature (e.g. "Peopling Places"), with the additional consideration that each of these themes is cross-cut by three historical building blocks: time, place, and people.

For this framework, use was made of both the *Topical Organization of Ontario History,* (n.d. 1975?) and Alberta's *Master Plan: Prehistoric and Historic Resources* (n.d. 1982?). A draft plan for historic resources in the Northwest Territories was also consulted. On balance, Ontario's *Topical Organization* had more influence than the other frameworks, because it focused on human activities rather than institutions or abstract concepts, and because it grappled most openly with the difficulty of showing continuity while acknowledging temporal and spatial diversity. In addition, like the *Topical Organization,* in the present framework each theme is introduced by a narrative section.

3.2.2   Provincial and Territorial Systems Studies and Nomination Documents

Seven provinces and both territories have prepared systematic approaches to help guide their participation in the Canadian Heritage Rivers System. As of the end of 1999, some 35 sections of 32 rivers had been nominated to the system by provincial and territorial river managers. While systems studies and nomination documents serve different purposes, they collectively comprise a body of applied research literature that describes what local river

managers in Canada might regard as the cultural heritage of rivers. The present version of the framework differs from the original version in that it addresses only manageable components of river heritage that are normally identified in management plans. In the sense that the CHRS comprises river heritage representative of each constituent political entity of Canada as independent components, this is true. However, if most Canadians perceive Canada's river heritage from a national perspective, their expectation will be that the CHRS comprises a nationally balanced set of rivers and river sections.

Provincial and territorial CHRS systems plans take different approaches to the task of classifying human works that relate to the heritage of rivers. While a general debt to the authors of these documents is acknowledged, this framework departs from approaches that were found in many of the systems studies and nomination documents in three ways. Many provincial and territorial approaches:

- **Allow for the inclusion of all human history.** Some CHRS nominations and systems documents treat *all* of the human history found near a river as part of the cultural heritage values of the river. Some nomination documents borrow heavily from systems plans that do this, and others imitate the past commemorative activities of a variety of other non-river-oriented programs. The risk in these approaches is that rivers might be selected which duplicate terrestrial, or at least non-river-related, protected and commemorated sites. In addition, these documents may introduce into the selection process the biases or inconsistencies of other

agencies' past decisions.

- **Consider cultural frameworks to be secondary to natural frameworks.** As mentioned earlier, some CHRS documents approached natural resource issues with greater sophistication than cultural ones. In some cases, this even resulted in overlooking potential cultural resources. In the case of the Alsek River nomination, longstanding activities of First Nations on the river were ignored, in part because the pristine nature of the river appeared to indicate an absence of human occupation and therefore of cultural value. This framework will be implemented in concert with the natural framework.

- **Identify actual rivers.** The decisions on which rivers will be nominated to the CHRS may be guided by this framework but not dictated. No rivers are identified as potential candidates. It is anticipated that river managers will seek to nominate rivers which first meet the priorities identified in their own systems studies and second rivers which also fill gaps identified in the national system by this framework.

Furthermore, examination of some of these documents indirectly illustrated the importance of research on specific rivers. In some nomination documents, the significance of a river's history were exaggerated, while in others, significant values were missed. In lone, a river of great historical interest was left on the sidelines because its history, though illustrated by outstanding river-related historic resources, represented few themes as defined and counted by the provincial systems study.

For the development of the cultural framework, the value of these systems studies and nomination documents lies in their varied inventories of the cultural resources of specific rivers and the thought-provoking diversity of their approaches to defining river-related history.

3.3 Compatibility with Other Heritage Policies

Ideally, CHRS member agencies will find that this framework works well alongside cultural resource management policies in place in their jurisdictions. For Parks Canada, the approaches advocated in this framework are felt to be compatible with the "Cultural Resource Management Policy," part of *Parks Canada's Guiding Principles and Operational Policies.* In effect, application of the framework would correspond to the first two of the four practices of cultural resource management outlined in that policy (1994:106-07). First, there must be an *inventory* of resources that appear to be river-related; and second, there needs to be an *evaluation* of their historic value in order to decide on which ones to include. It is expected that these general policies will not conflict with those of other governments that implement the framework.

On the important issue of determining the significance of cultural values and theme representations, policies of heritage agencies differ or are moot. This framework is no different. There is no "magic number" for determining the length of time for which a place or object must have cultural meaning to be considered a river-related cultural resource. In Canada, the Federal Heritage Buildings Review Office will evaluate buildings if they are more than 40 years old.

In the United States, a "traditional cultural property" must be used for a ritual or social purpose by a cultural group for 50 years before it can be nominated to the National Register of Historic Properties. This framework does not propose arbitrary chronological tests of eligibility, but such criteria may need to be developed in future. Although they resist systematic classification, questions like "How old is it?" or "How long did it last?" are often used to answer the more fundamental question, "How important is it?" The narratives of some of the above theme descriptions, notably *Hydraulic Power Generation* (Sub-theme 1.3.2) and *Jurisdictional Use* (Theme 5) briefly discuss the relevance of potential representations from the standpoint of their age, both absolute and relative to others of their type.

4.0 IMPLEMENTING THE FRAMEWORK

4.1 Potential Framework Users

Some of the cultural frameworks examined for this study were designed to be implemented by a permanent staff of historians, archaeologists, and historic site planners. The approach adopted in this cultural framework for rivers is more general than these because its application will be the responsibility of planners with training and experience primarily in management of natural resources. Historians or archaeologists might not become involved until it is time to implement management plans for individual rivers. In fact, historians have a vital contribution to make to the identification, evaluation, presentation, and monitoring of cultural resources connected with rivers (as well as with other environments).

The framework is therefore intended to be detailed and analytical enough to ensure that the complexity of the past is being respected. History is the social science that analyses *change over time*, and change, or the lack of it, is central to any understanding of the cultural heritage of rivers. In addition, the framework must also be readily understood and applied by a range of professional disciplines.

