OKANAGAN WATER SYSTEMS:
AN HISTORICAL RETROSPECT OF CONTROL, DOMINATION AND CHANGE

by

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B.A., The University of British Columbia - Okanagan, 2006

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE COLLEGE OF GRADUATE STUDIES

(Interdisciplinary Studies)

THE UNIVERSITY OF BRITISH COLUMBIA
(Okanagan)

September 2008

Abstract

In this study, I examine the history of colonial control, domination, and change that began in the Interior Plateau region of British Columbia in 1811 when interaction between the *Syilx* (Okanagan) and European explorers first occurred. I focus on water use practices in particular, employing an indigenous *Syilx* approach (*En'owkinwixw*) in order to display the negative impacts of colonial policies on the *Syilx* and their environment. The *En'owkinwixw* methodology, which calls for the incorporation of multiple perspectives, is thousands of years old, but has been modified here from its original consensus-based decision-making process.

The manner in which the U.S. government developed resource and water management policies in America's arid Far West directly influenced the models that were later adopted by British Columbia and Canada. U.S. Supreme Court decisions along with a number of international treaties and trade agreements between the United States and Canada have also compromised the ability of the *Syilx* to maintain a sustainable and harmonious relationship with their environment. Depression era policies in the United States led to the implementation of large-scale projects such as the damming of the Columbia River that had further negative consequences on the environment of the Interior Plateau. The Columbia River had been the destination for the world's most prolific salmon migrations but their numbers dropped abruptly after the dams were built. In 1954, on the British Columbia side of the border, a flood-control project was completed that channelized a section of the Okanagan River that meandered between Okanagan and Skaha Lakes. Oral testimonials from Penticton elders are presented to demonstrate the severity of biological loss and give eyewitness accounts of the negative social, economic, cultural and political impacts caused by this radical alteration to the river. Evidence from four traditional knowledge keepers who continue to live near the confluence of Shingle and

Shatford Creeks on the Penticton Reserve, indicates that water loss and ecological degradation in this area were caused by upstream water users outside of reserve boundaries. The study concludes with a proposal for the development of a collaborative and restorative ecological model based on application of the *En'owkinwixw* epistemology.

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Glossary of Sylix and Geographical Terms

The *Syilx* terms (in italics) are listed in alphabetical order and are followed by English interpretations that are based on meanings (morphemes) found in the syllables of each word. The glottal stop symbol (?) on the end of some of the words is a full breath stop that has a sound attached to it and it should be understood that for lack of an appropriate English alphabet keyboard symbol to represent the full glottal stop, the closest symbol to it is the question mark, which appears without the dot in the standardized *Syilx* form of the International Phonetic Alphabet (IPA) system. As well the use of the English letter e replaces the schwa which in sound is between the English a and e and appears as an inverted e in the *Syilx* form of the IPA. In addition I have eliminated the use of the pharyngeal a and simply replaced it with the English letter a as there is no equivalent English keyboard symbol. Similarly, where the x is glottalized and indicated as such in the *Syilx* form of the IPA, no equivalent symbol is available in English. I indicate in the glossary below where modifications are made.

The geographical terms listed below were used by early ethnographers and historians to describe landmarks, rivers, and certain tribal groups within the *Syilx* territory (for example, James Teit and David Chance use the word “Pisquouse” to mean “Wenatchi”).

Syilx Terms

c’aris-king fisher

ciwcw- Lewis woodpecker

en’owkinwixw-request to dialogue in an explicit method which adds to each other’s views without debate.

itxwa- camas (glottalized x)

kkni?-kokanee salmon (glottal stop at end)

mhuya?-raccoon (glottal stop at end)

miktu'ten-sunflower seed moon

nsilxtsin/nsyilxcn-*Syilx* language or speech

nxastatkw-watercress (glottalized x)

qwylan-porcupine

sxwupxwup-flying squirrel

sq'wequxwmina-dipper (schwa e)

siya/seeya-serviceberry or saskatoon berry

smukwaxn-wild sunflower

sngaytskstx-Bull Trout People (Lakes) (pharyngeal a)

snkstiya?-skunk

sntulcatn-a lot of deer

spi'tlum/speetlum-bitterroot

stunx-beaver

suma- white man

Syilx-original people who learned to live together on the land in peace; dreaming ones; bound together; of the land

timxw- sacred life force of all living things

ukwnakinx-geographical description of the Okanagan Valley and in some instances refers to the people that inhabit this region.

xwextilp-wild rhubarb (glottalized x)

xwuxwmina/ukmina- rainbow trout

To-qual-e-can--------Wenatchi chief

In-no-mo-se-cha-----Chelan chief

Su-cept-Kain---------Okanogan chief

To-nas-ket----------Okanogan chief

Chinchinmowah-----Colville (Kettle Falls, Nespelem, Sanpoil) chief

See-whehl-ken-------Kettle Falls salmon chief

Geographical Terms

Oakinackens-Okanagans

Piskowish River-Wenatchee River

Pisquouse-Wenatchi

Sahaptin-language family of tribes that also occupy areas of the Interior Plateau, for example, the Yakima, Nez Perce and Umatilla tribes.

