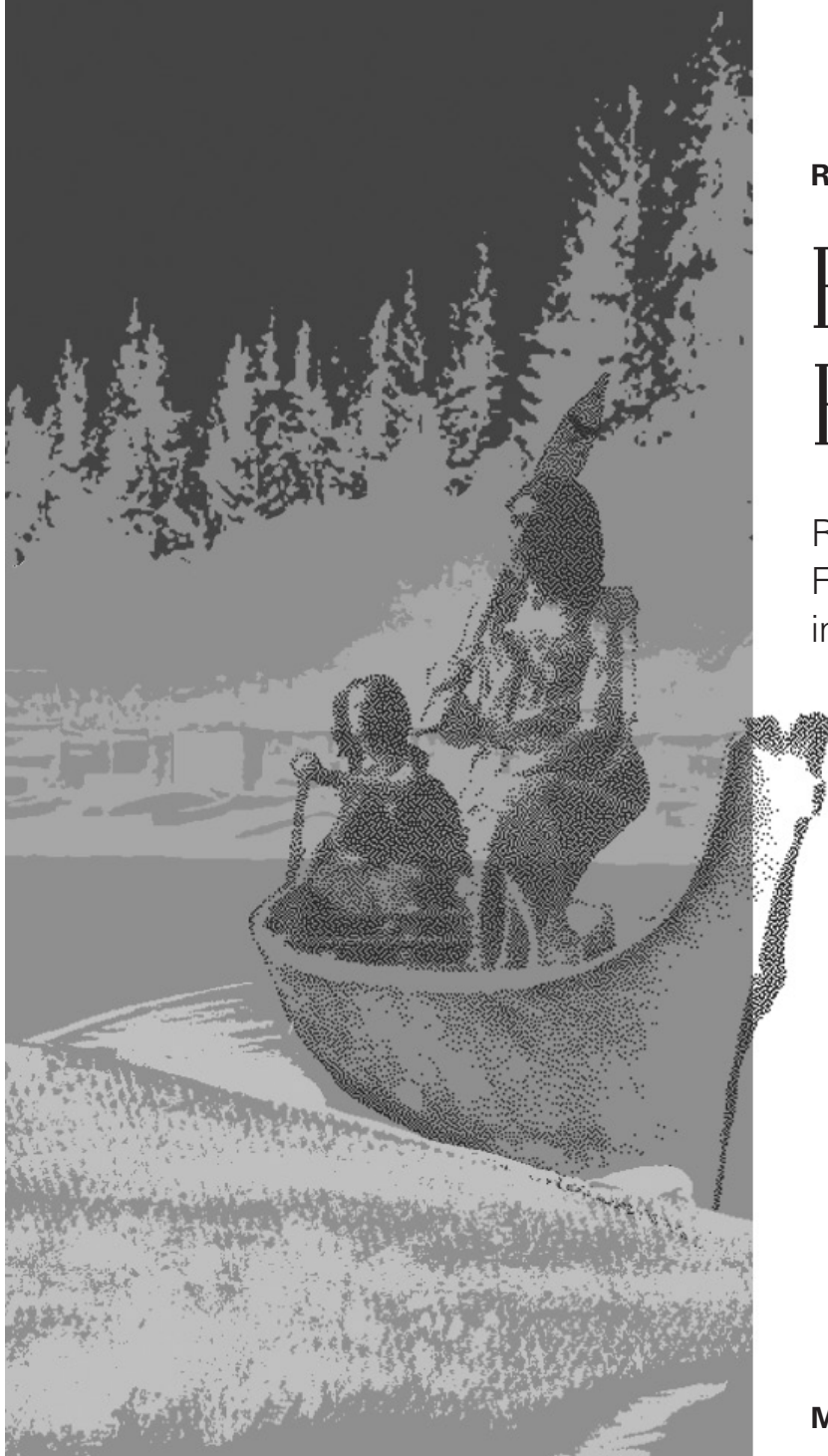


**The Scientific Panel  
for Sustainable  
Forest Practices  
in Clayoquot Sound**



**Report 3**

# First Nations' Perspectives

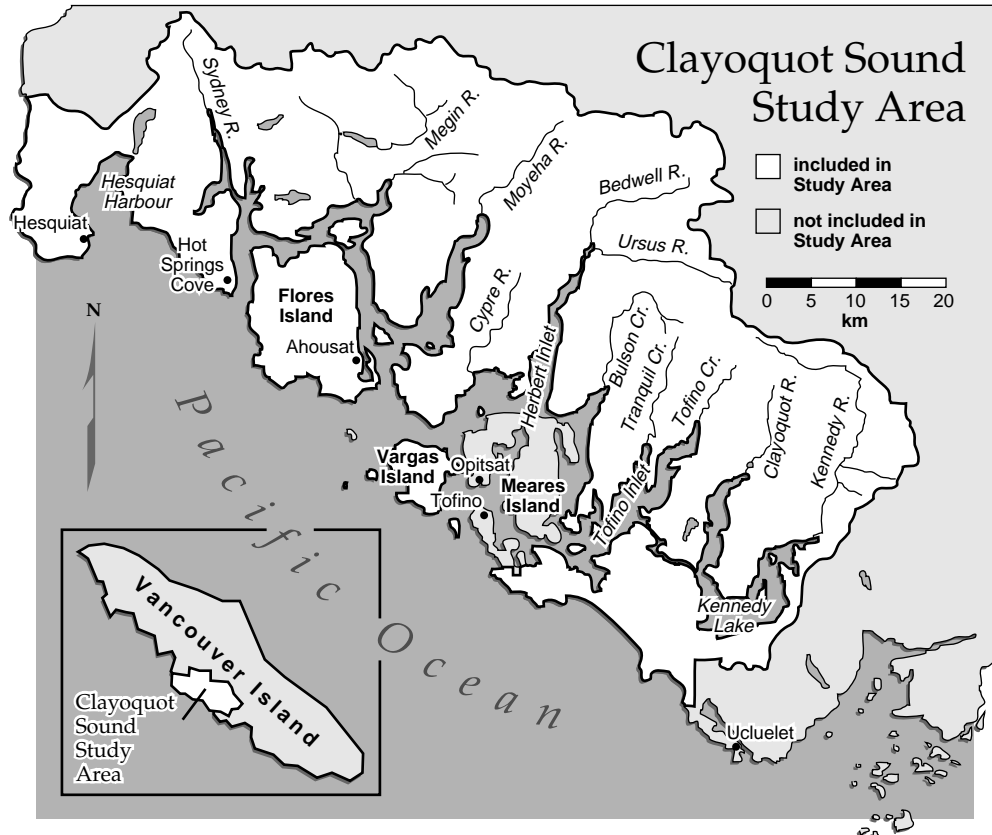
Relating to  
Forest Practices Standards  
in Clayoquot Sound

**March 1995**



# First Nations' Perspectives

## Relating to Forest Practices Standards in Clayoquot Sound



Source: Province of British Columbia (April 1993). Clayoquot Sound Land Use Decision: Key Elements.



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## Acknowledgments

We gratefully recognize the wide-ranging contributions to the work of the Scientific Panel made by many leaders and knowledgeable people of the Nuu-Chah-Nulth First Nations. Many Nuu-Chah-Nulth people have contributed directly and indirectly to this report and the accompanying tables of Nuu-Chah-Nulth traditional biological resources and important places (Appendices V and VI). We thank Dr. George Wikinanish Louie and Earl Maquinna George for their significant input to Appendix V.

We also acknowledge the assistance of contributors: Randy Bouchard and Dorothy Kennedy, British Columbia Indian Language Project; Ashley Dharwant, Simon Franklin, and Judith Mitchell, Environmental Studies Program, University of Victoria; and Laurie K. Montour, Mohawk Nation.

Cover illustration by Cortex Consultants adapted from photos provided courtesy of B.C. Archives and Records Service (HP 74527) and Royal British Columbia Museum (4650).





## Executive Summary

This document presents findings of the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound from its review of forest practices standards in effect in Clayoquot Sound as of September 30, 1994. It notes the extent to which First Nations' knowledge and interests are addressed in current standards, and recommends requirements for new forest practices standards that cover the spectrum of First Nations' interests and concerns.

The report provides examples of current Nuu-Chah-Nulth uses of resources and places in Clayoquot Sound. A companion volume of Appendices, published separately, contains an inventory of plant and animal species culturally important to the Nuu-Chah-Nulth, and an inventory of Nuu-Chah-Nulth cultural areas by resource use.

The traditional knowledge base of the Nuu-Chah-Nulth nations is extensive. As indigenous peoples residing in the Clayoquot Sound area for thousands of years, the Nuu-Chah-Nulth people have great knowledge and personal experience of Clayoquot Sound ecosystems. Nuu-Chah-Nulth history, culture, and spirituality are firmly bound to the area's forests and waters, as is their future well-being.

The history of First Nations' resource use in Clayoquot Sound is framed by two important concepts: *hishuk ish ts'awalk* and *hahuulhi*. *Hishuk ish ts'awalk*, or "everything is one," embodies the Nuu-Chah-Nulth sacredness and respect for all life forms and their approach to resource stewardship. *Hahuulhi*, the Nuu-Chah-Nulth system of hereditary ownership and control of traditional territories, represents a long history of resource use and management in Clayoquot Sound, and provides a basis for Nuu-Chah-Nulth participation in co-managing the area and its resources.

Despite this long history of residence and resource use, current forest practices standards in Clayoquot Sound show little or no recognition of First Nations' values or interests. Where First Nations' knowledge or interests *are* recognized (e.g., "cultural heritage sites"), provisions for them are often cursory. Current standards reflect limited understanding of the nature and scope of First Nations' traditional knowledge and interests, and what is required to incorporate or protect them. Forest practices standards have tended to exclude the Nuu-Chah-Nulth from meaningful participation in management of resources within their traditional territories in Clayoquot Sound.

Four documents that take significant steps towards recognizing and providing for First Nations' interests are: the *Interim Measures Agreement* (1994); *Clayoquot Sound Sustainable Development Strategy* (1992); *British Columbia Forest Practices Code Standards with Revised Rules and Field Guide References* (1994); and the *National Aboriginal Forest Practices Code* (Draft 1994). More explicit guidelines are still needed, however, to ensure the involvement of First Nations and incorporation of their knowledge into forest ecosystem management in Clayoquot Sound.

To address deficiencies in representing First Nations' perspectives in current forest practices in Clayoquot Sound, the Clayoquot Scientific Panel—drawing on principles, goals, objectives, and recommendations developed earlier in its work—presents a framework for developing new forest practices standards. This framework consists of 27 recommendations covering the following themes:

- incorporating Nuu-Chah-Nulth traditional ecological knowledge into environmental planning, inventory, monitoring, and research to complement scientific knowledge;
- co-management based on equal partnership and mutual respect as a means of including indigenous people and their knowledge in planning and managing their traditional territories;
- full consultation and active participation of the Nuu-Chah-Nulth in planning and decision-making processes, in all operational forestry activities (including inventory and mapping), and in monitoring and evaluation related to ecosystem management;
- recognizing *hahuulhi* in determining and implementing ecosystem management within traditional territories;
- implementing forestry practices that pose least risk to foreshore and offshore resources of primary importance to the Nuu-Chah-Nulth;
- restoring areas and resource capabilities where damage has occurred;
- broadening the definition of culturally important areas beyond “cultural heritage sites,” based on areas deemed to be culturally important by the Nuu-Chah-Nulth First Nations, and including sacred, historic, and current use areas;
- providing education and training to Nuu-Chah-Nulth people in ecosystem management; actively recruiting First Nations' workers for forestry and related activities; and developing a forest worker qualification program that includes education and training related to Nuu-Chah-Nulth perspectives and values; and
- undertaking research to enhance the effectiveness of sustainable ecosystem management and to complement Nuu-Chah-Nulth traditional ecological knowledge and experience.

These activities are compatible with and support the terms of the *Interim Measures Agreement* (between British Columbia and the HwiiH of the Tla-o-qui-aht First Nations, the Ahousaht First Nation, the Hesquiaht First Nation, the Toquaht First Nation, and the Ucluelet First Nation, 1994). It is hoped that these activities, and the other collaborative work by First Nations in British Columbia, will help to establish a new relationship among provincial and federal governments, First Nations peoples, industry, and society in general, in the management and stewardship of ecosystems.

Our ancestors still live with us in these forests where we encounter our spiritual values, our powerful healing medicines which were gifts of the Creator, the forests that are our very sustenance for everyday living, are also being blessed by our ancestors. The natural setting needs to remain stable. (Haiyupis 1994c:5)

There are lands that are important to save in Clayoquot Sound. It is important to save in the interests of the life that is within the forests, the life that is sustained by the life and vegetation in the forests, and the life that withholds the nourishment for incoming resources bent on the continuity of their species, the protection and shelter for other life living in and adjacent to the forests at all times, and so on. In the interests of some of the population, "rights" to access those resources have been withdrawn from us who were first dependent on those resources for our survival. This was done without consulting with the "keepers of the land." One of our main struggles has been with the question of "how does one obtain rights" without consultation with the "keepers of the land"? (Haiyupis 1994c:8)

The Panel believes that Clayoquot Sound can become a model for including traditional ecological knowledge and interests of indigenous peoples in sustainable ecosystem management.



## 1.0 Introduction

And we come to a place called *tanaknit*<sup>1</sup> [Steamer Cove, northwest Flores Island]...And it had a lot of disturbance. Logging was there for a few years. And it was a dumping ground for logging. And herring never goes back in there any more 'cause there was so much bark and different things in the bottom of the ocean. And that destroyed what the spawners...spawned on, [eel-]grass and kelps. (Sam 1993b:5)

In the past, impacts of forest practices on the lives of First Nations have often been ignored or, at best, recognized only casually and incompletely. The past neglect of First Nations' values and concerns evidenced in Clayoquot Sound is a situation common in many parts of the world.

Recently, however, worldwide attention has focused on the relationships between conservation of the environment and indigenous perspectives. An accompanying movement has recognized the importance of indigenous knowledge of the environment and the rights of indigenous peoples to be meaningfully involved in every phase of land-use planning and decision-making within the boundaries of their traditional territories (International Union for the Conservation of Nature 1975; Freeman 1979; International Society of Ethnobiology 1988; Soulé and Kohm (editors) 1989; Shiva *et al.* 1991; Cunningham 1993; Durning 1993; United Nations 1992; Schultes 1994).

In British Columbia, the provincial government formally recognized the important role of indigenous societies in conservation and management by appointing four Nuu-Chah-Nulth<sup>2</sup> to the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound.<sup>3</sup> In announcing the creation of the Panel, Premier Mike Harcourt stated, "The Nuu-Chah-Nulth representatives—Dr. Richard Atleo, Ernest Lawrence Paul, Roy Haiyupis, and Stanley Sam—will serve on the panel to provide First Nations' perspectives on the value of forests to their way of life. As well, Dr. Atleo will provide an all-important link between the scientific community and the First Nations elders."

The Nuu-Chah-Nulth Panel members represent, directly or through their lineages, three of the five First Nations in the Clayoquot region: Ahousaht, Clayoquot (*Tla-o-qui-aht*), and Hesquiaht<sup>4</sup> They were appointed to the Scientific Panel on the recommendation of the Nuu-Chah-Nulth Tribal Council.

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<sup>1</sup>There is no single, practical orthography for representing sounds in the Nuu-Chah-Nulth language. We have attempted to standardize our orthography as follows: ʔ (glottal stop, also sometimes written ʔ); ʕ (pharyngeal, also sometimes written ʕ); aa, ii, uu (long vowel sounds, also sometimes written a., i., u.); apostrophe following a letter (e.g., t', m') indicates glottalization; underlining (e.g., h, x) indicates sounds pronounced at the back of the throat. Some equivalent symbols are (with those used here listed first): ch=ç; h=h; lh=ł; sh=š; tl=ł; x=x̣=̣x.

<sup>2</sup>Derived from *nuch* "mountain"; lit. "all along the mountain."

<sup>3</sup>Hereafter, the Clayoquot Scientific Panel, Scientific Panel, or the Panel.