In short, this framework should satisfy the professional requirements of historians, archaeologists and protected area planners alike. The present version is intended to be more suited to planners, who are accustomed to focusing their attention on tangible *in situ* resources.

4.2 Limitations in Applying the Framework

This cultural heritage framework will be useful if it is applied to real choices in the process of identifying, assessing and managing the cultural resources of rivers. It is intended to be used as a tool with which to recognize and classify river-related human heritage. However, it does not address the various means of commemoration, protection or management of rivers, nor does it address any actual rivers, sites and resources that may represent its themes.

The framework will help the CHR Board to identify what pieces of Canada's river heritage are and are not represented by rivers currently in the system. For those elements that are not already represented in the System, the framework allows river managers to identify the values each new nomination might bring to the system as a whole. However, the framework does not dictate subsequent selection decisions. A single example should make this clear. The long-distance canoe routes from Montréal to the Mackenzie River, or from Montréal to the mouth of the Columbia, are among the most historic waterways in their respective regions. Several links in this route are already in the CHRS. Whether or not additional elements of this route are worthy of inclusion will be a matter for the Board to decide. The framework will not dictate a judgement about whether this is unnecessary duplication, or just a good start.

A further limitation in applying the

framework can be observed in its use as a means of providing for a *balanced* representation of Canada's river heritage. While the present framework attempts to define elements which are of roughly equal importance in Canada's river heritage, users may have to address the fact that not all elements described in this framework are likely to be of equal "weight", particularly when it is applied across all regions of Canada. Some themes may, for example, need to be represented more than once, especially where there are distinct regional or historical "variations on a theme." Adequate theme representation may—indeed, often will—require more complex judgements than a simple count of which elements have any representation and which have none.

4.3 Interpreting Key Terms

According to the *CHRS Objectives, Principles and Procedures* (1984), "outstanding human heritage value will be recognized when a river environment meets one or more of the ... guidelines". Neither "human heritage" nor "river environment" is defined in existing CHRS policy documents sufficiently clearly to enable the practical recognition of which values located near rivers, or elsewhere, are relevant and which are not.

4.3.1 "Human Heritage Values"

"Heritage" is one of several terms used to describe tangible and intangible inheritances from the past that are judged to be worth protecting and transmitting to future generations. Serving as both noun and adjective, "heritage" has in many contexts simply displaced the word "history," both in the sense of natural history and the more

familiar sense of human history. Among professional bodies and agencies concerned with heritage, the term "cultural resource" has recently come into vogue to describe things that have "human heritage value." Parks Canada defines a cultural resource as "human work, or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has been determined to be of historic value" (Parks Canada 1994:101). So far as *physical objects and places* are concerned, the CHRS term "human heritage value" is interchangeable with the term "cultural resource." An object or place that is determined not to be of historic value is by definition not a cultural resource.

> *A **human heritage value** is a human work, or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has been determined, by any agency that has appropriate jurisdiction, to be of historic value. In situ physical evidence of remote and intangible things such as travel accounts, stories, songs, traditions, beliefs and information may also be considered as human heritage values.*

4.3.2 "River Environment"

As a logical minimum, the river environment (for cultural or any other purposes) cannot be defined as a smaller area than the bed of the river at the time of minimum flow in summer. And in keeping with the *CHRS Objectives, Principles and Procedures* (Parks Canada. 1984:3) the river's "immediate environment" obviously does not reach beyond the watershed of the river and all its tributaries. Within these limits, the river environment might be defined according to rigid physical criteria

or variable physical criteria, or according to conceptual criteria, which are inherently subjective and therefore flexible:

Conceptual criteria were in fact adopted. A definition of "river environment" has been developed which provides some guidance in determining which cultural resources are related to rivers and which are primarily related to the land. Even though certain land-based activities might have great historical interest, they and their related heritage values do not help represent the themes of this framework, and it should be recognized that the CHRS is not the appropriate vehicle to recognize or protect them.

In spatial terms, the river environment includes only those areas that are in physical proximity to the river and which can be managed through traditional protected area management or alternative stewardship and other forms of land management agreements.

Also of concern, in both the design of the framework and its application, is the need to exclude human activities that occur within river environments, and even on the banks of rivers themselves, that are irrelevant to the river, as the river is to the activity. Many of these activities could easily be performed elsewhere. Moreover, while some more distant activities, such as transmission of hydroelectricity or original paintings of rivers, are functionally related to the river, these are not potential representations because they are not *in situ*.

These considerations suggest an approach to defining "river environments" in terms of the sites and other evidence of human activity that affect the river or are affected

by it. Spatially, this "environment" does not necessarily consist of adjoining areas: functional links would be more important than physical ones.

The following definition of a river environment therefore includes the river itself, activities in the stream and on the banks, and allows for explaining to Canadians how their forebears used and valued rivers in their natural state, and how they altered them in the past.

*A **river environment** includes the river within its normal course, and all nearby sites where human activities have affected the river or have been directly affected by the river.*

4.3.3 "Historic Period of Outstanding Importance"

The *CHRS Objectives, Principles and Procedures (*1984) contains a historical integrity value guideline which must be considered in order for a river's nomination to be judged acceptable.

> In every case consideration should be given to the state of preservation of the river environment relative to its visual appearance during the historic period in which the waterway is considered to be of outstanding importance.

Difficulties may arise in meeting this guideline if, for instance, a river's historical importance coincided with degradation of its natural values. For example, the busiest period of historic transport activity on the Yukon River led to the stripping of timber along its banks. It may also be noted that on some rivers, several periods contribute equally to historical significance, and the

fact that *in situ* resources decay.

In general, most activities that can be called river-related have declined, or have become concentrated at fewer locations, with the development of technology. Before 1830, for example, most of the trade of Ontario's Grand River communities was carried on the river. Development of roads in the 1830s and railways in the 1840s made those communities less dependent on waterways. Motor vehicles and better roads have shrunk even further the number of communities that depend on rivers.