San Puelles/Sinpnuelish-Sanpoil

Schwoyelpi/Schweyelpi-Kettle River people

She Whaps-Shuswhap

Sinkaietk-Southern Okanagan people

List of Abbreviations

Bureau of Indian Affairs……BIA

Department of Indian Affairs…….DIA

General Agreement on Tariffs and Trade……..GATT

International Phonetic Alphabet…….IPA

International Joint Commission……..IJC

North American Free Trade Agreement…….NAFTA

Penticton Indian Band…….PIB

Traditional Ecological Knowledge…….TEK

Western Science Knowledge……..WSK

World Trade Organization……..WTO

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Acknowledgements

I would like to acknowledge the support of the Chief and Council of the Penticton Indian Band, the *Syilx* elders, the Okanagan Nation Alliance, and the En'owkin Centre. I would like to thank the Social Sciences and Humanities Research Council of Canada for awarding me a Canada Graduate Scholarship in 2007. The College of Graduate Studies at the University of British Columbia Okanagan and the Higher Education Department of The Colville Confederated Tribes were financial contributors to my Masters of Arts studies and I thank both educational departments for their support. Lastly and most importantly, I would like to thank my friend and Master of Arts supervisor, UBCO Assistant Professor, Dr. John Wagner, who has been my "water" mentor and collaborator since 2003 and this relationship is evidence that diverse cultures and personalities can find common ground and interests from which to launch provocative thought, perspective, and action.

Chapter 1 Introduction

The intent of this inquiry will be to give an historical overview of how the *Syilx* (Okanagan) used the land and water systems of their territory during the early contact period to the present and how European colonization policies negatively impacted indigenous *Syilx* societies. Their social, cultural, economic, and political structures were radically altered when the centuries old land/human relationships were disrupted by European incursion. Water management policies and legislation in the western United States and Canada have contributed to the degradation of the Okanagan water systems.

The *Syilx* people that inhabit the Interior Plateau region of the Columbia River basin live in near proximity to four trans-boundary rivers found within their territory - the Columbia, Okanagan, Similkameen, and Kettle Rivers. When early European explorers like David Thompson and David Stuart traveled these river systems they witnessed and experienced an environment that supported the biodiversity that was unique to the Columbia River basin. As the David Thompson expedition traveled down the Columbia River in 1811 they did so in the moon called "*miktu'ten*" (sunflower moon) by the *Syilx*. During this cycle of the moon they would have witnessed millions upon millions of white *siya* (saskatoon/serviceberry) blossoms and a sea of yellow provided by the *smukwaxn* (wild sunflower). These vibrant colors would have been set amongst the tall grasses that grew on the hills and bottomlands along the Columbia River. These first explorers would have also seen large herds of deer, elk, mountain sheep, and mountain goats, not to mention the large flocks of migrating waterfowl.

Prior to European contact, during the 1770s, *Syilx* populations were severely reduced due to the introduction of deleterious European diseases. The severity of actual

losses will never be known, yet according to oral sources given by various individuals throughout the *Syilx* territory it was a common occurrence for entire villages to be wiped out. The rapid spread of smallpox could be attributed to the prolific Interior Salish trade networks that extended beyond the Rocky Mountains to the Plains country and to the coastal regions of the Pacific Northwest. At first contact the indigenous people of the Interior Plateau were the first generation survivors of the virulent pandemic (Scheuerman 1982:21; Ray 1933:21).

The arid environment of the Interior Plateau region of the Pacific Northwest contained numerous rivers that served two primary purposes for the indigenous inhabitants: firstly they provided spawning grounds for migrating salmon; secondly they provided a transportation system. The land provided numerous root food resources as well as a multitude of berries that grew in the diverse ecosites found in the territorial boundaries of the *Syilx.* The ecosites range from semi-arid Sonoran desert areas to sub-Alpine mountain ranges. The *Syilx* consistently used all ecosites to procure subsistence resources and were often required to travel great distances for hunting, fishing, and gathering purposes.

Soon after first contact the *Syilx* were introduced to a foreign trade economy that corrupted their sustainable trading networks that had existed for thousands of years. *Syilx* participation in the fur trade economy had immediate negative consequences on their social, cultural, economic and political institutions. The sustainable trading networks and practices that had existed for thousands of years were suddenly abandoned and replaced with a new market-based fur trade economy.

Over the following decades, the western expansion of the settler populations continued to disrupt both the land and the indigenous inhabitants. European settlement in America's Far West during the 1850s prompted the development of policies that were intended to control the water resources within specific watershed areas (Reisner (1986:2). The development of water policies in the American Far West during the 1850s established the frameworks that the governments of the United States and the Dominion of Canada would expand upon in the 20th century.

The Old Utah Code of 1852 and a series of agreements and treaties between the governments of the United States and Canada established the frameworks for subsequent national and international policies. The 1908 U.S. Supreme Court decision, *Winters v. United States,* set a legal precedent that defined indigenous reserved rights to water that flowed through their treaty reservations. These rights were based on historical occupancy and usage along with the assumption of pre-existing rights prior to incursions of European laws (Shurts 2000:6, 72-74). Although indigenous reserved rights were acknowledged in the *Winters* court decision, this ruling has been ignored under concepts of 'beneficial use,' 'conservation,' and 'public interest.'