<sup>4</sup>Many Nuu-Chah-Nulth groups traditionally occupied the Clayoquot Sound region, including nine

## 1.1 Context of this Report

Recent international documents on resource use recognize the needs and aspirations of indigenous peoples. The World Commission on Environment and Development presented the case clearly:

Tribal and indigenous peoples will need special attention as the forces of economic development disrupt their traditional lifestyles—lifestyles that can offer modern societies many lessons in the management of resources in complex forest, mountain, and dryland ecosystems. Some are threatened with virtual extinction by insensitive development over which they have no control. Their traditional rights should be recognized and they should be given a decisive voice in formulating policies about resource development in their areas. (World Commission on Environment and Development 1987:12)

These [indigenous] communities are the repositories of vast accumulations of traditional knowledge and experience that link humanity with its ancient origins. Their disappearance is a loss for the larger society which could learn a great deal from their traditional skills in sustainably managing very complex ecological systems. (World Commission on Environment and Development 1987:115)

Subsequent international agreements (*Convention on Biological Diversity, Agenda 21*, and *Guiding Principles on Forests*<sup>5</sup>) include specific reference to the identity, culture, rights, and participation of indigenous peoples as regards resource use.<sup>6</sup> Frank Cassidy, of the School of Public Administration, University of Victoria, places this general imperative within the British Columbian context:

Sustainable development in British Columbia and in Canada as a whole will not be achievable without the full involvement and support of

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*continued*

that are widely recognized: Hesquiaht (*hishkwii7ath*); Manhousaht (*maan'u7is7ath*); Otsosat (*?uts'uus7ath*); Ahousaht (*?aahuus7ath*); Keltsomaht (*qilhtsma?ath*); Quatsweaht (*qwaatswii7ath*); Owinmitisaht (*uu7inmitis7ath*); Puneetlaht (*paniitl7ath*); and Clayoquot, or Tla-o-qui-aht (*hla7uukwi7ath*) (Bouchard and Kennedy 1990:15). The history and relationships among these groups are described by Drucker (1951), Arima (1983), Bouchard and Kennedy (1990), and Sam (1993a, 1993b). Two other smaller groups, which eventually joined with the major Ahousaht tribe, were identified by Roy Haiyupis and Stanley Sam of the Scientific Panel. These are *Tli-tsa-ath*, on the western tip of Wickaninnish Island, and *Haw'aa*, on Blunden Island off the western tip of Vargas Island. These 11 groups have, in historic times, amalgamated into five: Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Ucluelet. Constitutionally, each of the five is considered a "band" within the meaning of the *Indian Act*. Under the *Interim Measures Agreement*, however, each is recognized as a First Nation. Readers will note two spelling styles for bands and the places for which they are named (e.g., Hesquiat/Hesquiaht; Ahousat/Ahousaht). The "aht" suffix is today used for the people; the "at" is found in older literature and on maps.

<sup>5</sup>These three documents were products of the 1992 United Nations Conference on Environment and Development (UNCED '92 or "Earth Summit"). The complete title of *Guiding Principles on Forests* is *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation, and Sustainable Development of All Types of Forests*. See United Nations (1992).

<sup>6</sup>The Panel's vision of forest standards and their relationship to international agreements is presented in the pending Panel document *A Vision and Its Context: Global Context for Forest Practices in Clayoquot Sound*.

indigenous peoples. Indigenous peoples are not just one more stakeholder in the process of achieving sustainable development. They have unique collective rights which make them a central part of this process. In addition, they have much knowledge and wisdom to offer. Until the rights, practices, institutions and knowledge of indigenous peoples are fully respected, the goal of sustainable development will continue to be illusory and unachievable. The sooner this fact is recognized, the better. (Cassidy 1994:4)

The goal of the Clayoquot Scientific Panel is to develop world-class standards for sustainable forest management by combining traditional and scientific knowledge. That goal is consistent with the recognition of indigenous peoples' values stated as objectives in the *Convention on Biological Diversity, Agenda 21*, and *Guiding Principles on Forests* (United Nations 1992).

As part of its terms of reference to review and recommend changes to existing management practices for Clayoquot Sound "to make forest practices in the Clayoquot not only the best in the province, but the best in the world,"<sup>7</sup> the Panel was charged with reviewing forest practices standards for their relevance to First Nations' values and interests. To do this, the Panel established a subcommittee of five Panel members: the four Nuuchahnulth—a hereditary chief with a doctorate from the University of British Columbia, and three elders—and an ethnobotanist with research experience in Nuuchahnulth ethnobotany, traditional ecological knowledge, economic botany, and non-timber forest products. The task of this committee was to enunciate important cultural values of the Nuuchahnulth and to evaluate the degree to which forest practices standards recognized and protected these values and culturally important areas.<sup>8</sup> Led by the work of this subcommittee, all Panel members contributed to the development of this document.

This report explains the impact of past forest practices on the resource base of First Nations of Clayoquot Sound. It discusses the recognition of traditional ecological knowledge, Nuuchahnulth concepts and philosophies relevant to the work of the Scientific Panel, culturally important areas, and the current status and economic and employment needs of the Nuuchahnulth of Clayoquot Sound. The document reports findings from the Panel's review of proposed and existing forest practices standards for their recognition of First Nations' knowledge and interests. Finally, it recommends requirements for new forest practices standards covering the spectrum of First Nations' interests and concerns that must be recognized for forest practices in the Clayoquot region to be truly world-class. This report does not provide the detailed standards for incorporating First Nations' knowledge and interests in forest practices. Rather, it establishes a framework for such standards.

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<sup>7</sup>Press release announcing Scientific Panel for Sustainable Forest Practices in Clayoquot Sound, October 22, 1993.

<sup>8</sup>Chapter 4 describes culturally important areas.

## **1.2 Organization of this Report**

Chapter 1 describes the context of this report.

Chapter 2 discusses the importance to the work of the Panel of traditional Nuu-Chah-Nulth concepts and philosophies.

Chapter 3 discusses the characteristics and importance of traditional ecological knowledge.

Chapter 4 reviews cultural heritage features and culturally important areas that are considered relevant to First Nations' history in Clayoquot Sound, and provides background information on the Nuu-Chah-Nulth need for an economic base and employment.

Chapter 5 reviews existing forest practices and related standards with notations on their recognition, if any, of cultural considerations of First Nations.

Chapter 6 recommends a comprehensive set of concepts for incorporating Nuu-Chah-Nulth perspectives into forest practices standards in Clayoquot Sound.

Appendices to the report include references, a discussion of spirituality of land and sacred sites within sacred areas in Clayoquot Sound, an annotated list of documents reviewed, and a list of Scientific Panel members. Published under separate cover are two additional appendices: an inventory of plants and animals culturally important to the Nuu-Chah-Nulth of Clayoquot Sound, and an inventory of Nuu-Chah-Nulth cultural areas by resource use.



## 2.0 Nuu-Chah-Nulth Concepts and Philosophies Relevant to the Work of the Scientific Panel

Nuu-Chah-Nulth concepts and philosophies are integral to the work of the Clayoquot Scientific Panel. To integrate traditional and scientific knowledge in developing world-class standards for sustainable forest management in Clayoquot Sound,<sup>9</sup> the Scientific Panel has:

- recognized and adopted important elements of the Nuu-Chah-Nulth inclusive approach to discussion and sharing to reach agreement;
- recognized the need to incorporate knowledge and cultural values of Nuu-Chah-Nulth peoples into the work and recommendations of the Panel—foremost among these is the sacredness and respect for all things; and
- recognized the need to respect Nuu-Chah-Nulth social structure in framing its recommendations and drawing its conclusions. A dominant element in the Nuu-Chah-Nulth social and cultural fabric is *hahuulhi* (Section 2.3).

The relevance of each of these to the Panel's work is discussed more fully in the following sections, and is reflected in the Panel's recommendations (Section 6.2).

### 2.1 Commitment to Inclusive Process

The first task of the Scientific Panel was to establish a working protocol and guiding principles. The protocol developed by the Panel reflects the Nuu-Chah-Nulth approach to group processes whereby all members participate in determining the issues, information, and actions relevant to the Panel's work.<sup>10</sup> The protocol is characterized by a demonstrable and inclusive respect for one another, for different values, and for data founded both in science and traditional knowledge. It calls for each Panel member to exercise patience, flexibility, tolerance, endurance, and faith in a process and task that are surrounded by conflict and turmoil.

This protocol has created an atmosphere that encourages open discussion and the pursuit of consensus. It has helped the Panel to develop a clearly articulated and inclusive philosophy for its work. For example, the first four general principles espoused by the Panel incorporate traditional Nuu-Chah-Nulth philosophy:

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<sup>9</sup>Clayoquot Sound refers to the 350 000 ha area considered by the Clayoquot Sound Land Use Decision (British Columbia 1993a) and not the water body itself.

<sup>10</sup>Explicit recognition of Nuu-Chah-Nulth values does not deny values of other societies. For example, the Nuu-Chah-Nulth approach to inclusive commitment consistent with the philosophy of *hishuk ish ts'awalk* ("everything is one") differs little from that of Quakers (The Religious Society of Friends).

- 1 The world is interconnected at all levels;
- 2 Human activities must respect...all...life;
- 3 Long-term ecological and economic sustainability are essential to long-term harmony; and
- 4 The cultural, spiritual, social, and economic well-being of indigenous people is a necessary part of that harmony. (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994a:6)

The fourth principle is elaborated upon in this way:

Indigenous peoples live within the landscape from which they and the rest of society extract resources. Because of their longer, often closer connections to nature, the cultural and spiritual relationships of First Nations peoples with their environment are different from those of other cultures. Such cultural and spiritual needs must be accommodated in standards governing land use and resource management. (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994a:7)

## 2.2 Sacredness of and Respect for All Things

The Nuu-Chah-Nulth believe that all things are sacred and deserve to be treated with respect. All entities used as resources (such as a tree, bear, deer, or salmon) are to be treated as gifts from the Creator. Mass degradation of the landscape is unthinkable.

The Nuu-Chah-Nulth phrase *hishuk ish ts'awalk* ("everything is one") embodies sacredness and respect. Respect is explained by Panel member Roy Haiyupis:

Nothing is isolated from other aspects of life surrounding it and within it. This concept is the basis for the respect for nature that our people live with, and also contributed to the value system that promoted the need to be thrifty, not to be wasteful, and to be totally conscious of your actual needs in the search for foods. The idea and practices of over-exploitation are deplorable to our people. The practice is outside our realm of values. (Haiyupis 1994a:1)

With deep respect for other life forms comes the Nuu-Chah-Nulth belief in the spirituality and sacredness of life and of the earth, and in a *oneness* between humans and their environment. This philosophy contributes to a framework for a new type of management or resource stewardship that is ecosystem-based. Haiyupis describes the Nuu-Chah-Nulth view of resource management:

Respect is the very core of our traditions, culture and existence. It is very basic to all we encounter in life...Respect for nature requires a healthy state of stewardship with a healthy attitude. It is wise to respect nature. Respect the Spiritual...It is not human to waste food. It is inhuman to over-exploit. "Protect and Conserve" are key values in respect of nature

and natural food resources. Never harm or kill for sport. It is degrading to your honour...It challenges your integrity and accountability. Nature has that shield or protective barrier [that], once broken, will hit back at you. (Haiyupis 1991:1-2)

**Figure 2.1**



Cone Island, a sacred area to the Nuu-Chah-Nulth, was logged without their consultation.

Forest practices in Clayoquot Sound have contributed to mass wasting of the soil, sedimentation, and reduced fish stocks. Nuu-Chah-Nulth elders of the Scientific Panel have noted many rivers that no longer support their historical numbers of salmon. For example, following a post-logging landslide at Hot Springs Cove, no herring or chum salmon have spawned downstream from the slide. Formerly, many pink salmon were found in the rivers and ocean; 30 years ago, they were “all over the inlets.” In 1994, there were none. Coho salmon have also been severely depleted. In the Cypress [Cypre] River, where salmon spawning was plentiful, logging in the drainage basin and two fish farms at the entrance are seen as the major causes of lack of spawning salmon today (S. Sam, pers. comm., 1994).<sup>11</sup>

Other wildlife also have been affected by logging and associated roadbuilding. Ditidaht Hereditary Chief Queesto, Charlie Jones, described apparent impacts of logging on animals of his area, around the San Juan River at Port Renfrew:

It’s the same way with a lot of the animals we used to hunt for our food. In the early days, we used to hunt elk, deer and bear right here by the San Juan River. They were all so plentiful, you could get anything you wanted. I can remember when you would see bands of wolves up along

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<sup>11</sup>These observations are corroborated by federal Department of Fisheries and Oceans data for Clayoquot Sound (Canada, Department of Fisheries and Oceans 1991).

the river, and there were still plenty of deer around in those days as well... We always had plenty of game for food.

Ever since logging came, there's been no more deer or wolf or elk or beaver. They've all disappeared. Maybe they've been killed off, or maybe they've just moved on to somewhere else. We don't know where the animals have gone. (Jones 1981:37–38)

New forest practices, based on respect for all life, must include a healing or restoration process for some of those rivers, streams, and foreshore areas damaged in the past so that future human generations may use them.<sup>12</sup>

### 2.3 *Hahuulhi*

Prior to the arrival of Europeans in Clayoquot Sound, the Nuu-Chah-Nulth exercised plenary authority over their own territories (Figure 2.2).<sup>13</sup>

Also, we know our boundary lines... These boundary lines we can show on a chart, with the old and the new boundary lines, which can tell you that these boundary lines are very important in the same way that the government is with their boundary lines with the U.S.A. and Canada... All along the Nuu-Chah-Nulth, the whole west of Vancouver Island, had their own territories. (Sam 1993b:6)

All the lands, waterways, shorelines, and offshore islands and waters, even relatively remote areas far inland (e.g., the Ursus Valley, Port Alberni Valley, and Gold River area), fell under this system of ownership, control, and resource use called *hahuulhi* ("private ownership") (Drucker 1951; Ellis and Swan 1981; Haiyupis 1988c, 1992; Bouchard and Kennedy 1990; Sam 1993b). The boundaries of the various resource use sites owned by individual chiefs were known to all, and were formally recounted and reinforced many times through Nuu-Chah-Nulth oral traditions during feasts and other cultural gatherings.

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<sup>12</sup>See also the Panel's general principle 5 (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994a:7); and general recommendation 7 (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994b:24).

<sup>13</sup>Plenary authority over an area is to exercise absolute sovereignty over that area's people, land, and resources.

Figure 2.2



The Atleo River Valley has been a traditional land of the Atleo family for hundreds of years. Logging in this area in the 1980s did not consider this jurisdiction, nor consult with the Atleo family. Prior to logging in the area, the Atleo River was one of the highest yielding salmon streams, and was especially valued for its coho, chum, and steelhead stocks. Government sampling of the river is inadequate to confirm reported decline in fish stocks but does report siltation and colour in the water after logging began (Serbic 1991, 1994; Brown *et al.* 1987).

*Ha hoolthe* [*hahuulhi*]...indicates...that the hereditary chiefs have the responsibility to take care of the forests, the land and the sea within his *ha hoolthe* and a responsibility to take care of his *mus chum* or tribal members. (Haiyupis 1992:1)

Embedded within the *ha hoolthe* initiated from his [the chief's] rights to, and ownership of tribal territories, lies the key to the social and cultural practices, tribal membership and property ownership, economical, environmental and resources controls to promote effective enhancement levels to sustain life for the tribe today and for generations to come. (Haiyupis 1988c:1)

When the [Clayoquot Sound] War ended [in 1811], the Ahousahts had a big territory with a lot of fish in every river. Also they gained all the forestries and resources around Clayoquot Sound, which is very important to mention to the government because this war cost so much to us. The territories on each river, each warrior got...*hahuulhi* ["private ownership"]. (Sam 1993b:5)

The concept of *hahuulhi* is important to the work of the Scientific Panel for several reasons because *hahuulhi*:

- recognizes First Nations' historical use and management of land and water resources of Clayoquot Sound;
- is both a source and reflection of Nuu-Chah-Nulth traditional knowledge of the area;
- embodies the Nuu-Chah-Nulth belief in sustainable resource use practices; and
- provides a potential framework for co-managing these resources in the future.

## 3.0 Recognition of Traditional Ecological Knowledge

Speculation and reflection upon the nature of the universe and of man's place in the total scheme of things have been carried out in every known culture. (Kluckhohn 1949:356)

Indigenous peoples' knowledge of their environment, its processes, and interrelationships—variously termed “indigenous knowledge,” “traditional ecological knowledge,” or “traditional environmental knowledge” (TEK)—has come to be recognized as an important source of information about species and ecosystems that parallels and complements scientific knowledge.

This chapter introduces TEK and presents an overview of how TEK is perceived and used globally, in North America, and in Clayoquot Sound. A list of TEK characteristics is presented, and the origins and methods of scientific knowledge and TEK are examined. The importance of incorporating TEK into environmental planning is discussed, and co-management is presented as an effective means of including indigenous people and their knowledge in planning and managing their traditional territories.