In two respects the economic and technological development of the 20th century have made more visible marks on rivers than the activities of earlier centuries. The first is hydroelectricity, with its ever-larger dams and reservoirs. The second is the rapid growth and urbanization of Canada, which increased the amount of water taken by municipal water supply systems and the discharge of human wastes. In all other respects a technologically advanced society is likely to make less direct use of rivers. Haslam (1991:204) cites examples of rivers whose economic importance has fallen off, with an accompanying decline in the quantity and quality of the water: pollution, aquifers, and substitute technologies or commodities allowed the rivers to become redundant. Villages and towns may be river-dependent at one time in history and then cease to need the river as economic development proceeds. "That which is needed by man is maintained; that which is not may easily be lost."

4.4   Types of River-related Human Activities

The sub-themes and elements of this framework reflect either (1) human uses of the river or (2) influences of rivers on human activity. The two facets — uses and influences — are present throughout the framework. Although it proved too difficult to organize the framework around this distinction it may be useful for users of the framework to be able to observe duplications and overlaps that would have occurred if such a division had been made.

4.4.1   Human Uses of Rivers

Human uses of rivers provided the basis for the formulation of key themes and sub-themes described in this document. Uses include:
- in-stream and shoreline harvesting of resources, especially biotic ones;
- moving people and goods on the surface of rivers;
- impounding river water or diverting its course for hydraulic power ;
- extracting water from rivers;
- as natural defenses;
- defining borders along rivers
- recreational touring.

The tangible evidence of these uses takes many shapes—boats, wharves, dams, locks, mills, irrigation channels, the infrastructure for municipal and industrial water supply, fortifications, or cairns and survey markers. Sometimes old activities themselves continue as a reminder of historic use—low impact activities like fishing are an example.

In this vein, another in-stream use, wilderness canoeing, takes place on the river but has a complex relationship with the river and its environment. Canoeing is widely ascribed a role in education, character-

building, and self-discovery (Hodgins. 1985:141-62), but the river is not so much the paddlers' objective as the means of delivering them to their real Grail, "wilderness."Thus, early routes travelled for this activity can be included within element 4.3.1 *Recreational Boating.*

4.4.2   Influences of Rivers on Human Activities

There are numerous activities that are river-related but do not actually employ the water or resources found in streams. These activities are functionally river-related and reflect some form of compromise in human activities:

*   **Physical activities influenced by rivers.** Bridge-building is a prime example of a human activity that is connected to rivers but makes no direct use the river's resources. Functionally, bridges belong to the land and its network of road and rail communications, not to the river or its water. Fords, ferries, causeways, and tunnels likewise look for ways to overcome rivers, not to use them. In the same vein, floodways and dykes are human responses to rivers as threats. Even though in these cases the river is not an asset but an obstacle or a threat, these activities are all intimately bound up with the human activities involving rivers and are suitable for inclusion in this framework's themes.

*   **Evidence of the influence of rivers on intellectual activities.** Many other cultural, economic, and recreational activities are closely related to rivers but do not involve the physical use of water or other in-stream resources.

Public parks and private gardens are developed along rivers, exploiting the river's scenic values for aesthetic reasons. Aspects of river-use, notably the allocation of rights to use water powers, may strongly influence the social structure of a town for several generations or give rise to distinctive forms of civic governance *(see* Akenson. 1984:286-88, discussing the evolution of l9th-century Gananoque, Ont.). A river may be the site of rituals or other activities which have spiritual value for participants or observers. Many of these spiritual values are Aboriginal ones, but some are not. Where there is *in situ* evidence, these offer appropriate representations of elements of this framework.

Human activities which demonstrate the influence of rivers on human activities include:

*   fords, ferries, bridges, causeways and tunnels
*   land survey and settlement patterns influenced by rivers
*   evidence of activities based on spiritual beliefs and rituals
*   *in situ* cultural and artistic expressions
*   evidence of issues of governance, such as boundaries that follow rivers
*   evidence of efforts to protect natural river environments from degradation

All of these activities can result in the creation of cultural resources representing a relationship between people and rivers, and all are included in the elements of this framework. However, while spiritual beliefs and rituals, such as baptism; often have a physical aspect as well as a strong symbolic one, these activities do not easily fit into the

categories of the framework. Many of them are therefore assigned to Theme 4, *Culture and Recreation*, a very broad category of cultural phenomena.

4.5 Types of Potential Theme Representations

Cultural resources or "human heritage values" may be classified in various ways, but the system used in this framework is particularly appropriate to rivers.

i) *In situ* **resources** are the physical remains of past human activity that remain in their original places. These may exist below-ground, or above-ground as entire structures or as ruins. Submerged objects, including the remains of structures that once rose above normal water levels, are also *in situ* cultural resources, though it is recognized that their management may pose special problems.

The CHRS integrity guidelines (*Guidelines.* 1991:29) speak not only of the integrity of river environments but also the importance of cultural resources in their original places. The long-term manageability of all kinds of cultural resources is an important consideration, and the most complex questions will revolve around *in situ* resources. These contribute strongly to the sense of place that distinguishes many cultural sites.

ii) **In situ moveable cultural resources** are objects whose physical integrity is unharmed if they are taken out of the context where they are found, although they might lose some of their value.

Along Canadian rivers, these resources range in size and purpose from flint arrowheads to paddlewheel steamers. Some may be *in situ;* others may have been removed to nearby museums or other locations but these may still be considered representative of the framework if they are still within the river's immediate environment.

iii) **The river itself** must also be considered as a cultural resource — a linear site of special associative significance. For many Aboriginal peoples, the river itself, provider of transport, food, water, and sometimes medicine, embodied much of their culture. European explorers and surveyors, to whom a considerable debt is owed for opening Canada to immigration, left few tangible signs of their journeys, and the routes themselves must be considered representations of elements 2.3.1 *French Exploration* and 2.3.2 *British Exploration.* Moreover, each Canadian heritage river today has a small corps of advocates and enthusiasts for whom protection of the river's heritage values is of cultural and at times spiritual importance.