### 3.1 Recognition of TEK Globally

In 1982, the Commission on Ecology of the International Union for Conservation of Nature and Natural Resources (IUCN) initiated a new direction in ecological studies by convening a symposium on traditional lifestyles, conservation, and rural development. Two years later, a working group on TEK was established by the Commission (Williams and Baines (editors) 1993:1). Several publications resulted from the establishment of this group (e.g., Freeman and Carbyn 1988). These and previous publications served to increase awareness in the scientific world of the value and place of TEK in understanding environments and living sustainably within them.

The Brundtland Commission report, *Our Common Future* (World Commission on Environment and Development 1987), drew further attention to the contributions of indigenous knowledge and, from then on, TEK has gained prominence in the international debate about the environment. Several recent publications have treated issues relating to TEK and sustainable development, including ethics, partnerships with indigenous peoples, TEK documentation, and application (Johnson (editor) 1992; Knudtson and Suzuki 1992; Berkes 1993; Cunningham 1993; Inglis (editor) 1993; Williams and Baines (editors) 1993; Cassidy 1994). Economic botanists and ethnobiologists recently have been particularly concerned with the ethical issues of intellectual property rights and fair compensation for shared knowledge (Boom 1990; Posey 1990a; Cunningham 1993; Greaves (editor) 1994). Indigenous peoples throughout the world have been speaking about these issues from their own perspectives (Moody (editor) 1993). Each of these issues is explicitly addressed in recent international

agreements including the *Convention on Biological Diversity, Agenda 21*, and *Guiding Principles on Forests*.<sup>14</sup>

Although TEK is rapidly becoming an acceptable source of information in non-indigenous society (Ford 1979; Posey 1990b),<sup>15</sup> there is some resistance, partly attributable, according to Nakashima (1993:100), to “an elitism and ethnocentrism that runs deep in much of the western scientific community.” The resistance may be based upon fundamental differences in world view. Clarkson *et al.* (1992) explained that the world views diverge over

the nature of humans' relationship to the planet; the place of self and community in the actualization of that relationship; conceptions of the organic matter of the planet; reasons for utilizing organic matter of the planet; and in the vision for our existence as it related to sustainability. (Clarkson *et al.* 1992:11)

Another perspective of this difference is held by DeFaveri (1984) wherein the indigenous world view is characterized by oneness with the universe while the western world view is characterized by individualism and isolationism. The indigenous world view holds that everything is related and connected in some way (*hishuk ish ts'awalk*), whereas the western world view may recognize holistic subsystems within the universe yet may act as though reality is not necessarily made up of related or connected parts. Brumbaugh and Lawrence (1963:136), philosophizing about this phenomenon in education, note that while the “separations [of reality] are useful, even vital,” they have been overdone, and “ignore the basic character of the experiential continuum.” In contrast to the compartmentalization of reality which is arguably characteristic of the western world view, the indigenous world view is characterized by wholeness, connectedness, and interrelationships (Kluckhohn 1949; Bryde 1971; Sealy 1973; DeFaveri 1984; Berger 1985; Friesen 1985; Kelly and Nelson 1986; McCaskill 1987).

### 3.2 TEK in North America

McCaskill (1987:155–156) noted that there “exists in Canada a wide range of Indian cultures. Despite the variations, however, a common thread runs through each of these cultures. That thread is a common spiritual worldview...that all things are related in a sacred manner.” Clutesi (1969:9), a Nuu-Chah-Nulth of the *Tse-shahlt* Nation, provided a rationale for a traditional spiritual world view. He said of the Creator, “he also created all living things. All the fish, salmon, animals, plants, trees. Everything in this world was made by him.”

TEK is an integral aspect of indigenous cultures in North America. Some examples are provided here. Many others are cited in publications such as

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<sup>14</sup>These documents, outputs of UNCED '92 or “Earth Summit” at Rio de Janeiro in June 1992, are reviewed in detail in the pending Panel document *A Vision and Its Context: Global Context for Forest Practices in Clayoquot Sound*.

<sup>15</sup>See also the international agreements noted.



Johnson (editor) 1992, Williams and Baines (editors) 1993, and Inglis (editor) 1993.

Black Elk, a Lakota Sioux of the Pine Ridge Reservation in South Dakota, expanded upon the world view in this way:

We regard all created beings as sacred and important, for everything has a *wochangi*, or influence, which can be given to us, through which we may gain a little more understanding if we are attentive. We should understand well that all things are the works of the Great Spirit. We should know that He is within all things; the trees, the grasses, the rivers, the mountains and all the four-legged animals, and the winged peoples; and even more important, we should understand that He is also above all these things and peoples. (Black Elk, quoted by Brown 1986:38–39)

It is from this perspective—that all things are the works of the Great Spirit—that another Nuu-Chah-Nulth, Simon Lucas (*Klah-keest-ke-uss*), was quoted as saying, “Those animals have a right to those forests too. They belong there—it is as much theirs as ours. If the water can no longer support the salmon, if the land can’t support the deer and bear, then why do we think it will support us?” (Knutson and Suzuki 1992:xxviii)

Elsewhere, Simon Lucas elaborates on this perspective:

The greatest spiritual teaching of our elders is that we must “treasure day so that we will treasure life.” During the day, all of life is visible. Within old-growth forests, we are totally surrounded by creation, and we can deepen our understanding and achieve humility with respect to our place in creation. Without this humility, engendered within old-growth forests, we are prone to feel superior to other forms of life. We can begin to fail to account for the simplest forms of the networks of life. Without humility, our attitude towards other living things can become destructive. (Lucas 1989:44)

Gitksan elder Marie Wilson expressed similar thoughts about the concepts of sacredness and interconnectedness:

Our ancients...sought reason for their existence and understanding of their role in the created whole of their environment. They required this self-knowledge to validate and dignify their existence.

These Gitksan came to a firm decision that all created life was equal, necessary and a vital part of the interconnected whole that we now call Planet Earth. They believed that this interconnected whole was created to be in perfect balance and must remain so if all parts were to survive in comfort and harmony. (Wilson 1989:10)

In mainstream North American society, the validity of traditional knowledge has frequently been ignored or, at best, undervalued. Residential schooling, which many contemporary First Nations people attended, is one example: First Nations' languages and cultures were actively and firmly suppressed in these

schools, and children were taught that the dominant European-based lifestyles and knowledge bases were superior to their own.

### 3.3 TEK in Clayoquot Sound

The Nuu-Chah-Nulth people have used their observational and deductive skills since time immemorial to enable them to survive. (See, for example, Ellis and Swan 1981; Turner and Efrat 1982; Turner *et al.* 1983; Bouchard and Kennedy 1990.)

Stanley Sam, a Nuu-Chah-Nulth elder, speaker, and historian on the Scientific Panel, provided an example of TEK and how it was used to manage a particular resource:

The month of the herring spawn is called *aayaqamlth*...“spawning of herring” and the herring don’t just spawn right there. They have a very light spawn at the beginning called *tl’itl’itsmis*...[which] means there is a very light spawn...until they find the main place...to have a heavy spawn...They kept all the people away from the spawning area when they see that it is going to spawn there. (Sam 1993c:1)

The Nuu-Chah-Nulth of Clayoquot Sound have developed complex systems of naming and classifying natural phenomena. Appendix V itemizes and documents specific knowledge of over 270 different species they recognize.<sup>16</sup> The tables include 20 species of trees; over 30 species of shrubs; over 80 species of herbaceous vascular plants; over 25 species of bryophytes, fungi, lichens, and algae; 20 mammal species of land and sea; over 25 bird species; 35 fish species; 36 marine shellfish and other invertebrate species; and a few terrestrial invertebrates, incompletely documented. The list is not complete; further research will undoubtedly expand the documentation.

### 3.4 Characteristics of TEK

The following list of characteristics of traditional ecological knowledge is adapted from the research and writings of Clarkson *et al.* (1992); Berkes (1993); Doubleday (1993); Tyler (1993); Wavey (1993); Mitchell (1994); and Cole (n.d.). The list incorporates a non-indigenous view of traditional ecological knowledge but is based on discussions with, input from, and writings by indigenous people.

Traditional ecological knowledge is:

- *Holistic*: all things are interconnected and nothing is comprehended in isolation;
- *Intuitive*: based on deeply held holistic understanding and knowledge;

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<sup>16</sup>Appendices V and VI are published under separate cover.

- *Qualitative*: knowledge is gained through intimate contact with the local environment, while noting patterns or trends in its flora, fauna, and natural phenomena. It is based on data collected by resource users through observation and hands-on experience;
- *Transmitted intergenerationally by oral tradition*: teaching is accomplished through stories and participation of children in culturally important activities;
- *Governed by a Supreme Being*: the Creator defines a moral universe with appropriate laws;
- *Moral*: there are right ways and wrong ways to relate to the environment;
- *Spiritual*: rooted in a social context that sees the world in terms of social and spiritual relations among all life forms. All parts of the natural world are infused with spirit. Mind, matter, and spirit are perceived as inseparable. Traditional ecological knowledge, in practice, exhibits humility and a refined sense of responsibility; it does not aim to control nature;
- *Based on mutual well-being, reciprocity, and cooperation*: these promote balance and harmony between the well-being of the individual and the well-being of the social group;
- *Non-linear*: views time and processes as cyclical;
- *Often contextualized within the spiritual*: may be based on cumulative, collective practical and spiritual experience. Traditional ecological knowledge may be revised daily and seasonally through the annual cycle of activities (as required);
- *Communal*: general knowledge and meaning are shared among individuals horizontally, not hierarchically; and
- *Promoting of stewardship*: takes a proactive approach to environmental protection and an ecosystem approach to resource management.

The indigenous perspective can be summarized more succinctly as:

- The Creator made all things one.
- All things are related and interconnected.
- All things are sacred and must be respected.
- Balance and harmony are essential between all life forms.

The Nuu-Chah-Nulth phrase *hishuk ish ts'awalk* ("everything is one") epitomizes a holistic world view, and has been adopted by the Clayoquot Scientific Panel to describe the ecosystem management approach to forest practices the Panel recommends.

### 3.5 Scientific and Traditional Knowledge: Different Origins, Common Goals

Knowledge is “the fact or condition of knowing something with familiarity gained through experience or association” (Webster’s 1981). People acquire knowledge in entirely different ways; even so, they often reach identical conclusions.

As an example, consider traditional medical knowledge: it is acquired through the rigors and methodology of a vision quest, in which persons isolate themselves and undergo fasting, cleansing, and other ritual activities to receive inspiration and medical knowledge from supernatural powers. Although the methodology of the vision quest is unfamiliar to the modern medical community, the knowledge gained often coincides with that of modern medical scientists, acquired by wholly different methods.

The acquisition of ecological knowledge or knowledge about the environment can also be gained through different experience. There are three major distinctions between scientific knowledge and traditional ecological knowledge.

- First, traditional ecological knowledge is profoundly spiritual (The Creator made all things one). The approach we call science abandoned spiritualism as an explanatory approach during the Renaissance (Hoare *et al.* 1993) and devised an impersonal method that was “inter-subjectively testable” (Popper 1959); that is, any individual repeating the same experiment should obtain identical results.
- Second, traditional ecological knowledge adopts as a fundamental principle that all things are related and interconnected: *hishuk ish ts’awalk*. Scientific ecological knowledge approaches this principle, but must proceed differently in its approach to understanding nature. Because of the primacy of repeatable experiments, any single experiment must sever and ignore some natural connections. The experimenter’s ingenuity lies in choosing the appropriate bounds of the experiment.
- Third, the recipient of traditional ecological knowledge is an integral part of the system, while the researcher of scientific ecological knowledge is deemed to perform best when attempting to behave objectively as a dispassionate observer of the system.

Despite these differences in the manner in which knowledge is gained, the goals may be identical. Both approaches seek to understand interrelationships, including humanity’s place, within a forest ecosystem.

There are two important reasons why traditional ecological knowledge should be more prominent in forest management: its length of experience and complementarity to scientific knowledge.

In Clayoquot Sound, scientific knowledge is based on experience of the west coast rainforest that has lasted for less than one-tenth of the lifetimes of the dominant trees in the forest. The collectively shared experience of the

Nuu-Chah-Nulth, on the other hand, reaches far back into history, passed on by centuries of oral tradition. Furthermore, most scientific studies are individually based on, at most, a few years' observation, whereas the knowledge of local people is reinforced by a lifetime of experience.

Traditional ecological knowledge complements scientific ecological knowledge by providing an external, independently derived reference standard in two ways. First, it places people firmly within the system, as an integral part, and does not remove them. Scientific knowledge, by reason of its method of acquisition, must first remove the knowledge recipient from the system to play the role of dispassionate observer. Second, traditional ecological knowledge does not depart from its holistic view. Acquisition of scientific ecological knowledge often begins from a holistic view, but then exploits repeatable, reductionist experiments, only to resynthesize these pieces back into a holistic view.

Neither scientific nor traditional knowledge is free of errors. Nonetheless, given the commonality of their ends—especially concerning humanity's place in nature—using both broad approaches to gaining knowledge is beneficial. The value of traditional knowledge should be emphasized because it has so often been ignored.

The Scientific Panel perceives the integration of scientific and traditional ecological knowledge as an essential part of developing forest standards that will ensure sustainable ecosystem management.

### **3.6 Incorporating TEK in Environmental Planning**

Canadians are among those seeking appropriate means of recognizing and including First Nations' interests in environmental planning and decision-making. For example, Freeman *et al.* (1993) in *Recommendations for a National Ecological Monitoring Program* state:

- 4 *Native communities.* A particularly important consideration in northern Canada, where native communities are stewards for substantial parcels of land, is the need for an open, bi-directional consultation with local communities. This will be crucial to the successful development of [ecological] monitoring programs. *Native communities and groups should be involved from the beginning of program development [emphasis ours]...Native peoples are likely to have vested interests in particular environmental problems, especially those related to the health of game populations, as well as local public health issues. Institutions engaged in monitoring programs should communicate their results to local communities.*

The traditional knowledge of local communities should also be recognized and incorporated into the monitoring program, where possible. In addition, some native organizations are developing their own environmental databases (e.g., hunting, fishing, and trapping

activities) in conjunction with their emerging responsibilities under land claims settlements. (Freeman *et al.* 1993:24)

The importance of incorporating TEK in environmental impact assessment is discussed by Sallenave (1994). He notes that TEK can be used to help provide ecological baseline data in environmental impact assessment (EIA), and also, to provide a framework or method of linking ecological and social components of the human environment. He contends that the inclusion of TEK can be used as a mechanism for aboriginal peoples to become an integral part of environmental planning and research in a given area. Examples are provided of cases in which TEK has been integrated in the EIA process, and recommendations are made for increasing such integration and making it a more general practice. However, Sallenave also warns about barriers to integrating TEK:

The first...is perceptual. There is a distinct difference between what aboriginal peoples interpret as "significant" impacts and what policy makers and proponents of development projects perceive as significant impacts. This poses an obstacle to both the effective monitoring of impacts and the possible incorporation of TEK into the EIA process. The chasm between the two perceptions is understandable since the reactions of a society or culture to development cannot be understood outside the context of its particular history; however, the continued exclusion of aboriginal peoples and their traditional knowledge only exacerbates the problem. To bridge the gap between the perceptions and to develop a meaningful dialogue among all parties, aboriginal peoples must play a greater role in the EIA process.

A second barrier...is the scepticism within the scientific community about the credibility or reliability of aboriginal information elicited through interviews. Over the past few years this view has been challenged increasingly from within the broad scientific community; however, in general, EIA researchers rely primarily on "hard" data—such as biophysical data. This reliance on "objective" data is found particularly among scientists on policy or regulatory committees, who tend to dismiss aboriginal knowledge as subjective, anecdotal, and unscientific.

The third, and perhaps most overwhelming barrier...is the political obstacle. The decision-making process of EIAs would have to be altered significantly to accommodate the use of TEK, and such alteration may not be politically palatable to policy makers.

Change must be considered, however. The research and application of traditional knowledge to the EIA process can be successful *only if the following conditions are met: aboriginal peoples must control the research and the application of traditional knowledge, and they must have the decision-making authority regarding the use of the research results* [emphasis ours]. (Sallenave 1994:19)

The Clayoquot Scientific Panel has managed to overcome some of these barriers. Other initiatives, including the *Interim Measures Agreement* and Long Beach Model Forest project,<sup>17</sup> also reflect recognition of traditional ecological knowledge of the Nuu-Chah-Nulth peoples. The Panel believes that Clayoquot Sound can become a model for including TEK in environmental impact assessment and other aspects of ecosystem management.

### 3.6.1 Co-Management as a Model for Integration

“Co-management” of resources is becoming widely recognized as a means of incorporating aboriginal knowledge, values, and decision-making capabilities in the management process. Schwarber (1994) defines co-management as “the shared decision-making *process*, formal or informal, between a government authority and a Native or other user group for managing a species of fish or wildlife, or other resource.” He further notes that:

a major strength of co-management is its flexibility to address difficult management situations. It is not unusual for conflict to arise when Native customary and traditional resource practices come into contact with Western resource management policies. By involving Native users in the initial development and operation of a co-management regime, conflicts may be minimized and resource protection enhanced. This shows one of the important strengths of co-management—its adaptive ability to resolve management issues when two or more separate legal and cultural systems are applied to the same resource. (Schwarber 1994:1)

Schwarber lists eight levels of co-management increasing in the level of sharing of authority with a community: informing; consultation; communication; regional councils and advisory committees; cooperation; management boards; partnership; and community control.<sup>18</sup>

Many examples and models of co-management by First Nations and government agencies are available (Inuvialuit Game Council and North Slope Borough Fish and Game Management Committee 1988; Pinkerton 1989; U.S. Fish and Wildlife Service 1991; Nakashima 1993; U.S. Fish and Wildlife Service and Alaska Department of Fish and Game 1993; U.S. House of Representatives 1993; Balick *et al.* 1994; U.S. Fish and Wildlife Service, Alaska Sea Otter Commission, Alaska Department of Fish and Game 1994). The federal government of Canada and the Haida Nation have a co-management agreement for Gwaii Haanas National Park

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<sup>17</sup>The Long Beach Model Forest is one of 10 model forests being developed through the federal government’s “Partners in Sustainable Forestry Program,” one initiative funded under Canada’s 1991 *Green Plan*. A “two-culture” model forest best describes the Long Beach Model Forest, which is being developed in close cooperation with the Central Region Board of the Nuu-Chah-Nulth Tribal Council. Model forests are intended to be blueprints of sustainable development that provide examples of what can be achieved when the best forest practices, management techniques, and technology are applied to the stewardship of Canada’s forests.

<sup>18</sup>Schwarber’s levels of co-management draw on the work of Berkes *et al.* (1991) and Osherenko (1988).

Reserve on Moresby Island, in Haida Gwaii (Queen Charlotte Islands). Similar co-management arrangements are anticipated between the government of British Columbia and the Haisla Nation in the management of the Kitlope watershed region on the central coast of British Columbia.

The *Interim Measures Agreement* (between British Columbia and the Haisla of the Tla-o-qui-aht First Nations, the Ahousaht First Nation, the Hesquiaht First Nation, the Toquaht First Nation, and the Ucluelet First Nation, 1994) provides the basis for Nuu-Chah-Nulth co-management of lands and forests in Clayoquot Sound. The Scientific Panel supports this concept (see Section 6.2).



## 4.0 Nuu-Chah-Nulth Culturally Important Areas

The identification and recognition of First Nations' values and use of their traditional territories is an important precursor to incorporating these values and uses in standards for current forest practices. This chapter first discusses the nature and importance of "sacred areas" from a Nuu-Chah-Nulth perspective. It then describes and characterizes Nuu-Chah-Nulth "historic areas"—including "cultural heritage sites," the only type of cultural area currently protected by legislation. Current and future use of traditional territories and resources by Nuu-Chah-Nulth people in the Clayoquot Sound region are also discussed.

### 4.1 Sacred Areas

Sacred Areas are pivotal to Nuu-Chah-Nulth culture. They are important to the well-being, survival, and sustenance of the Nuu-Chah-Nulth in the same way that any logging company may consider forests to be [to the company's survival]. (R. Atleo, pers. comm., Nov. 1993)

Various kinds of sacred areas have names in the Nuu-Chah-Nulth language and different types of uses. For example, a sacred prayer pool is called *uusaqwulhlh*. A diving place is called *t'apsulh*. Both prayer pools and sacred caves are secret places, whereas a diving place can be generally known to the populace. Training at a sacred place to get spiritual power is called *uusimich* [*7uusimch*] (Sam 1992a:1–3). The following quotations from Stanley Sam's article entitled *Sacred Places* further illustrate some aspects of sacred areas.

When you are praying in that prayer pool, you have to use your own language, cause in English can't go anywheres near the praying of that thing, what he's praying for. (Sam 1992a:3)

While English is acceptable in principle, the Nuu-Chah-Nulth language is a gift from the Creator and should be used as intended. Failure to use the gift would violate sacred spiritual principles that would nullify the purpose of the prayers.

But he [Sam's father] showed me what plants to use, he showed it to me and he just said "up there" to me, he was old when he told me. So I went there [to his father's prayer pool] once. (Sam 1992a:3)

Some of them [prayer pools] are just about behind the mountain, some of them are, well, just above the mountain. And they have no trail, they don't show trail because it's sacred, but you gotta know where you're going. (Sam 1992a:6)

[Of course people who have prayer pools have them in] their own territory. I don't know where the Hesquiaht or Tla-o-qui-aht [prayer pools are], but they claim they have [them] on Meares Island. (Sam 1992a:6)

When our people sought spiritual power, called *Tuusimch* in our language, they visited a very sacred pool known as *Tuusaqulh* where they used special medicines called *tich'im*. Each family had its own special medicine which was handed down from generation to generation. (Sam 1992b:1)

Then he received a vision, called *ch'ihshitl*, from the animals. The animals who appeared in a vision were often land otter, eagle, mink, squirrel, and a little brown bird [possibly thrush or winter wren]. Sometimes when these animals appeared in a vision they brought with them a certain rattle or song, or the special family-owned medicines... The Indian doctor can be paid with a canoe or with some tools... [Doctor Atleo's] power was a land otter that turned into an eagle. He received this power in a vision when he was trapping in Tofino Inlet... Doctor Atleo was my great-great-grandfather... The last Indian doctor of the Ahousat was a woman. She became an Indian doctor by obtaining a vision of black chitons turning into snails. (Sam 1992b:1-4)

This account merely hints at the enormous scale of spiritual practice incorporated into the social and economic fabric of traditional Nuu-Chah-Nulth societies. Every family participated in spiritual activities because it was recognized that all things in the physical realm are derived from the spiritual realm. Success in this physical world depends upon effective communication with the spiritual world.

Direct conflict may arise between the economic interests of forestry and the need to preserve areas for their sacred values. Ancient cedar trees, because of their great size, cultural value, and perceived power, are especially valued by the Nuu-Chah-Nulth and other First Nations of the northwest coast. These trees also have very high economic value. Many enormous cedars logged by forest companies from the Hesquiat Peninsula in the past (Figure 4.1) might have been left alone under a Nuu-Chah-Nulth value system.

Figure 4.1



Giant cedar stump of Hesquiat Peninsula.

Sacredness is not limited to specific, localized areas, but also includes culturally important species. For example, the value of salmon to the Nuu-Chah-Nulth exceeds the species' economic worth. Salmon are a highly regarded life form, traditionally treated with reverence. The destruction of salmon habitat and depletion of salmon through inappropriate or faulty forest practices are seen by the Nuu-Chah-Nulth not only as a loss of food and income, but also as a loss of a part of themselves.

For some, the entire Clayoquot River Valley is considered sacred:

The power of the spiritual history of the people who lived there, perhaps at the latest in the early part of the previous century, still has to be there. The specific sites for those spiritual searches and vision quests, to me, seem apparent...Nature suggests to us with all its might that this is the central cathedral for meditation and cleansing in readiness for major hunts and excursions. This is where the greatest bear and whale hunters entered into harmony with the Creator and Nature. This is even the valley where those seeking and given healing powers found their alliance with the spiritual for good and destructive powers...Plants and medicines used primarily for the *oo simtch* [*7uusimch*] [training] were obtained in the valley.

Today, Clayoquot Valley is encountering a very serious threat from the outside world in the logging industry...Even allowing for a passage through the valley [e.g., a road] would certainly destroy something of the spiritual treasure and quality that is there. (Haiyupis 1994b:2)

Figure 4.2



Catface Mountain is a place featured in Nuu-Chah-Nulth cultural traditions (see Table 1). At the base of the mountain is a log dump site, which Nuu-Chah-Nulth people have identified as deleterious to the spawning herring. The beach below Catface Mountain is the boundary for people living on Flores Island.

Table 1 provides examples of sacred or special sites that have been identified within the Clayoquot Sound area. There are many others.<sup>19</sup> Some, including some of those listed in the table, have already been damaged or destroyed by logging activities.

Places of spiritual significance and localities where purification and cleansing were carried out are widely scattered throughout the landscape. These places are still essential for Nuu-Chah-Nulth cultural and spiritual well-being. However, because of the personal and private nature of most areas, and because they often do not have specific visible attributes for identification, these places are often not considered in forestry planning and activities.

Appendix II contains a discussion of the spirituality of land to the Nuu-Chah-Nulth people and of sacred sites within sacred areas.

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<sup>19</sup>The Clayoquot Nuu-Chah-Nulth place name study of Bouchard and Kennedy (1990) identifies a total of 48 places as sites where training for spiritual power was undertaken, 26 burial places, and 15 sites associated with transformed rocks (i.e., where humans or other forms were changed into rocks at some point in the past, as recounted in Nuu-Chah-Nulth oral traditions). See Appendix VI, under separate cover.

**Table 1**                      **Examples of sacred areas in the Clayoquot Sound region**

<b>Place (general)</b>	<b>Type of area</b>	<b>Reference</b>
Meares Island	Caves, used for spiritual training	Sam 1992a:6
Hesquiat, mountain	Cave, used for spiritual training	L. Paul, pers. comm., 1994
Sharp Point (diving place)	Training place for players of <i>lehal</i> (gambling stick game)	Sam 1992a:11
Kennedy Lake and Lennard Island	Diving caves, joined together	Sam 1992a:11
<i>wanachas</i> (Bouchard and Kennedy 1990:#801) (Lone Cone Mountain, Meares Island)	Undetermined sacred sites; people anchored their canoes there during the Great Flood	R. Atleo, pers. comm., 1993; Sam 1992a:13–14 does not consider it sacred, but important historically
<i>huhuupan'u7as</i> (Bouchard and Kennedy 1990:#728) (behind Lone Cone)	Where they found the “ice age” baby who became a chief	S. Sam, pers. comm., 1993
<i>nuchts'uu</i> (Bouchard and Kennedy 1990:#538) (McKay Island/Cone Island)	Training and purification for whalers	S. Sam, pers. comm., 1993; R. Atleo, pers. comm., 1994
Moyeha River area, way up	Man turned into a whale rock there	Sam 1992a:17
<i>muuyahi</i> (Bouchard and Kennedy 1990:#555) (Moyeha River area at head of Herbert Inlet)	Undetermined sacred sites, including a waterfall that cured a man of blindness	Sam 1992a:15; Bouchard and Kennedy 1990
<i>wa7uus</i> (Catface Mountain)	Caves, prayer pools, training areas for whale hunting chiefs; obscured by clearcut	Sam 1992a:14–15; R. Atleo, pers. comm., 1993
<i>ch'itaapi</i> (Bouchard and Kennedy 1990:#595) (Catface Mountain)	A thunderbird came down from the top and got a whale drifting at Monks Island	S. Sam, pers. comm., 1993
<i>ts'atikwis</i> (village site in Epper Passage area, north from Vargas Island)	Prayer pool (ancient ladder of twisted cedar withes found there by loggers)	Sam 1992a:15
Near <i>sasachk'a</i> (on east side of Herbert Inlet, near Gibson's Cove)	Caves, used for spiritual training	Sam 1992a:16
A certain rock (near Long Beach) (“if you pluck the grass on this rock, it floods, it rains heavily”)	The “bum” of a man who turned into a rock; he was a Ditidaht (Nitinaht) warrior who succumbed to the “wolf power” of a Clayoquot man	Sam 1992a:17
Waterfalls, “quite a few,” unspecified	Sacred spiritual places for prayer	Sam 1992a:19
“Hippy Point”	The two islands behind the point were sacred areas; used to plan for war	S. Sam, pers. comm., 1994
Blunden Island	The Ahousaht people survived there, about 15 generations ago; “very special place for our people”	S. Sam, pers. comm., 1994
Clayoquot River Valley	Important sacred area for those seeking power and training to get power; “powerful spiritual element”	Haiyupis 1994a:2
Hisnit Lake	Important sacred area and medicine gathering site for the Manhousaht	S. Sam, pers. comm., 1994
Small offshore islands with fresh rainwater pools	Important bathing and cleansing places for those seeking power	E. George, pers. comm., 1994

## 4.2 Historic Areas

Historic areas can be defined broadly as any places or sites that feature in the history of a group of people. For the Nuu-Chah-Nulth, these include known village or camping sites, places where events in traditional stories or “histories” occurred or are alluded to, and places known to have been used for resource gathering, religious practices (i.e., sacred areas, Section 4.1), or other purposes. Most of these places have physical evidence of their past use; such sites are classified as “archaeological and historical sites.” They are then legally classed as “heritage resources,” which also include architectural and paleontological sites and objects, as noted by Wilson *et al.* (1991).

Archaeological and historical sites consist of the detectable physical evidence left by past human occupation and/or activity. These sites can range from shipwrecks to old villages, from cabins to fish traps, burials and a wide variety of others. *Although they are an important part of a people's culture, ethnographic or ethnohistoric sites, or places identified by knowledgeable informants do not qualify as heritage sites unless there is a corroborative physical evidence [emphasis ours].* Such places can be simply geographical names, places where activity such as clam digging occurred, village sites, or mythological or spiritual sites. Again, an ethnohistoric site may also be an archaeological site *if physical evidence is present [emphasis ours].*

Archaeological sites are sites that can be investigated only by archaeological methods (e.g., excavation), whereas historical sites can be investigated by both examination of *written records [emphasis ours]* and archaeological methods. (Wilson *et al.* 1991:1–2)

The emphasis on physical and written evidence denies the many sites whose significance and existence is communicated by oral traditions (see, for example, Table 1). Failing to recognize areas of historical use identified in oral histories has also occurred within the Nuu-Chah-Nulth community. For example, stands of culturally modified trees in the Bedwell River–Ursus Creek area are well known to the elders but poorly known by the younger generation of Nuu-Chah-Nulth.

### 4.2.1 Cultural Heritage Sites: A Limiting Concept

Cultural heritage sites—including archaeological sites such as middens, burial sites, habitation sites, culturally modified trees and wood, and rock art—are the only type of First Nations' cultural sites generally recognized as legally requiring consideration for protection. Many of the documents reviewed by the Panel refer to such sites, including: *Development Plan Guidelines, Vancouver Forest Region* (B.C. Ministry of Forests 1993c); *Coast Planning Guidelines* (B.C. Ministry of Forests 1992a, 1993a); *Clayoquot Sound Forest Practices Standards* (B.C. Ministry of Forests 1993b); *British Columbia Archaeological Impact Assessment Guidelines* (Apland and Kenny (editors) 1992); and *Cave Management Handbook (Including Cave/Forestry Guidelines for the Vancouver Forest Region)* (B.C. Ministry of Forests 1990a).

Figure 4.3



These pictographs on a cliff across from Wiley's Cove qualify as a cultural heritage site under the *Heritage Conservation Act*. This site marks the boundary between Manhouzat and Ahousat territories. The bird was painted from a canoe, using paint made from tree pitch and charcoal.

Cultural heritage sites are currently defined and protected under the *Heritage Conservation Act* (Chapter 165, 1989). This act defines "heritage" as something "of historic architectural, archaeological, palaeontological or scenic significance to the Province or a municipality," and a "heritage site" as land (designated or not, and including land covered by water) of heritage significance.

Part 2, Provincial Heritage Conservation, protects heritage sites by stipulating:

No person shall, except as authorized by a permit...knowingly

- a) destroy, desecrate, deface, move, excavate or alter a Provincial heritage site, or a heritage object, designated under this Part;
- b) destroy, desecrate or alter a burial place of historic or archaeological significance or remove skeletal remains from it;
- c) destroy, deface or alter a North American Indian rock painting or rock carving of historic or archaeological significance; or
- d) destroy, deface, alter, excavate or dig in a North American Indian kitchen midden, shell heap, house pit, cave or other habitation site, cairn or fortification.