Excluded from *Version 2* of this framework are intangible cultural resources including beliefs, associations, stories, and legends. While these are sometimes the basis upon which the cultural value of wilderness rivers is asserted and recognized, particularly in terms of Aboriginal history, they are only relevant where they can substantiate the presence of *in situ* cultural resources in the river environment.

Close relationships may exist between

intangible values and *in situ* and moveable ones. Tales and memories of Sir Alexander Mackenzie's cross-Canada travels are an example. A copy of his published *Narrative* provides detail of the route itself as well as numerous sites of important events that occurred during the journeys. These are *in situ* representations of the journey.

4.6 Determining River-Relatedness

Not all theme representations are created equal. The historical significance and condition of cultural resources will be a major factor when considering the degree to which a sub-theme element is represented in the system but is also of importance in deciding whether or not a particular cultural resource should be considered as representative of an element of this framework.

All values identified through this framework must be *river-related*, but as Haslam (1991:113) observes that in Britain "New industrial estates ... often develop on the old [riparian] industrial site.... They are not related to the river, they just happen to be put by it." Industrialization often used to be a river-related phenomenon, but much recent industrialization uses electricity for power and on highways and railways for transport. It uses neighbouring rivers for little more than a cheap water supply and, perhaps, for waste disposal.

4.6.1 Physical River-relatedness

In applying the framework it is useful to consider that relationships between people and rivers can be seen from three physical perspectives. An activity that cannot be seen and described from any of these perspectives is likely not a river-related human activity.

- **Midstream perspective:** As well as observing activities being carried on in midstream, such as fishing, this perspective also looks towards the banks to see how the river is incorporated into, or neglected by, the activities of local populations.

- **Riverbank perspective:** Human actions viewed from this perspective include the harvesting of shoreline resources, diversion of water to mills and riverside industries and the extraction of water for activities such as irrigation and municipal water supply. Activities such as the return of used water and the conversion of tributaries into drains become highly visible from this perspective.

- **Remote Perspective:** The third perspective consists of looking, so to speak, over the shoulders of people who use the river for cultural or governance purposes, to see how their relationship with the river produces *in situ* evidence of beliefs and rituals as well as jurisdictional uses, public buildings, or demarcations of boundaries.

4.6.2 Functional River-relatedness

As the framework is applied to cultural resources across Canada, one of the most challenging exercises will be to determine the *functional* association between the river and each of the cultural resources and human activities within its environment. The nature of this issue is best illustrated by two examples: agriculture and built heritage.

- **Agriculture**: Farming is closely associated with flowing water; it rarely exist far away from it. Moreover, terrain and soils that are suitable for agriculture are frequently concentrated in the floodplains of larger valleys; uplands and tributary valleys are often less suitable for crops or even for grazing. Rivers and streams provide water for crops and animals and also carry off surplus water. While Canada has many rivers without agriculture, practically all agriculture is conducted in close proximity to a river system.

  Paradoxically, this makes it more difficult to assign a place to agriculture in the framework, for it is essentially a land-based activity. Soil quality and slope (as well as precipitation and temperature) govern people's ability to make a living from the land, and it is difficult to offer an "outstanding" representation of the functional relationship between water and farming when the connection is so ubiquitous.

  For these reasons, river-related agricultural activity is rather narrowly defined in the framework, to be limited to a minority of farms which demonstrate in an unusually clear way the relationships that can exist between flowing water and agriculture. Therefore the related elements (1.3.3 and 3.1.2) are mainly associated with irrigation and pioneer settlement.

- **Built Heritage:** As discussed in the previous chapter, the third CHRS human heritage selection guideline (Parks Canada, 1991:29) states that the heritage values of a river environment may include "... structures, works or

sites which are unique, rare or of great antiquity." The fourth guideline also recognizes "outstanding examples or concentrations of historical or archaeological structures, works or sites which are representative of major themes in Canadian history." These two guidelines seem to imply that such cultural resources can be a basis for river nomination even if the sites themselves are not related to the river. The relevance of such sites to this framework therefore needs to be spelled out carefully.

No problem arises where river-side structures or archaeological sites are functionally river-related, such as the industrial complexes on the middle reaches of Ontario's Grand River. Pre-contact Aboriginal fish-weirs will be dealt with in the same way — as cultural resources that effectively illustrate element 1.1.1 *Aboriginal Prehistoric Fishing*. The archaeological remains of a water-mill can represent sub-theme element 1.3.1 *Power Generation*, while the submerged cargo of an overturned fur trade canoe, a distinctive form of archaeological site (Wheeler *et al.* 1975), would illustrate element 2.1.2 *Historic Human Powered Freight*. In this framework these sites are important to Canadian river heritage because of their testimony to a human use of the river, not because of its significance to the discipline of archaeology or chance location near a river.

Less clear-cut situations can be found in built heritage whose function is primarily land-related, but which is sometimes sited on waterways for

aesthetic or practical reasons:

- **Churches:** Churches are found in all of Canada's settled places. Sometimes the builders of churches have taken advantage of dramatic river-front sites to enhance the structure's impact or its beauty. Less frequently, churches are on rivers because their congregations often travelled by water; for example, the Stanley Mission on the Churchill River in Saskatchewan. Often a church is on a river simply because the habitations it serves are strung out along water. In a departure from the first version of this framework, Version 2 allows for the inclusion of such sites under the theme of *Culture and Recreation*.

- **Public Buildings:** Similar observations can be made about legislative buildings. Their functions are land-based. In Halifax and Charlottetown, legislatures face bodies of water but are sited well back from the shores, aloof from the wharves and commercial districts that crowd around the harbours. In Ottawa, Edmonton, and Winnipeg,

legislatures occupy imposing river-front sites and although they face away from the water embody architectural features which reflect the riverside location, and are thus admissible representations of element 4.2.4 *Architectural Responses*.

All of these sites may be river-related to some degree if their designers, or later users, have deliberately incorporated the river into the appearance or use of the building or site.

4.8   Conclusion

The significance of cultural heritage values often cannot be measured, but ought to be identified and described. It is central to the application of this framework that the human *heritage* of a river is best interpreted and learned through its cultural resources. An inventory and analysis of rivers' cultural resources *and* an evaluation of their significance are important steps towards giving protection to the parts of Canada's rivers that most deserve it. This framework provides a detailed methodology for the inventory and analysis, and a starting point for the evaluation of significance.

5.0   BIBLIOGRAPHY

5.1 Commentary

Most of the published literature on Canadian rivers deals with their natural resources; the number of books on the cultural history of rivers is small. Of the works that *are* worth noting, many deal with wilderness canoeing. Most of the surveyed literature on cultural landscapes and on the management of cultural resources has little to contribute to river history. Much has been written about the sense of place and about the management of special places, but the special problems of identifying and managing linear sites like rivers form only a small part of the literature.

The most eloquent studies of Canadian rivers are novelist Hugh MacLennan's *Seven Rivers of Canada* (1960) and his copiously

illustrated *Rivers of Canada* (1974), which updated the original book with six new chapters to represent the provinces he had omitted from the 1960 version. MacLennan wrote deeply and sensitively about the history of some of Canada's most famous river valleys; he both reflected and contributed to a sense that rivers are intertwined with the record of expansion by European societies into the northern half of North America. MacLennan set out to do for seven rivers what historian Donald Creighton achieved in *The Commercial Empire of the St. Lawrence* (1934) — to draw a picture of the nation's history with the river at its centre. MacLennan's treatment was uneven, however, and in some chapters — notably the one on the Saskatchewan — his history had far more to do with the land than with the river.

Historians other than Creighton have noted the role of rivers in Canada's development. A quick check of most indexes under the heading "Waterways" (*not* "rivers") will usually turn up a number of perfunctory mentions of the importance of navigable lakes and rivers to pioneer economies, as well as more detailed analysis of the first bout of canal-building that improved Canada's inland navigation routes between 1820 and 1845. Robert Leggett's *Canals of Canada* (1976) deserves particular notice among studies of navigable waterways. Rivers are well represented in histories of Canada's forest industries — squared timber, lumber and pulp and paper — and the long-distance canoe routes and York Boat routes of the fur trade have received their due from historians. Likewise, publications on hydroelectricity are inevitably preoccupied with rivers.

Not surprisingly, though, general histories of Canada take the role of rivers for granted. The best river histories are local histories (e.g. Fisher. 1985 and Dunham. 1947). Even so, much regional history passes quickly over the pioneer period when river transport and hydraulic power were decisive to communities' fortunes. This introductory period was often brief, for as F.C. Hamil wrote in his book on the Lower Thames (1973:viii), "The present study closes with the early 1850s, when the first railroad was completed and the Thames River began to lose its importance as the main unifying influence of the region."

Among the specialized studies dealing with in-stream human activity should be mentioned three thematic studies for the Historic Sites and Monuments Board of Canada: Robert Passfield's *Waterways of Canada* (1988), Felicity Leung's *Direct Drive Water Power in Canada: 1607–1910* (1986) and E.F. Bush's *History of Hydroelectric Development in Canada* (1986). As the purpose of these studies was to chart the major economic and technological changes in these industries on a cross-Canada basis, their conclusions lend themselves well to framework building.

Much of the best writing on Canadian rivers can be found in studies of canoe travel. For emotional power and fine writing Rugge and Davidson's Labrador exploration story *Great Heart* (1989) is outstanding, while the dozen essays in Hodgins and Hobbs' *Nastawgan* (1985) sketch the range of human reactions to the physical, competitive, spiritual and character-building potential of paddling on Canada's rivers. Hodgins and Hoyle's *Canoeing North into the Unknown* (1994) is a record of pioneer route-finding on many northern rivers, 1874–1974. Eric Morse's

Canoe Routes of Canada, commissioned by Parks Canada in 1967 and still in print, is a first-rate reference work for major pre-industrial commercial waterways, while the same author's canoeing memoirs, published in 1987 as *Whitewater Saga*, are a reflective addition to the literature. Users of this framework will have their own favourite canoeing books; the point to be made here is that on a shelf of non-scientific books about Canadian rivers, a disproportionate amount will be found to deal with self-propelled travel on rivers beyond the range of settlement.

Reference has already been made to Hodgins and Hobbs's (1985) *Nastawgan; the Canadian North by Canoe & Snowshoe*. In fact the 15 essays in this book deal far more with wilderness canoe travel than with any other theme, with particularly useful essays on the development of a philosophy and a business surrounding northern canoe tripping (e.g. Benidickson, and two by Hodgins) and an article on the business of canoe-building by Marsh. The article on the Kawartha Lakes regattas, however, emphasizes a more urbane type of river recreation, as well as acknowledging the role of water sports as secular rituals. Hodgins and Hoyle's *Canoeing North into the Unknown* includes brief regional treatments which constitute a fine summary of northern mineral exploration before the advent of the bush plane, and the remoter developments of recreational canoeing.

Among noteworthy historical studies are the three volumes in the *Historical Atlas of Canada* published by the University of Toronto Press, and the *National Atlas of Canada,* including both the last bound edition (the Atlas's fourth) and the separate sheets published seriatim and unbound as a

fifth edition. By no means all of the sheets in these two major undertakings deal with rivers, or with the human dimension of river history, but both these series offer suggestive approaches and hard data from which this framework benefited.