It must be stressed that culturally important sites currently qualifying for protection are limited to those substantiated by physical and/or written verification. Furthermore, even sites that may have qualified for legal protection have been inadvertently destroyed. Clayoquot Sound, alone, has many examples where cultural heritage sites have been destroyed by past logging activities. One is *?ayisaqhl* Creek on the Hesquiat Peninsula, where clearcutting to the edge of

the creek resulted in the disappearance of traditional fishing weirs. In other instances, cultural heritage objects have been removed from their context without permission. For example, a Nuu-Chah-Nulth tradition is to leave unfinished canoes at the carving site in the forest if the canoe maker dies, as a mark of respect to the deceased person. Yet, in some instances, well-intentioned forestry workers have removed canoes found in the woods and brought them to the Nuu-Chah-Nulth people.

In many cases forestry standards group cultural heritage sites together with scenic and recreational values. However, these sites must be recognized in their own right as separate and important features of the forest ecosystem, distinct from aesthetic or recreational features. Also, as awareness of traditional ecological knowledge increases, there is growing recognition of the need to broaden the definition of sites requiring protection, beyond what are currently classified as "cultural heritage sites" to include a wider array of cultural areas, regardless of whether actual physical evidence of their past use exists. Sacred areas, in particular, tend to be omitted from protection. The effect is to protect a culture's rubbish heaps (e.g., middens) while ignoring its spiritual basis.

#### **4.2.2 Historic Areas: A Broader Definition**

Efforts are underway in British Columbia to expand the definition and recognition of culturally important areas beyond legally defined cultural heritage sites. Bouchard and Kennedy's *Clayoquot Sound Indian Land Use* (1990), and Kennedy *et al.*'s *Vancouver Island Cultural Resource Inventory* (1993) are examples of documents recommending such an expansion.

Working with historical documents, contemporary literature sources, and contemporary Nuu-Chah-Nulth elders,<sup>20</sup> Bouchard and Kennedy (1990) recorded names for, and characterized by location and associated use or cultural feature, over 900 Nuu-Chah-Nulth areas and sites in the Clayoquot Sound region. The purpose of their work was "to record information that will assist in the development of forest management plans for the Clayoquot Sound region which are sensitive to areas of cultural significance to the local Indian people" (Bouchard and Kennedy, 1990:1). This work represents the most complete written account of Nuu-Chah-Nulth geographical knowledge to date. It incorporates important traditional ethnobiological and ecological information, including data on site use, traditional ownership, and occupancy. Two-thirds of the place names, all located on detailed maps, were provided by Luke Swan and Peter Webster.

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<sup>20</sup>Bouchard and Kennedy's 1990 study involved many Nuu-Chah-Nulth consultants, including: Stanley Sam of Ahousat, a member of the Clayoquot Scientific Panel; the late Luke Swan of Openit and Ahousat, working with ethnozoologist David Ellis; the late Peter Webster of Ahousat, working with ethnographer and educator Denis St. Claire; Jessie Webster of Ahousat; Dr. George Louie, formerly of Openit and Ahousat; Viola Louie, formerly of Ahousat; James Swan of Ahousat; the late Alice Paul, mother of Larry Paul, a member of the Clayoquot Scientific Panel, both of Hesquiat; Joe Tom, formerly of Hesquiat and Hot Springs Cove; Mary Hayes of Opitsat and Esowista; Margaret Joseph of Opitsat and Esowista; and Ben Andrews, formerly of Hesquiat and Opitsat. Several others provided information indirectly in the study.



An important source of published information for Bouchard and Kennedy's work came from Philip Drucker's book *The Northern and Central Nootkan Tribes* (1951), which included information from the late Thomas Lucas and Pascal Alexander (Hesquiaht), Chief Atleo (George Shamrock), Fat Sam and Mrs. Keitlah (Ahousaht), and Jack *yaa<sup>k</sup>suu7is* and Jimmy Jim (Clayoquot). Drucker's book, together with his field notes, includes about 100 place names.<sup>21</sup> Although the work is very detailed for coastal regions, the Nuu-Chah-Nulth members of the Scientific Panel point out that many important places inland are not recorded.

The specific objectives of the *Vancouver Island Cultural Resource Inventory* (Kennedy *et al.* 1993) study were even more explicit:

- 1 to provide a rationale and working typology for classifying and recording Native cultural resources;
- 2 to examine the present state of knowledge relating to the identification and evaluation of culturally-significant places throughout Canada and the United States;
- 3 to undertake a review of the published and unpublished materials that provide identification of culturally-significant places within the Vancouver Island study area;
- 4 to make recommendations on data collection methods to be used in standardizing the recording of culturally-significant places; and
- 5 to compile a sample ethnogeographic computer database of culturally-significant places from several different areas of Vancouver Island. (Kennedy *et al.* 1993:1–2)

The identification and characterization of culturally important places should be decided ultimately by the indigenous peoples within whose territory the places occur. This principle of co-management is critical in recognizing traditional knowledge and self-determination for indigenous peoples.

Stressing the significance of various types of cultural sites does not diminish the importance of archaeological sites, legally recognized as a subset of cultural heritage sites. These types of sites are highly significant, and much can be learned from them about past cultural practices. For example, Panel member Stanley Sam (pers. comm., 1994) recalled that his grandmother travelled far back into the mountains, beyond the first line of major ridges, to search for young cedar trees growing in the shade, considered to be the source for the highest quality inner cedar bark. When gathering bark, she was often gone for 10 days at a time. The culturally modified trees—cedar trees with long, often rectangular or triangular scars still evident from where a strip of bark was removed some time

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<sup>21</sup>Other information contained in Bouchard and Kennedy's report was drawn from Webster (1983), Ellis and Swan (1981), Calvert (1980), Fenn *et al.* (1979), Turner and Efrat (1982), and many other sources, as listed in their References section (p. 561). Altogether, 913 places are documented for the Clayoquot Region in the Bouchard and Kennedy report; others have been added since the report was released (S. Sam, pers. comm., 1994).

in the past (Figure 4.4)—provide solid evidence of this type of use. With care, these trees can be dated, and provide information about use patterns for this resource, which then can corroborate oral traditions.

**Figure 4.4**



A culturally modified redcedar tree from which a strip of bark was removed many decades ago.

The Heritage Conservation Branch of the B.C. Ministry of Tourism and Ministry Responsible for Culture has drafted a document entitled *Traditional Use Sites. Typology of Traditional Use Site Category* (1994), which recognizes a broader spectrum of culturally important sites than has previously been the case. The broader categories (and sub-types) include the following:

- *Food Harvesting* (Fishing area, Fishing station, Intertidal collecting, Preparation, Fishing, Hunting area, Hunting station, Vegetation area, Non-vegetation area);
- *Material Harvesting* (Vegetation area, Trapping, Non-vegetation area, Precious material, Preparation, Mining, Aboriginal);
- *Ceremonial/Religious* (First food,<sup>22</sup> Ceremonial preparation, Gathering place, Repository for the dead, Guardian spirit questing, Spiritual cleansing,

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<sup>22</sup>In many indigenous cultures special ceremonies take place each year to honour and celebrate the arrival of the first fish of the season, or the capture of the first game, the ripening of the first berries, or digging of the first roots. This type of ceremony is referred to as “first food.”

Spiritual paraphernalia repository, Witchcraft protection sites, Vegetation area);

- *Medicinal* (Therapeutic features, Vegetation area, Non-vegetation area);
- *Traditional History* (Origin story, Legendary);
- *Cultural Landforms* (Legendary landforms, Named places, Marker sites, Forecasting sites);
- *Transportation* (Land route, Water route);
- *Supernatural Beings* (Supernatural area);
- *Habitation* (Seasonal, Private, Secular activity, Storage);
- *Recreational* (Gathering, Games/competition); and
- *Cross-Cultural Interaction* (First contact, Conflict).

For completeness, the Clayoquot Scientific Panel suggests two additional traditional use site categories:

- *Traditional Land Management*; and
- *Education and Training*.

An example of a traditional land management area would be a place where intentional landscape burning was carried out systematically to enhance deer habitat and berry production, as well as to produce usable firewood. Near Hesquiat Village, for instance, patches of forest land were burned (L. Paul and S. Sam, pers. comm., 1993–94). Similarly, specific places where young people were taken for training and teaching purposes (e.g., a place where a father instructed his son(s) in the histories and chants of their people) could be classed as “Education and Training” sites (R. Haiyupis and S. Sam, pers. comm., Feb. 1994). With these two additions, the Panel recommends the use of the Heritage Conservation Branch typology for identifying culturally important sites.

Where certain Nuu-Chah-Nulth activities, such as gathering herring spawn, are not specifically mentioned in this Heritage Conservation Branch draft report, they can easily be added under appropriate site types (in this case, “Food Harvesting”). Similarly, sacred places are particularly relevant to Nuu-Chah-Nulth culture in relation to forest management, and fall within the “Ceremonial/Religious” site category.

### 4.3 Current Use of Traditional Lands for Cultural and Subsistence Purposes

The diverse and intensive use of the lands, waters, and resources of Clayoquot Sound by the Nuu-Chah-Nulth people obviously continues. The fish, forests, and other resources of the region are as critical to the survival and well-being of the Nuu-Chah-Nulth as they ever were. Many traditional sustenance uses (catalogued in Appendices V and VI, published under separate cover) continue today, supplemented by more recent commercial uses that contribute to the economy of Nuu-Chah-Nulth communities. With increased emphasis on the cultural importance of maintaining traditional practices, augmented by possibilities for expanding non-timber resource uses, Nuu-Chah-Nulth uses of Clayoquot lands, waters, and resources can be expected to increase in the future.

Table 2 provides examples of current Nuu-Chah-Nulth uses of resources and sites in Clayoquot Sound.<sup>23</sup> Further details of use and scientific names of plant and animal species mentioned in Table 2 are found in Appendix V, published under separate cover.

Despite the importance of these resources, current and ongoing use of lands and resources by First Nations is generally not widely recognized as important. Historical use, as discussed under Cultural Heritage Sites (Section 4.2.1), is often more widely recognized. Although the rights of First Nations to continue their traditional cultural practices—including fishing, hunting, and plant gathering—are enshrined in the *Constitution of Canada Act* (1982), these rights are seldom mentioned or referred to in forest practices documents. (See discussion under Section 5.3, British Columbia Forest Practices Code, for an important exception.) Internationally, however, current use by indigenous peoples of forest areas is gaining recognition.<sup>24</sup> Some resource reserves have been set aside for indigenous peoples' use (e.g., Fearnside 1989; Balick *et al.* 1994).

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<sup>23</sup>Table 2 was developed in consultation with Nuu-Chah-Nulth elders on the Clayoquot Scientific Panel.

<sup>24</sup>For instance, *Agenda 21*, Section III, Chapter 26:227–229 discusses “Recognizing and strengthening the role of indigenous people and their communities.”

**Table 2**                      **Current Nuu-Chah-Nulth uses of resources and sites in Clayoquot Sound**

<b>Hunting</b>	Deer (very important); elk; bear; sea lion; seal (harbour, and occasionally, with permit, fur seal); geese (Canada, brant); ducks ("butterball" or bufflehead, canvasback, Goldeneye, pintail, scoters); swan (tundra)
<b>Fishing</b>	Five salmon species (very important) and their eggs; trout; steelhead; many kinds of marine fish such as cod, flounder, halibut, herring (and herring roe), lingcod, perch, pitchhead, red snapper, tommie cod
<b>Food Gathering</b>	
Shellfish and other marine foods	Barnacles (giant and gooseneck); chitons (several types); clams (butter, cockle, horse, littleneck, razor); crabs; mussels (California and edible); octopus; oysters; sea cucumber; seagull eggs; sea urchins (red, purple, green); abalone
Berries	Blackcaps; wild blueberries (three kinds); bunchberries; wild currants; wild gooseberries; huckleberries (evergreen, red); salal berries; salmonberries; wild strawberries; thimbleberries; bog cranberries; highbush-cranberries; Pacific crabapples
Other foods	Labrador tea ("Hesquiaht tea"); cow-parsnip shoots; thimbleberry and salmonberry shoots; stinging nettle greens; wild clover rhizomes; Pacific silverweed roots; red laver and other seaweeds; herring eggs (very important, on eelgrass, kelps, and western hemlock boughs)
<b>Plant Materials</b>	
Specialty woods	Western redcedar for canoes, boxes, and other woodworking art, and for shakes and construction; yew wood for special items; yellow-cedar, alder, crabapple, and other woods for carving
Fuels	Alder for woodstoves and smoking fish; western redcedar for kindling; Douglas-fir and other woods for general fuel
Fibrous materials for basketry and other uses	Inner bark of western redcedar and yellow-cedar for ceremonial dance regalia, baskets, and mats; western redcedar withes for baskets; tall basket sedge and American bulrush for wrapped, twined baskets; cattail and tule for mats
Food products for export from the region	Wild mushrooms (including chanterelles and pine mushrooms); seaweeds (kelps and laver)
Seaweeds	Garden fertilizer and commercial sale (see previous entry)
Decorative materials for florist and other uses	Salal; evergreen huckleberry; sword fern; cones and other forest materials for commercial sale
Medicines	Cascara; red alder; skunk cabbage; wild lily-of-the-valley; yarrow; stinging nettle; Devil's club; yellow pond lily; licorice fern; pitch of spruce, amabilis fir, lodgepole pine; cottonwood bud resin; lichens; and many others
<b>Traditional Use</b>	
Use of sacred places	Caves, pools, waterfalls, small tidal pools, and other areas are used currently for spiritual purposes by Nuu-Chah-Nulth; (see Table 1)
Educational	Nuu-Chah-Nulth children and youth receive traditional education and training in the forests and other areas of Clayoquot Sound
<b>Non-Traditional Use</b>	
Employment in forestry, habitat restoration	Nuu-Chah-Nulth participate to some extent in forestry and will participate increasingly in habitat restoration and fisheries enhancement activities
Tourism	Nuu-Chah-Nulth participate in guiding activities for visitors to the region, including naturalists, photographers, hikers, canoeists, and kayakers; these activities are expected to continue

An example of current use recognition outside of Canada is found in *Forest Ecosystem Management: an Ecological, Economic, and Social Assessment* (Forest Ecosystem Management Assessment Team 1993). The report states:

Indian tribes and groups are governments and communities that are affected by natural resource policy...Treaty rights have been interpreted to have precedence over subsequent resource uses and must be accommodated by agencies...Access to and use of certain plants (e.g., sedges, cedar), animals (e.g., deer, eagles), and locations (e.g., fishing locations) are vital to the cultural survival of a number of Indian tribes and communities. Plants provide food, medicines, and materials for utilitarian and ceremonial items. Certain plants are essential for items that play key roles in renewal of the earth, becoming an adult in society, and are ultimately critical for "being Indian."

The implementation of standards and guidelines—the specific rules that govern management within different management areas in the forests—have the potential to either constrain or facilitate many of the practices and activities undertaken by Native Americans. For example, standards and guidelines that prohibit or discourage the collection of certain plant materials could affect tribal rights and cultural subsistence practices. Habitat protection measures, such as controls on use of fire, could also have substantial effects if these controls occur within traditional gathering areas (e.g., for grasses) that need to be burned. (Forest Ecosystem Management Assessment Team 1993:II-73-74)

These circumstances are equally true for First Nations in British Columbia. It is important to recognize the full extent of culturally important areas and traditional practices within a traditional homeland, whether they be past or present, with or without physical manifestations, and to allow for their protection by the First Nations for whom they are significant.

#### **4.4 Future Use of Traditional Lands for Cultural and Economic Purposes**

Subsistence means livelihood, or the source of food and other items necessary to exist. In defining culturally important areas, those resources and sites required by the Nuu-Chah-Nulth now and in the foreseeable future should be recognized. To live in Clayoquot Sound and retain their cultural identity, the Nuu-Chah-Nulth people need both access to their lands for traditional practices and relationships, and an economic base and local employment. Thus, culturally important areas should not be limited to those areas relating solely to past and traditional practices, or to mere survival.