Among international sources, Sylvia Haslam's *The Historic River: Rivers and Culture Down the Ages* (1991) was a constant source of insights even though none of her examples are drawn from North America. Tim Palmer's 1986 survey of *Endangered Rivers and the Conservation Movement* (Berkeley: University of California Press) is of equal interest. A broader international perspective (though a more eclectic one topically) can be found in the October 1988 special issue of *Landscape and Urban Planning*, which deals with "The Landscape of Water".

A very different collective work deals with Alberta rivers, often from a strong environmentalist perspective. Bradley *et al.* (1990), *Flowing to the Future; Proceedings of the Alberta's Rivers Conference, May 11–13, 1989* repays careful reading from a cultural perspective: the articles express an understanding of the importance of rivers from a number of viewpoints. The best historical study is a favourable view of multipurpose water management, and is therefore, in spirit, untypical of the book as a whole (Melnychuk 1990).

Nevertheless, more such conferences, and more books of this type, will encourage the view that environmental preservation and cultural heritage preservation are part of the same movement—and that in the 20th century environmental degradation and loss of cultural heritage are also related (Environment Canada 1993; McMahon and

Watson 1993).

Because rivers have attracted so much human effort in the past, they will be an obvious focus for studies that cross this boundary between natural and cultural history. The methodologies for both fields of study and activism need to be the same—a careful inventory of heritage values at each point along a waterway, an understanding of these values in a regional and national context, and due acknowledgment of the complexity of the interactions between human communities and other natural phenomena.

5.1   Select Bibliography

Abel, Kerry and Jean Friesen. 1991. *Aboriginal Resource Use in Canada: Historical and Legal Aspects* (Winnipeg: University of Manitoba Press).

Akenson, Donald H. 1984. *The Irish in Ontario; a Study in Rural History* (Kingston and Montréal: McGill-Queen's University Press).

Anderson, Letty. 1988. "Water-Supply", in Ball, *Building Canada*, 195–220.

Andrews, Jeanne ed. 1993. *Flooding; Canada Water Book* (Ottawa: Environment Canada, Ecosystem Sciences and Evaluation Directorate).

Assembly of First Nations and Canadian Museums Association. 1992. *Turning the Page: Forging New Partnerships Between Museums and First Peoples* (Ottawa: Task Force Report on Museums and First Peoples).

Ball, Norman, ed. 1988. *Building Canada: A History of Public Works* (Toronto: University of Toronto Press).

Baldwin, Douglas. 1988. "Sewerage" in Ball, *Building Canada*, 221–44.

Bankes, Nigel D. 1991. "The Board of Investigation and the Water Rights of Indian Reserves in British Columbia, 1909 to 1926", in Abel and Friesen, *Aboriginal Resource Use*, 219–47.

Barris, Theodore. 1978. *Fire Canoe; Prairie Steamboat Days Revisited* (Toronto: McClelland and Stewart).

Bradley, Cheryl, Albert A. Einsiedel Jr., Tim Pyrch and Kevin Van Tighem, eds. 1990. *Flowing to the Future; Proceedings of the Alberta's Rivers Conference May 1–13, 1989.* (Edmonton: University of Alberta Faculty of Extension).

Canada. Canadian Heritage. 1994. *Parks Canada Guiding Principles and Operational Policies.* (Ottawa: Minister of Supply and Services).

Canada. Environment Canada. n.d. *The Nature of Canada: A Primer on Spaces and Species*. (Consultation Edition. Ottawa).

Canada. National Atlas Information Service. 1983. MCR 4069: Canada— Electricity Generation and Transmission (1:5,000,000).

Canada. Water Resources Branch. 1959. *Proceedings of Symposium No. 1; Spillway Design Floods* (Ottawa: Northern Affairs and National Resources). Includes historical survey of the development of the hydrometric survey programme since 1894.

Canadian Heritage Rivers Board Secretariat 1991. *Canadian Heritage Rivers System Guidelines*, Ottawa (mimeographed).

Canadian Heritage Rivers System. 1984. *Objectives, Principles and Procedures* (Ottawa: Parks Canada for the CHRS).

Canadian Water Resources Association. 1988. *Managing Ontario's Streams*, eds. J. Fitzgibbon and P. Mason (Cambridge, Ont.: CWRA).
—. 1992. *Resolving Conflicts and Uncertainty in Water Management.* Proceedings of the 45th Annual Conference, Kingston Ont.

Davidson, James West, and John Rugge 1983. *The Complete Wilderness Paddler* (New York: Vintage Books). First published in 1975.
---. 1989. *Great Heart: The History of a Labrador Adventure* (Harmondsworth: Penguin).

Demayo, Adrian. 1993. *Glossary of Water Terms, English-French* [not located]

Dene Cultural Institute. 1989. *Dehcho: "Mom, We've Been Discovered!"* (Yellowknife: DCI).

Denis, Leo G. 1916. *Water Works and Sewerage Systems* (Ottawa: Commission of Conservation). Brief descriptions of the age, consumption, and other quantifiable attributes of 396 municipal and 132 privately-owned water supply systems in Canadian municipalities in 1915. Supersedes Denis's earlier work (without sewage data) published 1912.

Dunham, B. Mabel. 1947. *Grand River* (Toronto: McClelland and Stewart).

Duquemin, Colin K., and Daniel J. Glenney 1991. The Grand River Canal. Rev. ed.. (Fonthill: St. John's Outdoor Studies Centre). Niagara South Board of Education Outdoor Studies Pamphlet No. 111.

Eastern Irrigation District. 1985. *Tapping the Bow* (Brooks, Alta.: Eastern Irrigation District).

Fisher, Sidney Thornton. 1985. *The Merchant-Millers of the Humber Valley; A Study of the Early Economy of Canada* (Toronto: NC Press).

Gossage, Peter. 1985. *Water in Canadian History: An Overview* (Ottawa: Environment Canada, Inquiry on Federal Water Policy).