In 1991, the Nuu-Chah-Nulth of Clayoquot Sound comprised 43% of the region's population.<sup>25</sup> The Nuu-Chah-Nulth population is younger and has a higher birth

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<sup>25</sup>This figure includes Nuu-Chah-Nulth people who are living off-reserve, about 50% of the Nuu-Chah-Nulth of Clayoquot Sound.

rate than the overall population of the Alberni-Clayoquot Regional District. Their economies also differ. Whereas forestry accounts for most of the employment in the regional district as a whole, fishing is the leading employer of the Nuu-Chah-Nulth, providing 73% of present employment. At one time fishing was an even greater source of employment. Tourism ranks second at about 21%, while forestry, aquaculture, and mining collectively account for about 3% of Nuu-Chah-Nulth employment in this area. The Nuu-Chah-Nulth unemployment rate is currently 60–70% of the population.<sup>26</sup>

In addition to cultural and spiritual interests, the Nuu-Chah-Nulth have economic interests in sustaining and developing the resources of their traditional territories to improve their situation. Their close links to the land and traditional knowledge of plants provide a strong base for harvesting “special forest products” such as wild edible mushrooms, floral greenery, medicinal plant products, fruits, berries, herbs, edible plants, and landscaping and craft products.

In its 1993 report *Forest Ecosystem Management: an Ecological, Economic, and Social Assessment*, the Forest Ecosystem Management Assessment Team, considering the American Pacific Northwest, supports the need to recognize “special forest products”:

A large and expanding range of products are gathered for both commercial and personal use from the region's forests. Products include mushrooms, firewood, and floral materials such as salal and ferns. Several participants at the Forest Conference also addressed this issue, arguing that in some cases the monetary value of these alternative products exceeded that associated with timber harvesting...Information on which to judge effects of the options on special forest products is largely absent. (Forest Ecosystem Management Assessment Team 1993:II-77)

Although the Nuu-Chah-Nulth of Clayoquot Sound intend to maintain their cultural and subsistence uses and to participate in use of special forest products, they also wish to participate more fully in mainstream economic activities such as timber harvesting and fisheries. They want to be involved in resource planning, stewardship, and development, and to reap the economic and social benefits of being a full partner in sustainably using their traditional territories.

To do so will require major effort, both to surmount current licence agreements and attitudes, and to develop within the Nuu-Chah-Nulth community the knowledge, skills, and infrastructure required for such activities. Models and training programs for indigenous people, though scant, are being developed. The B.C. Ministry of Forests pamphlet (1992b), *Opportunities for First Nations Peoples in Silviculture*, and the *National Aboriginal Forest Practices Code* (Merkel *et al.* 1994) both recognize the potential for forestry activities to meet First Nations' needs for economic sustainability. The University of British Columbia recently announced a newly created position: coordinator for First Nations forestry and conservation

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<sup>26</sup>This information was adapted from information in the *Clayoquot Sound Sustainable Development Strategy* (Clayoquot Sound Sustainable Development Strategy Steering Committee 1992).

programs (UBC 1994). This commitment reflects a growing recognition of the importance of supporting and assisting First Nations people in entering natural resource management and forestry science fields. The Pacific Northwest Research Station of the U.S. Department of Agriculture Forest Service, as of fall 1994, is compiling an *Annotated Bibliography of Literature Useful for Management of Non-Timber Forest Products in the Pacific Northwest*. Additional educational materials and training programs identified by the Nuu-Chah-Nulth and for the Nuu-Chah-Nulth will be needed if future use of their traditional territories is to go beyond subsistence use of these lands.

While the Nuu-Chah-Nulth have a vested interest in an improved local economy, they also recognize that their future is tied to the health of the ecosystems on which they depend. They believe that the long-term well-being of the land is more important than any economic commodity and support a strategy that protects the land base and restricts its exploitation to sustainable levels.



## 5.0 Review of Forest Practices Standards for Recognition of First Nations' Perspectives

This chapter reviews existing forest practices standards for Clayoquot Sound to assess their adequacy in both providing for and protecting First Nations' perspectives and interests.

In general, the documents reviewed reflect the long history of misunderstanding between indigenous and non-indigenous peoples. Legitimate claims of indigenous populations to their traditional territories and resources within them have been, until recently, largely ignored. This long-standing social, political, and economic exclusion has resulted in Nuu-Chah-Nulth people being omitted from meaningful participation in managing resources within their traditional territories in Clayoquot Sound.

Problems created over centuries cannot be solved overnight. To reverse the large-scale social, political, and economic trends that have persisted over many generations will require great effort and time. The pivotal event marking a reversal of trends begun during the colonial period is the enshrinement of aboriginal rights in the *Constitution of Canada Act* in 1982. Since that time, a number of land claims cases have been settled and many more are on the verge of settlement. One of these imminent cases is the Nuu-Chah-Nulth claim.

The British Columbia government recognized that the *Clayoquot Sound Land Use Decision* of 1993 must, "to the extent possible, not prejudice and be subject to the outcome of comprehensive treaty negotiations" (British Columbia 1993a:4). Although the government cannot anticipate the outcome of these treaty negotiations it is committed to working with the Nuu-Chah-Nulth for mutually acceptable solutions. The Nuu-Chah-Nulth face similar uncertainty with respect to treatment of current use sites within treaty negotiations. Many traditional use sites can be found in protected areas, parks, and tree farm licences (TFLs), which has created confusion about rights of the Nuu-Chah-Nulth to use their traditional lands.

Regardless of the land claim process, existing forest practices standards affect the Nuu-Chah-Nulth. Many standards and related documents reviewed by the Panel (Appendix III) contain important references to First Nations. Four documents in particular have helped to shape the Panel's recommendations for new forest practices standards that recognize First Nations' knowledge and interests:

- *Interim Measures Agreement* (between British Columbia and the HwiiH of the Tla-o-qui-aht First Nations, the Ahousaht First Nation, the Hesquiaht First Nation, the Toquaht First Nation, and the Ucluelet First Nation, 1994);
- *Clayoquot Sound Sustainable Development Strategy* (Clayoquot Sound Sustainable Development Strategy Steering Committee 1992);
- *British Columbia Forest Practices Code Standards with Revised Rules and Field Guide References* (B.C. Ministry of Forests and B.C. Ministry of Environment, Lands and Parks 1994); and

- *National Aboriginal Forest Practices Code* (Merkel *et al.* 1994).

Another document which refers to First Nations' interests is the *Vancouver Island Land Use Plan* (Commission on Resources and Environment 1994). However, because the plan specifically excludes Clayoquot Sound, it is not included in this review.

## 5.1 Interim Measures Agreement

Independent from, but concurrent with the work of the Scientific Panel, the provincial government and Nuu-Chah-Nulth leaders negotiated an agreement regarding Nuu-Chah-Nulth participation in decision-making and economic activities in Clayoquot Sound. The *Interim Measures Agreement*, ratified March 19, 1994, establishes protocols and processes for Nuu-Chah-Nulth participation and decision-making in land and resource planning and use in all of Clayoquot Sound.

This agreement establishes a Central Region Board, composed of First Nations and other representatives, whose objectives in implementing the agreement include:

- promoting sustainability, economic development, and diversification for communities within Clayoquot Sound;
- reducing massive unemployment levels within aboriginal communities of the region to a level comparable to unemployment in non-aboriginal communities;
- preserving representative ecological zones in Clayoquot Sound;
- restoring and enhancing fish and wildlife habitats and stocks in damaged streams and forests;
- assessing compliance with world-class forestry standards and incorporating the perspectives of First Nations;<sup>27</sup>
- providing a sustainable forest industry in Clayoquot Sound;
- maintaining ecological integrity and visual attractiveness in any areas proposed for resource extraction or development;
- preserving options for treaty settlement, especially for the Clayoquot River Valley, Hesquiat Point Creek, and Meares Island, and for expanding the land and resource base of First Nations;
- respecting and protecting aboriginal uses of resources;

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<sup>27</sup>Note that two highly significant and somewhat distinct issues are mentioned here. Recent international agreements address both forest standards *and* the incorporation of indigenous peoples' values into these standards. First Nations' perspectives, however, extend beyond specific standards.

- increasing local ownership within the forest industry;
- reconciling concerns about the region among various groups, including environmentalists, labour, industry, First Nations, recreationists, and government;
- encouraging respect for aboriginal heritage, including the protection of burial sites and physical artifacts of previous generations;
- conserving resources; and
- developing procedures for continuing dialogue about forest use with communities in the region.

Promoting economic development among the Nuu-Chah-Nulth people is a first step towards co-managing resources in Clayoquot Sound. In addition to mainstream forestry activities, the *Interim Measures Agreement*, through clauses on the necessity for a forest audit of plant and animal species in Clayoquot Sound (clause 7(f)(vi); p. 8) and the consideration of the value-added component of the forest industry (clause 13(p); p. 14), recognizes the potential for new sources of employment for the Nuu-Chah-Nulth. Non-timber forest products, such as edible mushrooms and decorative materials, also have economic value.<sup>28</sup>

The *Interim Measures Agreement* notes several areas for which options for treaty settlement should be preserved. Other critically important areas include the Pretty Girl/Megin area, Ursus Valley, and Catface Mountain. Although these areas are not specifically identified in the *Interim Measures Agreement*, elders on the Scientific Panel, and others, believe these to be particularly significant and equivalent with places specified by the *Interim Measures Agreement*. Any future opportunities for forest use in these areas, including TFLs, should be mutually determined with the Nuu-Chah-Nulth nations.

In its provisions, the *Interim Measures Agreement* acknowledges the ongoing work of the Scientific Panel and incorporates procedures for assessing the Panel's findings and applying findings deemed appropriate by the Central Region Board.

## 5.2 Clayoquot Sound Sustainable Development Strategy

Following the disbanding of the Clayoquot Sound Development Task Force in the fall of 1990, a steering committee was struck to develop a sustainable development strategy for Clayoquot Sound. Representatives included the Nuu-Chah-Nulth Tribal Council, other communities, interest groups, and

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<sup>28</sup>The potential value of such products in British Columbia is considerable. The total value of non-timber forest products currently is known to be several millions of dollars annually, with thousands of people being employed in harvesting and processing these products. In 1993, for example, pine mushroom (*Tricholoma magnivelare*) exports from British Columbia to Japan were valued at \$4 million. In 1994, 1.5 million pounds of fresh pine mushrooms were exported (Melanie Milum, B.C. Ministry of Forests, pers. comm., Dec. 1994). See also de Geus (1994).

provincial and federal governments. The committee's report, the *Clayoquot Sound Sustainable Development Strategy* (Clayoquot Sound Sustainable Development Strategy Steering Committee 1992), contains positive features from a Nuu-Chah-Nulth perspective. The intent, as expressed in the Principles, is good, but insufficient. For example, Goal Target 6.1 "Respect Nuu-Chah-Nulth claim to traditional resources" is positive, but does not recognize traditional knowledge as an important input to decision-making. A background report to the strategy by Wilson *et al.* (1991) recognizes the importance of cultural heritage sites and discusses these in detail for the Clayoquot area.

The *Clayoquot Sound Sustainable Development Strategy* marks an important change in direction but falls short in several significant respects:

- it proposes no mechanism for establishing a common philosophy or protocol encompassing two different cultures;<sup>29</sup>
- there is no agreement on forest protection versus industrial development;
- there is no recognition of traditional ecological knowledge in decision-making;
- there is insufficient recognition of the interconnectedness of land and water and how this enters Nuu-Chah-Nulth perspectives on resource use;
- there is insufficient recognition of the sacredness of land or the spirituality of the Nuu-Chah-Nulth; and
- actions focus around the economy, discussion focuses on logging companies, and more weight is given to logging than to fish or other resource uses and culturally important areas.

Several issues addressed by the committee remain unresolved, and this document illustrates the necessity for a workable protocol when dealing with highly polarized issues. Consequently, the Scientific Panel was encouraged to develop a protocol which is based upon a First Nations' perspective of respect for all life forms. The Statements of Nuu-Chah-Nulth interests (from the Tribal Council), listed on page 12 of the *Clayoquot Sound Sustainable Development Strategy*, are particularly relevant to the Panel's work. The *Interim Measures Agreement*, which supersedes the committee's work, contains a more detailed statement of Nuu-Chah-Nulth positions (see Section 5.1).

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<sup>29</sup>In its first report the Panel recognized the importance of effective protocol and described a successful approach (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994a).

### 5.3 British Columbia Forest Practices Code

The *British Columbia Forest Practices Code Standards with Revised Rules and Field Guide References* (B.C. Ministry of Forests and B.C. Ministry of Environment, Lands and Parks 1994) includes many proposed standards that incorporate First Nations' interests and concerns.

- Section 3.7, "First Nations" (p. 31), states:

Aboriginal rights exist in law and are recognized and affirmed under the *Constitution of Canada Act* (1982). As such, they cannot be unjustifiably infringed upon by activities of the Crown or activities authorized by the Crown (for example, through the issuance of tenures, leases, licences and permits). It should be possible, through consultation and negotiation with aboriginal peoples directly affected by an activity, to reach mutually agreeable solutions when that activity impacts on an aboriginal right. Implementation of the Forest Practices Code will embody this approach.

Guiding principles in this section (p. 32) state:

- The nature and extent of aboriginal rights should be determined by consultation and negotiation with those aboriginal peoples directly affected.
- Aboriginal rights should be recognized and considered at every level of planning, but practical solutions with benefits for all parties are most likely to be found at the operational planning stages.

A standard in this section is:

- 1 Before authorizing resource use activities, resource managers must accommodate constitutionally protected aboriginal rights through discussion and negotiation.
- Section 3.8, "Cultural heritage resources," includes the following standard:
    - 1 Proponents whose proposals could impact cultural heritage resources, as identified in a cultural heritage overview assessment, must conduct a cultural heritage impact assessment. If the impact assessment determines that the cultural heritage resources may be at risk, the proponent must then develop an impact management strategy...[These]...must be referred to appropriate resource agencies for approval.

Two major support documents in preparation are noted: guidelines for managing and protecting cultural heritage resources, and a protocol agreement for the management of cultural heritage resources in provincial forests.

- Section 2, “General requirements” (p. 8), includes the following standard:
  - 6 Where heritage or significant recreation features and other previously unidentified resource values are discovered during forest practices operations, such operations must stop or be modified immediately, to ensure that those features or values are not damaged.
- Section 3.1, “Principles of planning” (p. 10), alludes to the need for forest planning to identify and consider social needs and social values, among other values.

The Forest Practices Code recognizes First Nations' interests in the context of forest management, but does not specify procedures for complying with the proposed rule respecting recognition of aboriginal rights; nor does it incorporate or integrate First Nations in decision-making in a meaningful way.

Specifically, the Panel has concerns about the assumption in Section 3.7 that “mutually agreeable solutions” will be easily obtained through “consultation and negotiation.” The process of resolving conflicts when such agreements are not obtained remains undefined. Also of concern is the statement: “Aboriginal rights should be recognized...but practical solutions...are most likely to be found at operational planning stages.” The first part of this statement is strongly endorsed by the Panel, but the second part may limit First Nations' involvement in the broad-scale planning phases of forest practices. This statement would certainly contradict the recommendations of the Panel regarding Nuu-Chah-Nulth participation in all aspects of forestry activities. Furthermore, it is important to recognize that aboriginal rights have always been contained in Nuu-Chah-Nulth traditional law, consistent with *hahwulhi*. Somehow, agreements must acknowledge the concepts contained within *hahwulhi*.

Other issues important to First Nations not adequately addressed in the Forest Practices Code include: protection of fisheries, marine foreshore, offshore, estuaries, wildlife, and culturally important areas; use of non-timber forest products; use of herbicides and pesticides; and economic sustainability.

## 5.4 National Aboriginal Forest Practices Code

The *National Aboriginal Forest Practices Code* (NAFPC) (Merkel *et al.* 1994), still in draft form, includes a wide spectrum of concepts and prescriptions pertaining to First Nations' forest activities. Many of these are relevant in developing cultural standards for ecosystem management in Clayoquot Sound. The intent of the *National Aboriginal Forest Practices Code* is to provide guidelines to assist First Nations in practising wise forest management.

The NAFPC addresses and discusses topics in several important areas including: administration (chapter 2), community participation (chapter 3), planning (chapter 4), inventories (chapter 5), and non-timber forest values (chapters 8–12). Valuable references are provided for each of these areas.

This document serves as a general guide for aboriginal forest practices and is, of course, not specific for the Clayoquot environment nor to Nuu-Chah-Nulth culture.

## 5.5 Other Documents Reviewed

Appendix III lists other documents reviewed for their consideration and inclusion of First Nations' knowledge and interests. The following documents, a subset of those reviewed, are noted in the table as being highly relevant to First Nations' interests.