Gresswell, R. Kay. 1958. *The Physical Geography of Rivers and Valleys* (Andover, Hants: Hulton Educational Publications).

Hallett, Brian. 1987. "Timber on the Rivers", in *The Archivist* 14:5 (Sept.–Oct.) 4–5.

Hamil, Fred Coyne. 1951. *The Valley of the Lower Thames, 1640–1850* (Toronto: University of Toronto Press). Second edition published 1973.

Hargrave, Joseph James. 1871. *Red River* (Montréal: John Lovell). See especially Chapter 12, "Annual Routine in Red River Settlement", 155–73.

Harris, Gerry. 1989. *Vancouver's Old Streams* (Vancouver: Public Aquarium Association). Illustrations, descriptions, and map of streams, now mainly underground, in what has become the City of Vancouver.

Harvey, Andre
1983. "Promising Steps Toward a New Ottawa River Regulation", in Mitchell and Gardner (eds.), *River Basin Management*, 99–108. Includes a good historical summary of water management in a section titled "A Task Molded by History."

Haslam, Sylvia. 1991. *The Historic River: Rivers and Culture Down the Ages* (Cambridge: Cobden of Cambridge Press).

Hodgins, Bruce W., and Margaret Hobbs. 1985. *Nastawgan; The Canadian North by Canoe & Snowshoe. A Collection of Historical Essays* (Toronto: Betelgeuse Books).

Hodgins, Bruce, and Gwyneth Hoyle 1994. *Canoeing North into the Unknown; A Record of River Travel: 1874 to 1974* (Toronto: Natural Heritage/Natural History Inc.).

Holzkamm, Tim E., and Victor P. Lytwyn, and Leo G. Waisberg. 1991. "Rainy River Sturgeon: An Ojibway Resource in the Fur Trade Economy", in Abel and Friesen, *Aboriginal Resource Use*, 119–40.

Hooper, Thomas. 1967. "The Royal Navy Station at Ile-aux-Noix (1812–1839)", in Parks Canada Manuscript Report Series, No. 167 (Ottawa: Parks Canada) 49–100.

Hoyt, William G., and Walter B. Langbein 1955. *Floods* (Princeton: Princeton University Press).

Landscape and Urban Planning. 1988. *Special Issue: The Landscape of Water*, Vol. 16 Nos. 1–2 (October).

Lee, David. 1976. *The Battle of the Windmill: November 1838*, in Parks Canada, *History and Archaeology* No. 8, 102–08 (Ottawa: Parks Canada).

Legget, Robert F. 1976. *Canals of Canada* (Vancouver: Douglas; English ed. Newton Abbott: David and Charles).
---. 1975. *Ottawa Waterway: Gateway to a Continent* **(**Toronto: University of Toronto Press).
---. 1955, 1972. *Rideau Waterway* (Toronto: University of Toronto Press). Reprinted 1962; rev. eds. 1972, 1986.
---. 1979. *The Seaway: In Commemoration of the 20th Anniversary of the Seaway and the 150th Anniversary of the first Welland

Canal, 1829, 1959, 1979 (Toronto: Clarke, Irwin).
---. 1988. *Ottawa River Canals and the Defence of British North America* (Toronto: University of Toronto Press).

Leung, F. n.d. "Direct Drive Waterpower in Canada, 1607–1910". (Ottawa: Parks Canada Microfiche Report No. 27).

MacLennan, Hugh. 1961. *Seven Rivers of Canada* (Toronto: MacMillan of Canada).

Marsh, James H. 1985. Editor in Chief. *The Canadian Encyclopedia*. 3 volumes. Hurtig Publishers.

McCalla, Douglas. 1993. *Planting the Province: The Economic History of Upper Canada 1784–1870* (Toronto: University of Toronto Press, for the Ontario Historical Studies Series).

McClelland, Catherine. 1987. *A History of the Yukon Indians: Part of the Land, Part of the Water* (Vancouver: Douglas and McIntyre).

McMahon, E.T., and A.E. Watson. 1993. "In Search of Collaboration: Historic Preservation and the Environmental Movement", in *History News* 48:6 (Nov.–Dec.) 26–27.

McNeely, Jeffrey. 1992. "Nature and Culture: Conservation Needs Them Both", in *Nature and Resources; Different faces of World Heritage* (28:3) 37–43.

Manz, David, ed. [1993]. *Water and the Wilderness: Development, Stewardship, Management; Proceedings of the 46th Annual Conference of the Canadian Water Resources Association, Banff, Alberta June 16–19, 1993.* ([Cambridge, Ont.]: Canadian Water Resources Association).

Melnychuk, Peter. 1990. "Multi-purpose Management of Alberta Rivers", in Bradley *et al.*, *Flowing to the Future*, 63–70.

Mitchell, Bruce, and James S. Gardner, eds. 1983. *River Basin Management: Canadian Experiences* (Waterloo: University of Waterloo, Faculty of Environmental Studies). Includes A. Harvey, *q.v.*

Moodie, Wayne. 1991. "Manomin: Historical-Geographical Perspectives on the Ojibwa Production of Wild Rice", in Abel and Friesen, *Aboriginal Resource Use*, 71–80.

Morse, Eric W. 1969. *Fur Trade Canoe Routes of Canada / Then and Now* (Ottawa: Queen's Printer for National and Historic Parks Branch).
---. 1987. *Freshwater Saga; Memoirs of a Lifetime of Wilderness Canoeing in Canada* (Toronto: University of Toronto Press).

Morton, James W. 1970. *Capilano; The Story of a River* (Toronto and Montréal: McClelland and Stewart).

Oglesby, Ray T., Clarence A. Carlson, and James A. McCann, eds. 1972. *River Ecology and Man* (New York and London: Academic Press).

Ontario. Department of Planning and Development. 1945. *River Valley Development in Southern Ontario; Papers and Proceedings of the Conference on River Valley Development in Southern Ontario held at London, Ontario, October 13th and 14th, 1944* (Toronto: King's Printer).

Den Otter, A.A. 1988. "Irrigation and Flood Control", in Ball, *Building Canada*, 143–68.

Paine, Albert Bigelow. 1907. *The Tent Dwellers* (London: The Outing Publishing Company;   reissued by Wm. Macnab & Son, Halifax, 1982).

Palmer, Tim. 1986. *Endangered Rivers and the Conservation Movement* (Berkeley: University of California Press).

Passfield, Robert. 1988. "Waterways", in N. Ball, *Building Canada*, 113–42.

Robertson, B. R. 1986, *Sawpower; Making Lumber in the Sawmills of Nova Scotia* (Halifax: Nimbus Publishing and the Nova Scotia Museum).

Roos, A. 1988. "Electricity", in Ball, *Building Canada*, 169–94.

Rutherford, Ian. 1991. *Brief* from Parks Canada to the Task Force on Museums and First Peoples convened by the Assembly of First Nations and Canadian Museums Association; 31 March 1991.

Shrubsole, Dan, ed. 1992. *Resolving Conflicts and Uncertainty in Water Management; Proceedings of the 45th Annual Conference of the Canadian Water Resources Association Kingston, Ontario* (Cambridge Ont.: Canadian Water Resources Association).

Washburn, Owen V. 1985. *The Saint John River: Deterioration and Restoration* (Fredericton: Washburn and Gillis Associates). Research paper #13 for the Inquiry on Federal Water Policy.

Wheeler, Robert, with W.A. Kenyon, Alan R. Woolworth, and Douglas A. Birk 1975. *Voices from the Rapids; An Underwater Search for Fur Trade Artifacts 1960–73* (St. Paul: Minnesota Historical Society).

Wisner, Paul. 1984. "History of Flooding in Canada" (unpublished).

APPENDIX A: Notes on Consultations During the Development of the Framework

Framework documents, particularly ones like this which cross disciplinary boundaries, cannot develop in isolation, and this one has benefited from peer review and from consultations with numerous experts.

The relationship of people to rivers is a subject which many heritage professionals proved anxious to discuss. Most consultations were spontaneous and informal, with two exceptions. In February, 1994 this project was explained to a meeting of the National Historic Sites systems plan review task force. Mr. Brian Woolsey and his colleagues helped to bring a number of issues into focus at that early stage. Acknowledgement is particularly due to Parks Canada staff involved in the management planning process for the Rideau Waterway. They have already wrestled with many of the issues that were central to this framework, and their suggestions were stimulating and influential.

More formal meetings were held in April 1994 with two dozen heritage professionals whose backgrounds include planning, management and research. At these meetings, participants explained and discussed the mandate, basic approaches, and tentative conclusions of the projected by the participants. Although the advice we received at these meetings was far from unanimous, participants may recognize the influence of information they contributed and should see that an effort has been made to incorporate in the framework many of their more subjective concerns.
One question dominated most of these

discussions: "Where should the line be drawn between sites or structures that are river-related and those which are ordinarily or primarily related to the land?" Many argued vigorously for a broad and inclusive definition of the "river environment" for cultural purposes, while others considered that narrower criteria would better direct attention to the most outstanding representations of the various themes.

The answer lies somewhere in the middle. This framework stops well short of ascribing to rivers a dominant influence over all the cultural processes that occur in their watersheds; but it does acknowledge that a seemingly land-based activity such as erection of buildings may reflect strong responses to nearby rivers. For example, the influence of adjacent waterways on built heritage has been acknowledged in the framework, even where the function of the building is unconnected to the river.

While colleagues were very helpful in defining the "river environment" and in making the list of river-related activities comprehensive, they were comparatively less interested in suggesting new ways to combine or divide these activities into "themes". Nevertheless, they were quick to identify gaps and inconsistencies, and the framework has benefited from these discussions.

APPENDIX B: Notes on Applying the Framework to Nominations

This framework document was developed from a Canada-wide perspective, and deliberately avoids referring to specific rivers. However, to ensure that the framework would be useful, efforts were made while it was being developed to look ahead and consider how it might in practice be used to classify the river-related cultural heritage already represented in the CHRS, and to organize data for future nominations.

The framework offers considerable guidance on ways to classify the cultural heritage values of specific rivers that are being considered for nomination. This guidance can be summarized in four steps:

1. What are the physical structures, sites and evidences of human activity in the immediate environment of the river?

2. Which of these is a:
   • cultural resource;
   • contemporary asset; or
   • other object without historical value?

3. Which of the identified cultural resources are physically or functionally river-related, according to the analysis in Chapter 4, reflecting human uses of the river or human activity that is influenced by the river?

4. To which of the framework's theme elements can each cultural resource be assigned?

After preparation of a structured inventory of river-related cultural resources has been

prepared, two further steps will help define the relationship of the cultural resources to the objectives of the Canadian Heritage Rivers System:

5. Which of the cultural resources has been recognized by heritage specialists as having exceptional significance, or as being an outstanding representative of its type, in its locality, its region, or in Canada as a whole?

6. Which of the cultural resources associated with the river in question would make a distinctive or unique contribution to the Canadian Heritage Rivers System, considering the cultural resources of other rivers with comparable values already within the System?

In the past, some nomination documents gave equal weight to different themes, or listed cultural resources in the same order in which related concepts appear in the *CHRS Selection Guidelines*. In future, nominations could clarify the case for including a river in the System in the following sections:

   • *Role in the System* could be used to highlight the outstanding cultural resources and new theme representations that a river brings to the CHRS;
   • *Resource Description* sections could describe the cultural resources themes in order of their occurrence in this framework;
   • *Appendices* could be used to tabulate

the occurrences of similar theme representations elsewhere in the System.