- *British Columbia Archaeological Impact Assessment Guidelines* (B.C. Ministry of Tourism and Ministry Responsible for Culture 1992)

This document applies principally to development projects which are subject to British Columbia's environmental impact assessment and review process. Also, the *Heritage Conservation Act* provides enabling legislation for protecting and conserving British Columbia's archaeological resources on both public and private lands. These resources include: heritage sites/heritage objects; burial places/skeletal remains; paintings or rock carvings; middens; shell heaps; house pits; caves or other habitation sites; cairns, and fortifications. Under this legislation archaeological sites may not be destroyed, excavated, or altered without a permit issued by the minister or designate.

The *Heritage Conservation Act* provides legal protection for all archaeological sites. Before any development projects (including roadbuilding and logging) can be undertaken, the archaeological sites of the area in question must be assessed and the impact of proposed development reviewed. The assessment procedure is not specified. Other items not specified under the act include:

- the types of sites designated as archaeological sites: culturally important sites are not limited to archaeological sites;
- if and how findings of the assessment procedure might modify subsequent forest activities;
- whether tree farm licence holders are required to undertake archaeological surveys or whether they rely on existing data;
- provisions for consultation with aboriginal peoples most closely associated with archaeological sites.

As noted previously (Section 4.2.1) archaeological sites do not incorporate all culturally important areas, and therefore these documents, even when thoroughly applied, do not protect the full range of cultural sites.

- *Coast Planning Guidelines Vancouver Forest Region* (B.C. Ministry of Forests 1992a, 1993a)

*Coast Planning Guidelines* is an “umbrella” document for Integrated Resource Management (IRM) initiatives. An October 8, 1993, letter from K.J. Ingram, Regional Manager, Vancouver Forest Region, to all licensees of the region about *Coast Planning Guidelines* contains notations on changes since the March 1992 version of the guidelines. The letter notes that IRM includes “accommodation of other non-timber resource values such as but not limited to recreation and heritage sites.” The letter also notes that “IRM shall be incorporated into all forest planning levels. The objective of IRM planning is to integrate the uses of all resources in a way that aims to optimize social, economic and environmental benefits to society. IRM planning should incorporate [among 14 specified objectives]...*identification of recreation and aesthetic resources including cultural and heritage values...*[emphasis ours].”

The language of the *Coast Planning Guidelines Vancouver Forest Region* is ambiguous; only some statements are enforceable. For example, “cultural and heritage values “ require definition for them to have meaning in forest practices.

- *Clayoquot Sound Forest Practices Standards. Standards for the Development and Harvesting of Timber in the General Integrated Management Areas of Clayoquot Sound* (B.C. Ministry of Forests 1993b)

Under “Total Resource Plans” (p. 2), the document notes that total resource planning “identifies all resource uses and values in combination with those of timber harvesting and incorporates them in an overall plan.” Presumably, Nuu-Chah-Nulth interests and values, though not specified, would be represented in this process.

The only direct reference to Nuu-Chah-Nulth in this document appears under “Role of the Aboriginal People” (p. 3), which notes discussions in process with the Nuu-Chah-Nulth Tribal Council to determine the degree and level of their involvement as a referral agency which would provide comment and input on forest development plans. While important in its implications, this statement contains no reference to specific Nuu-Chah-Nulth interests, such as recognition of traditional ecological knowledge, cultural sites, or impacts of forest practices on traditional resources.

This document requires compliance with procedures contained in other guidelines, such as *Pre-Harvest Silvicultural Prescription Procedures and Guidelines for Vancouver Forest Region* (1991), *British Columbia Coastal Fisheries/Forestry Guidelines* (1993), and *Guidelines to Maintain Biodiversity in TFL 44 and 46* (1991). However, these guidelines, like the *Clayoquot Sound Forest Practices Standards* (1993), contain little or no explicit consideration of Nuu-Chah-Nulth and other First Nations’ interests.



- *Tofino Creek Integrated Resource Management Strategy* (B.C. Ministry of Forests and B.C. Ministry of Environment, Lands and Parks 1991)

Nuu-Chah-Nulth use of the Tofino Creek area, specifically the Onadsilth Reserve at the mouth of Tofino Creek, is discussed under “Heritage value” (pp. 34–36), which draws entirely on information from Bouchard and Kennedy (1990). The objective noted in this section is “recognition and protection of heritage values” (p. 34). Although the reserve area has been harvested twice since the late 1960s, the *Tofino Creek Integrated Resource Management Strategy* recommends (p. 36) that “an effort should be made to further confirm the existence or non-existence of heritage sites of significance in Tofino Creek (individual isolated findings are not considered sites).”<sup>30</sup> The strategy does not recognize the necessity to consult with Nuu-Chah-Nulth people or to consider Nuu-Chah-Nulth interests in the rest of the Tofino Creek watershed. Such recognition would have been appropriate in sections of the strategy discussing resource values and opportunities, wildlife habitat and other ecological values, timber resource value, fisheries value, recreation value, maintenance of landscape integrity, and employment and economic opportunities.

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<sup>30</sup>Presumably, isolated culturally modified trees are not considered.



## 6.0 Recommendations for Including First Nations' Perspectives

First Nations' perspectives are inconsistently and incompletely addressed in existing forestry documents and standards pertaining to forest management in Clayoquot Sound. New standards and procedures are required to adequately represent First Nations' interests and involve indigenous people in forest management and associated activities within their traditional territories.

Specifically, new approaches to sustainable ecosystem management must be implemented that:

- recognize more clearly the close interrelationships that exist among the forests, waters, and marine ecosystems in Clayoquot Sound;
- recognize the importance of Nuu-Chah-Nulth perspectives and traditional knowledge;
- include Nuu-Chah-Nulth people and perspectives in decision-making;
- provide educational opportunities for non-Nuu-Chah-Nulth forestry workers to learn about and gain an understanding of Nuu-Chah-Nulth history, traditional knowledge, and perspectives; and
- provide training and employment opportunities for Nuu-Chah-Nulth people in forestry activities.

### 6.1 Context for Recognizing First Nations' Interests

The guiding principles, goals, objectives, and recommendations developed and presented in the Panel's previous reports provide a framework for the development of standards (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994a, 1994b). Relevant aspects of these founding statements are summarized here to provide the context for specific standards recognizing Nuu-Chah-Nulth interests.

#### 6.1.1 Guiding Principles

The Panel's guiding principles provide the framework for reviewing existing forest practices standards and for developing new standards for forest management in Clayoquot Sound. While all the guiding principles are relevant to Nuu-Chah-Nulth participation in all aspects of forest practices in Clayoquot Sound, specific principles (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994a:9) emphasize the need to:

- 9 Provide for sustainable activities such as logging, fishing, tourism, and cultural pursuits.

- 10 Accommodate the needs of First Nations for cultural, social, and economic well-being.
- 11 Protect cultural and spiritual values and other special sites.
- 14 Involve local people and affected parties in planning and management processes.

These are examples of underlying concepts that affect directly the inclusion of First Nations' knowledge and interests in forest practices.

### **6.1.2 Goals**

Specifically relevant goals (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994b:41) include:

- To recognize and support the long-standing aspirations and needs of the Nuu-Chah-Nulth people which are based on traditional occupation and use of the land and waters.
- To recognize, support, and incorporate Nuu-Chah-Nulth traditional ecological knowledge and values into land use planning and decision-making.
- To recognize and support the intent of the *Interim Measures Agreement* to engage Nuu-Chah-Nulth participation in Clayoquot Sound land and resource use, including aquatic and marine systems.

### **6.1.3 Objectives**

Specifically relevant objectives (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994b:42) include:

- To recognize and respect the fundamental spiritual heritage of the Nuu-Chah-Nulth.
- To accommodate First Nations' traditional ownership of land and resources in Clayoquot Sound in land use decision-making and activities.
- To involve the Nuu-Chah-Nulth in planning and managing resource use activities in Clayoquot Sound.
- To consult and negotiate with Nuu-Chah-Nulth about economic benefits before developing further economic activity in Clayoquot Sound.
- To ensure that forest practices do not negatively impact Nuu-Chah-Nulth foreshore and offshore resource use.
- To ensure that cultural sites defined by the Nuu-Chah-Nulth are inventoried, mapped, effectively protected, and restored where damaged.

#### 6.1.4 Recommendations about Inclusion of First Nations

In its second report, the Panel made the following recommendations to incorporate First Nations' perspectives into standards and practices for Clayoquot Sound (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1994b:55):

- 1 Include First Nations representatives at the onset of planning processes for Clayoquot Sound.
- 2 Respect traditional values, spirituality, and *hahuulhi*, and provide for the traditional resource use and subsistence needs of the Nuu-Chah-Nulth in forest planning and management.
- 3 Incorporate First Nations' forest management practices, which are founded in traditional values and ecological knowledge, and which arise as a result of treaty negotiations, in forest inventory, planning, and management.
- 4 Conduct comprehensive consultation with the Nuu-Chah-Nulth about land use practices as specified in the *Interim Measures Agreement*.
- 5 Define cultural sites more comprehensively according to First Nations' understanding (e.g., including a variety of sacred sites, berry-picking sites, medicine-gathering sites). Use Nuu-Chah-Nulth guidance to undertake research, inventory, and identification of culturally relevant places and resources.
- 6 Recognize the importance and potential of concepts of tribal parks and sacred site reserves in land use planning.
- 7 Restore traditional sites that have been altered or degraded by logging practices...in consultation with the Nuu-Chah-Nulth.
- 8 Provide for training, education, and meaningful employment of Nuu-Chah-Nulth people in both research and forestry activities to ensure that they benefit from commercial use of resources in Clayoquot Sound.
- 9 Give precedence to traditional Nuu-Chah-Nulth needs for sustenance (the definition of which should be agreed upon by governments and First Nations) over sport fishery, commercial, or other interests outside Clayoquot Sound. Provide for the well-being of wild fisheries before the needs of fish farming.<sup>31</sup>
- 10 Develop standards that recognize, respect, implement, and enforce the maintenance of cultural and biological diversity recognized in *Agenda 21* and *Guiding Principles on Forests*,<sup>32</sup> in forest management practices.

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<sup>31</sup>In addition, the needs of wild fish stocks should be placed ahead of those of hatchery fish. Wild fish runs are exterminated because managers permit much higher fishing mortality on stocks that are supported by hatcheries than the wild runs can withstand.

<sup>32</sup>See United Nations (1992).

- 11 Recognize and take steps to minimize the impact of forest practices on marine ecosystems.

## **6.2 Recommended Framework for Change**

To incorporate First Nations' perspectives and interests in sustainable ecosystem management within Clayoquot Sound, in a manner consistent with Panel principles and international agreements, the Clayoquot Scientific Panel recommends the following actions. Embodied in the appropriate legal framework, these topics and activities would become appropriate standards to recognize and safeguard Nuu-Chah-Nulth perspectives. They incorporate, through various means: inclusion of First Nations in forestry activities; recognition and application of traditional ecological knowledge; and recognition and protection of Nuu-Chah-Nulth cultural areas and resources.

### **International Convention<sup>33</sup>**

- R1<sup>34</sup>All forest activities in Clayoquot Sound must meet either the following standards, or international standards (e.g., United Nations 1992) regarding indigenous peoples' relationships with the forest, whichever is more rigorous.

### **Co-Management**

- R2 Co-management of the Clayoquot Sound ecosystem must be based on equal partnership between the Nuu-Chah-Nulth and the Province of British Columbia.
- R3 The first step in developing an ecosystem-based co-management strategy for Clayoquot Sound must be to establish a working protocol based on mutual respect. This protocol must be developed and agreed to by all participating agencies and individuals, and must be followed throughout planning and decision-making processes.

### **Consultation and Planning**

- R4 All decision-making processes relating to ecosystem use and management in the Clayoquot Sound Decision Area must be undertaken in full consultation with the Nuu-Chah-Nulth of Clayoquot Sound.

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<sup>33</sup>Recognition of indigenous peoples' rights to use and have control of their traditional lands and resources.

<sup>34</sup>Prefix R refers to recommendation.

- R5 All planning processes for forest and ecosystem use in the Clayoquot Sound Decision Area must be undertaken with full consultation and shared decision-making with the Nuu-Chah-Nulth of Clayoquot Sound.

#### Recognition of Traditional Ecological Knowledge (TEK)

- R6 Standards for forest practices must incorporate traditional ecological knowledge. Conflicts between scientific knowledge and traditional ecological knowledge must be resolved in consultation with the Nuu-Chah-Nulth of Clayoquot Sound. Inventory, monitoring, and research must also recognize and include TEK.

#### Hahuulhi: Traditional System for Ecosystem Management

- R7 In consultation with the co-chairs of the Nuu-Chah-Nulth Tribal Council, hahuulhi, the traditional system for ecosystem management, must be recognized in ecosystem co-management processes of Clayoquot Sound. Hahuulhi will be used in determining ecosystem management within traditional boundary lines.

#### Foreshore and Offshore Resources

- R8 Impacts of planned forestry practices on foreshore and offshore resources of Clayoquot Sound must be assessed in consultation with the Nuu-Chah-Nulth of Clayoquot Sound. Where there is a risk of damage to these resources, alternative low risk practices must be employed.
- R9 In cases where foreshore and/or offshore resources have already been damaged or are damaged accidentally, immediate steps must be taken to mitigate or reverse the damage and to restore resource capabilities to their former condition.

#### Nuu-Chah-Nulth Cultural Areas, Including Sacred Areas, Historic Areas, Current Use Areas, and Future Use Areas<sup>35</sup>

- R10 Before the completion of any ecosystem planning process in Clayoquot Sound, the Nuu-Chah-Nulth of the area within which the planning is undertaken must be given the opportunity to identify, locate, and evaluate culturally important sites and areas.

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<sup>35</sup>It is anticipated that the Nuu-Chah-Nulth will participate fully in the harvest and use of major forest products and will develop opportunities for harvesting minor forest products.

- R11 The Heritage Conservation Branch typology (Section 4.2.2) for classification of culturally important sites (“traditional use sites”) should be used with the categories of “Traditional Land Management Sites” and “Education and Training Sites” to be added to the categories delineated in this typology.
- R12 The determination of culturally important areas will include sites whose significance and existence are communicated by oral traditions as well as those established by physical and written evidence.
- R13 Culturally important areas identified as significant by Nuu-Chah-Nulth must be protected using methods appropriate to the area and to the use.<sup>36</sup>

#### Nuu-Chah-Nulth Tribal Parks

- R14 Tribal Parks, owned and managed by the Nuu-Chah-Nulth for public purposes, must come under the authority and jurisdiction of the Nuu-Chah-Nulth. The character of Tribal Parks is not yet firmly specified; Nuu-Chah-Nulth must participate in developing concepts concerning Tribal Parks.

#### Inventory and Mapping

- R15 Planning inventories undertaken in Clayoquot Sound for ecosystem management must be done in full consultation with and full participation of the Nuu-Chah-Nulth of Clayoquot Sound. Nuu-Chah-Nulth cultural resources and culturally important areas must be incorporated in planning inventories before completion of the planning process.<sup>37</sup>
- R16 Mapping projects undertaken in Clayoquot Sound for ecosystem management must be done in full consultation with the Nuu-Chah-Nulth of Clayoquot Sound. Nuu-Chah-Nulth cultural resources and culturally important areas, as identified by the Nuu-Chah-Nulth of Clayoquot Sound, must be clearly shown on maps, with particular attention to zones of high cultural and sustenance value. (First Nations sacred areas are a potential exception.)

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<sup>36</sup>For example, a sacred area or a medicine-gathering area might require a substantial reserve or “traditional park” status to protect it, whereas a culturally modified tree might be protected by a smaller area of “buffer” trees.

<sup>37</sup>Some work on the identification and documentation of biological resources in Clayoquot Sound has already been done, most notably through the initiative of the Hesquiaht First Nation in their “Management for a Living Hesquiaht Harbour” Project (Darling 1992; Charleson 1994). The results of this work are not yet public. A summary of biological resources of the Clayoquot Sound region is provided in Appendix V, published under separate cover.



### Operations

- R17 All operations in Clayoquot Sound relating to ecosystem management, such as environmental impact assessment, selection of silvicultural systems and harvesting methods, proposed use of herbicides and pesticides, and road location, construction, and deactivation, must be carried out in full consultation with the Nuu-Chah-Nulth of Clayoquot Sound.

### Education and Training

- R18 Provisions must be made for the Nuu-Chah-Nulth of Clayoquot Sound to participate in education programs relating to ecosystem management processes and practices to enable them to obtain the necessary background to co-manage Clayoquot Sound ecosystems.
- R19 As part of a system of forest worker qualification, all forest and ecosystem workers and managers should be provided with an opportunity to view educational videos produced by Nuu-Chah-Nulth people about Nuu-Chah-Nulth perspectives on forest practices and their impacts on the environment as well as about Nuu-Chah-Nulth culture in general.

### Employment

- R20 Firms must actively recruit First Nations in employment equity; federal government guidelines for employment equity must be followed.

### Monitoring

- R21 All ongoing ecosystem management activities must incorporate monitoring programs for impacts on biodiversity, soil, water quality, fisheries and marine systems, and cultural sites, with full consultation of and participation by the Nuu-Chah-Nulth of Clayoquot Sound.

### Evaluation

- R22 In full consultation with the Nuu-Chah-Nulth of Clayoquot Sound, impacts of present and ongoing forest activities in Clayoquot Sound must be evaluated through environmental and social impact assessment procedures.
- R23 Where damage to ecosystems, culturally important areas, and traditional resources due to these activities is likely to occur, mitigative actions must be undertaken.

**Restoration**

- R24 Where damage to ecosystems, culturally important areas, and traditional resources due to forestry activities is found, restoration must be undertaken.
- R25 All phases of restoration activities in damaged Clayoquot Sound ecosystems must be undertaken in full consultation and with active participation of the Nuu-Chah-Nulth of Clayoquot Sound.

**Research**

- R26 Research and inventory must be undertaken to complement Nuu-Chah-Nulth traditional ecological knowledge and experience.
- R27 Opportunities and imperatives for research on impacts of past, present, and future forest practices on Clayoquot Sound ecosystems, and on possibilities for employment identified by the Nuu-Chah-Nulth of Clayoquot Sound must be developed, in full consultation with and participation of the Nuu-Chah-Nulth of Clayoquot Sound, to enhance the effectiveness of sustainable ecosystem management.<sup>38</sup>

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<sup>38</sup>Research should include such topics as: effects of bark residues from marine log dumps on the spawning of herring; effects of forestry activities on herring spawning; effects on spawning fish and fry of temperature changes in rivers and lakes due to forestry activities; and potential for sustainable use of non-timber forest products in Nuu-Chah-Nulth economic development.

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## Appendix II

### Spirituality of Land and Sacred Sites within Sacred Areas

As the governments of British Columbia and of First Nations enter into interim measures agreements and co-management strategies, these new models for shared responsibility must reflect mutual respect and understanding of culturally based viewpoints. The following discussions of land and sacred sites are intended to communicate Nuu-Chah-Nulth concepts of respect and spirituality.

#### Land is Spiritual

In the Nuu-Chah-Nulth culture, land is spiritual, and the Nuu-Chah-Nulth connection to land is the foundation of their spiritual identity. As Nuu-Chah-Nulth elder Roy Haiyupis (1995a:1) explains, "We have a common Creator through which we share the land and the resources of the land and the seas."

Humans, as stewards of the lands and seas, are responsible to maintain, protect, and enhance these resources, and the Nuu-Chah-Nulth chiefs are responsible for stewardship of the lands, seas, and natural resources within the confines of their *hahuulhi*. Tribal laws demand strict observance of stewardship laws within *hahuulhi* boundaries.

Maintenance and enhancement of the natural food chain to sustain tribal members is a spiritual responsibility that extends to all people. So too is responsibility for maintaining and enhancing the quality and quantity of forest resources. This responsibility extends to future generations.

Because of the importance of their tribal territories to their culture and spirituality, the Nuu-Chah-Nulth feel strongly that they must regain control over these lands and resources. Accountability for stewardship must shift back to tribally-controlled government, and the benefits of caring for and using those resources must also return to the First Nations. By resuming responsibility for the well-being of their traditional territories, the Nuu-Chah-Nulth will recover their cultural and spiritual identity. By controlling the use of these resources, the Nuu-Chah-Nulth people will recover the means to support and direct their future.

#### Sacred Sites within Sacred Areas

The current designation and treatment of sacred sites by the British Columbia government is carried out in isolation from the broader Nuu-Chah-Nulth concepts related to the ownership and use of lands. Current practice does not adequately recognize that sacred sites, in many cases, can only remain sacred in the physical context of the larger areas in which they are located, and the cultural

context of the territories of the hereditary chiefs. The practice of compartmentalizing and isolating sacred sites as discrete points in a landscape denies the influence of that landscape and of Nuu-Chah-Nulth history and culture in determining what is sacred.

The Catface Mountain area of Clayoquot Sound illustrates the holistic view of sacredness held by the Nuu-Chah-Nulth people. This area has been used extensively by the Nuu-Chah-Nulth for many hundreds of years, and specific sites have been identified as places of spiritual and cleansing preparation for major hunts, as burial sites, and as areas where conferences were held by tribal groups planning for war. The importance of these "sites" far exceeds the events that have taken place—they are part of the spiritual bond between the Nuu-Chah-Nulth people and the land on which they live. Nuu-Chah-Nulth elder Roy Haiyupis explains this connection:

As much as the recognition that the people live in our chiefs' territories and are a part of that ownership of the land within the chiefs' territories, also the Land owns the people of the tribe so affiliated...our concept of "sacred" limits any projected use of the area around Catface Mountains. (Haiyupis 1995b:1)

Historic sites, in similar fashion, are sacred because they connect one generation with another and facilitate the transfer of tribal laws and customs through time.

As important as specific sites are, in themselves, the importance of the area in which they are found is more than the sum of its sacred sites. The western and southern slopes of Catface Mountain have many layers of meaning and purposes for the Ahousat people as a group and as individuals within that group. These connections range from ceremonial, historical, and spiritual, to hunting, berrypicking, and harvesting of cedar for canoes, planks, shakes, bark, and withes. The Nuu-Chah-Nulth see themselves as a living part of the land and its resources: "The people comprise the human elements of the Lands of the chiefs" (Haiyupis, 1995b:2). In the same way that they see themselves as part of the land, they see the sacredness of the land extending beyond individual sacred sites.

The Nuu-Chah-Nulth world view—*hishuk ish ts'awalk*, "everything is one"—must be respected by *all* governments involved in co-managing Clayoquot Sound. Catface Mountain area is a small portion of the Ahousat chiefs' territories. Its richness as a sacred area with a multitude of sacred sites underscores the imperative to recognize traditional territories for values far beyond the value of the timber that grows on them. To the Nuu-Chah-Nulth, there is a gradation of spiritual connection across the landscape. Sacred sites must be identified and protected within the context of these connections, and sacred areas must be defined and identified by the Nuu-Chah-Nulth for whom they are sacred.



## Appendix III

### Documents Related to Forest Practices Reviewed for Incorporation of First Nations' Knowledge and Interests

Document	Application	Cultural considerations
<i>British Columbia Archaeological Impact Assessment Guidelines 1991</i> (cited here as Apland and Kenny (editors) 1992)	provincial	Highly relevant; discussed in text (Section 5.5).
<i>Total Resource Planning. An integrated resource management approach to forest development: a proposed process</i> (B.C. Ministry of Forests 1993h)	provincial	No specific reference to First Nations' interests, except brief mention of cultural and heritage values in the list of factors needing definition within the general objectives (p. 4).
<i>Development Plan Guidelines, Vancouver Forest Region</i> (B.C. Ministry of Forests 1993c)	regional	Requires licensee to communicate with public and aboriginal peoples, with comments to be directed to licensee. Plan is to be based on the best information readily available to the licensee for sustenance use by First Nations and a variety of other values. There are no requirements to show culturally important areas other than readily known sustenance use sites. To make this document more effective, the information/inventory requirement must be an explicit responsibility of the licensee to meet the requirements of the <i>Coast Planning Guidelines</i> ; Ingram's cover letter has good points re: involvement of First Nations. Coverage in document (p. 2, paragraph 2) is too vague: the standard states "...satisfactorily addressing agency, public, and aboriginal concerns." It is unclear what this means and who decides.
<i>Coast Planning Guidelines Vancouver Forest Region</i> (B.C. Ministry of Forests 1992a, 1993a)	regional	Highly relevant; discussed in text (Section 5.5).
<i>Community Watershed Guidelines Project. Guiding Principles and Summary of Public Input</i> (Multi-agency Technical Advisory Committee 1993)	provincial	p. 31, under "5. Proposed Additional Guiding Principles," is included "the involvement of First Nations in planning for Crown land within identified aboriginal land claim boundaries," among a series of additions suggested by respondents in the public consultation process; concern for fisheries and cultural values expressed by some. (The importance of First Nations involvement should be recognized, even if not in a specific land claim area, as should the importance of other local involvement.)
<i>British Columbia Coastal Fisheries/Forestry Guidelines</i> (B.C. Ministry of Forests <i>et al.</i> 1993)	coastal	Highly relevant for First Nations, but no specific reference to cultural values or First Nations' interests; First Nations should be active participants in all planning and decision-making relating to fisheries.
<i>Guidelines to Maintain Biological Diversity in TFL 44 and 46</i> (B.C. Ministry of Forests 1991a)	TFL 44, 46	No reference to First Nations' interests. (There is need to recognize traditional ecological knowledge and management systems.)

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<b>Document</b>	<b>Application</b>	<b>Cultural considerations</b>
<i>Guidelines for Maintaining Biodiversity During Juvenile Spacing</i> (B.C. Ministry of Forests <i>et al.</i> 1993)	provincial	No reference to First Nations' interests or participation.
<i>Wildlife Tree Management in British Columbia</i> (Wildlife Tree Committee 1993)	provincial	No reference to First Nations' interests or participation.
<i>Guidelines to Maintain Biological Diversity in Coastal Forests</i> (draft) (B.C. Ministry of Forests 1993f)	coastal	No reference to First Nations' interests, or to the widely recognized relationships between cultural diversity and biodiversity.
<i>Interim Forest Landscape Management Guidelines for the Vancouver Forest Region</i> (B.C. Ministry of Forests 1990b)	regional	No direct reference to First Nations' interests; brief notation on "cultural features," pp. 11–12.
<i>Pre-harvest Silviculture Prescription Procedures and Guidelines for the Vancouver Forest Region</i> (B.C. Ministry of Forests 1991b)	regional	On p. 3, the third notation under "Other Resource Values" is the following: "Check land status and record any leases, licences or tenures... Note any heritage values such as historic trails or early Indian use of western redcedar for canoes." The list does not explicitly recognize First Nations' cultural inventory, except superficially under "other" category. The Panel recommends that there be an explicit requirement to consult First Nations and help with an inventory of sacred sites and other culturally important areas.
<i>Forest Road and Logging Trail Engineering Practices</i> (interim) (B.C. Ministry of Forests 1993e)	provincial	"Cultural values" listed on p. 21 under social, economic, and resource values that may be impacted by erosion and sedimentation events. Under the standard on p. 20, "Risk Assessment," First Nations should be involved in risk assessment procedures.
<i>Procedures for Factoring Recreation Resources into Timber Supply Analyses</i> (B.C. Ministry of Forests 1993g)	provincial	No direct reference to First Nations' interests.
<i>Cave Management Handbook (Including Cave/Forestry Guidelines for the Vancouver Forest Region)</i> (draft) (cited as B.C. Ministry of Forests 1990a)	coastal	Non-specific reference to archaeological (artifacts, pictographs, etc.), historical, and taphonomic deposits under cave management and classification consideration; no recognition of caves as sacred places or burial sites, or of consultation with First Nations regarding cave use and management (see p. 11, Appendix 1, Classification).
<i>Cave Management Symposium. Workshop synopsis and recommended action plan</i> (cited as Heikoop 1991)	provincial	B.C. Ministries of Forests, Parks, Environment, and Tourism represented, but not Aboriginal Affairs; no reference to First Nations' considerations, except "native peoples" mentioned (p. 3) as a regionally interested group.
<i>Tofino Creek Integrated Resource Management Strategy</i> (B.C. Ministry of Forests and B.C. Ministry of Environment, Lands and Parks 1991)	subregional	Highly relevant; discussed in text (Section 5.5).

**Clayoquot Sound Scientific Panel  
First Nations' Perspectives Relating to Forest Practices Standards in Clayoquot Sound**

Document	Application	Cultural considerations
<i>Watershed Rehabilitation Strategies</i> (draft) (B.C. Ministry of Forests 1991d)	provincial	No reference to First Nations' interests.
<i>Riparian Management in British Columbia. An important step towards maintaining biodiversity</i> (cited as Stevens <i>et al.</i> 1993)	provincial	No reference to First Nations' interests or participation.
<i>Clayoquot Sound Forest Practices Standards. Standards for the development and harvesting of timber in the general integrated management areas of Clayoquot Sound</i> (draft) (B.C. Ministry of Forests 1993b)	subregional	Little consideration of First Nations' cultural values, but acknowledgement of ongoing negotiations; discussed in text (Section 5.5).
<i>Updated Guidelines for 5 Year Development Plans, Cutting Permit Applications and Logging Plans</i> (Vancouver Circular Letter VR85-465) (B.C. Ministry of Forests 1991c)	regional	Potential for inclusion of First Nations' interests, e.g.: p. 1, "Referral to other agencies, such as the Heritage Conservation Branch may be requested (in planning process of 5-year development plan)"; p. 5, delineation on map plan: "11 'known' sensitive sites (including fish spawning, rearing or migration areas,...caves...assessed as sensitive)" "13 recreation inventory unit label...(including) historic/recreation trails...important recreation features (hot springs, waterfalls...etc.)" But culturally important areas themselves are not mentioned.
<i>Environmental Forestry. Plum Creek Timber Company's Approach to Forest Management. A Case Study.</i> (B.C. Ministry of Forests 1993d)	U.S., regional	No reference to First Nations' interests.



## Appendix IV

### Members of the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound

**Co-Chair**                      **Dr. Fred Bunnell**, Professor of Forest Wildlife Ecology and Management, Director of the Centre for Applied Conservation Biology, University of British Columbia.

**Co-Chair**                      **Dr. Richard Atleo**, Hereditary Chief UMEEK, Instructor, Malaspina University-College, and Researcher, Consultant, Indigenous Human Resources, Nanaimo

Other members of the Scientific Panel, by area of expertise:

**Biodiversity**                      **Dr. Ken Lertzman**, Assistant Professor, Forest Ecology, Simon Fraser University

**Dr. Chris Pielou**, Ecologist, Denman Island

**Laurie Kremsater**, Consultant, Forest Management and Wildlife Biology, Vancouver

**Ethnobotany**                      **Dr. Nancy Turner**, Professor, Environmental Studies, University of Victoria

**First Nations**                      **Ernest Lawrence Paul**, Hesquiaht Elder, expert in Hesquiaht history, culture, traditional resource use and language, Hesquiaht

**Roy Haiyupis**, Ahousaht Elder, expert in Ahousaht history, culture, language and traditional use of resources, Lytton

**Stanley Sam**, Ahousaht/Tla-o-qui-aht First Nations Elder, expert in First Nations history, language, culture and traditional resource use, Ahousaht

**Fisheries**                      **Dr. Gordon Hartman**, Consultant, Fisheries Biology, Nanaimo

<b>Forest Harvest Planning</b>	<b>Keith Moore</b> , Registered Professional Forester, Consultant, Environmental Forestry, Queen Charlotte City <i>(resigned from Panel December 16, 1994 when assumed position as Chair, Forest Practices Board, Victoria)</i>
<b>Hydrology</b>	<b>Dr. Mike Church</b> , Professor, Fluvial Morphology, Department of Geography, University of British Columbia
<b>Roads and Engineering</b>	<b>Dr. Peter Schiess</b> , Professor and Head of Forest Engineering, University of Washington, College of Forest Resources, Seattle
<b>Scenic Resources, Recreation, and Tourism</b>	<b>Catherine Berris</b> , Consultant, Landscape Architecture and Land Use Planning, Vancouver
<b>Silvicultural Systems</b>	<b>Dr. Jerry Franklin</b> , Professor, University of Washington, College of Forest Resources, Seattle
<b>Slope Stability</b>	<b>Dr. June Ryder</b> , Consultant, Terrain Analysis, Vancouver
<b>Soils</b>	<b>Dr. Terry Lewis</b> , Consultant, Soils and Land Use, Courtenay
<b>Wildlife</b>	<b>Dr. Alton Harestad</b> , Associate Professor, Wildlife, Simon Fraser University
<b>Worker Safety</b>	<b>Jim Allman</b> , Regional Manager, Workers' Compensation Board, Victoria <i>(resigned from Panel February 24, 1995 when assumed position as Manager of Occupational Health and Safety, Ministry of Forests, Victoria)</i>
<b>Secretariat to the Panel</b>	<b>Melissa Hadley</b> , Registered Professional Forester, Cortex Consultants Inc., Halfmoon Bay

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