These agreements, treaties and legal decisions determined the manner in which water policy developments impacted the ecosystems in the Columbia River basin. In the 1930s the negative impacts on the ecosystems were aggravated by the construction of dams on the Columbia River. The dams created an impediment that inhibited the migration of the salmon stocks that for thousands of years faced only natural obstacles on the fast flowing Columbia and the meandering Okanagan River. The dams were not the

only significant agent that caused negative impacts as agriculture, cattle and sheep ranching, and mining ventures were contributing factors to ecosystem degradation.

The *Syilx* people participated in the shift from a sustainable trade economy to an economy based on capitalist ideologies that revolutionized the collective *Syilx* consciousness that was embedded in cultural ethics, protocols, and responsibilities. The 21st century *Syilx* peoples are asserting their traditional worldview and establishing their former temporal placement in the order of existence within their ecosystems. The social and cultural organizations in many of the communities of the *Syilx* are reflective of this resurgence and dependence on the traditional ways of knowing.

Theory and methodology

The complexity of perspectives accumulated in the course of this research project demands the inclusion of diverse theories and methodologies. An interdisciplinary transformative strategy based on *En'owkinwixw,* an indigenous *Syilx* epistemology, is employed in this inquiry. *En'owkinwixw* is reliant on the integration of diverse theoretical approaches and perspectives; in this instance environmental history, political ecology, feminist, and post-colonial theories will be contributors to this inquiry. The *En'owkinwixw* approach, simply defined and applied, is a whole systems decision-making approach that encourages the exchange of diverse ideas and perspectives for the benefit and common good of the land, community and nation. This indigenous *Syilx* analytical methodology incorporates and encourages the most opposite and diverse theories and perspectives based on data accumulated from the youth, elders, mothers and fathers to collectively arrive at the best solution to a given problem (Armstrong and

Cardinal 1991:70,102). The *Enowkinwiwx* approach maintains that existing life forms in the natural world have status, rights and privileges that are equal to humans and all those benefits must be recognized and protected. Therefore, the *En'owkinwixw* epistemological approach, as applied in the academic setting, is dependent on two substantial factors: firstly, the inclusion of diverse theoretical worldviews; secondly, the issuance of a challenge (to oneself or others) to implement the accepted academic theories and methods to develop an integrated systems approach that benefits the human population and the ecosystem as a whole.

Although broad and inclusive in approach, the *En'owkinwixw* methodology also requires that the perspectives of *Syilx* elders and knowledge keepers be fully and clearly represented in the study, and that the relationship of language to *Syilx* knowledge be respected. The *Syilx* language is the foundation of the traditional knowledge systems and a resurgence of a collective responsibility to the *timxw* (sacred life force of all things) has altered the consciousness of the individual, family, community and Nation. Four traditional knowledge keepers and active land users who are members of the Penticton Indian Band were interviewed so that they might divulge in their own words the experiences and relationships they share with their ecosystem. Elders from the Penticton Indian Band (PIB) also share their perspectives on the negative impacts that resulted from the channelization project that removed the oxbows from the Okanagan River. The environmental damage that occurred to the riparian and wetland areas at two separate ecosites on the Penticton Indian Reserve considerably altered the manner in which PIB members were able to use the land and its resources. The salmon, beaver, muskrat, mariposa lily, watercress and wild rhubarb are a few examples of the species that were

extirpated from the wetlands and riparian areas of the water systems on the Penticton Indian reserve.

This study also incorporates the theoretical perspectives articulated by indigenous Pacific Island scholars such as Melanie Anae (Anae *et al.* 2000) and Linda Smith (2002). The Pacific peoples' past and contemporary cultural and spiritual beliefs are embedded in theoretical principles which first and foremost call for the research to be conducted from an indigenous perspective based on traditional value systems with respect and acknowledgement of nature and other peoples' knowledge systems that then guide and influence the research outcome.

This study is also informed by the work of environmental historians, notably Daniel Worster (1985). An environmental historical approach is necessary, as it will be my intent to document the ecosystems of the Interior Plateau region as witnessed and documented by the first European explorers in this region. It is obvious that it is not possible to fully construct the landscape or view the diversity of flora and fauna present during this time period. Therefore, it becomes necessary to depend on the methods of documentation provided by these early explorers, geographers, government officials, military observers, and missionaries, while at the same time recognizing the ways in which those observers' perceptions were shaped by their cultural backgrounds and personal interests.

The importance of a regional political ecology perspective in this study is critical to understand the sensitivity of the diverse ecosystems within the territory of the *Syilx*. Regional political ecology as described by Roderick Neumann (2005:34) contends that:

> It is necessary to take account of environmental variability and the spatial variations in resilience and sensitivity of the land, as different demands are put on the land through time. The word 'regional' also implies the incorporation of environmental considerations into theories of regional growth and decline.

Transformations within the social institutions of the *Syilx* were determined by rapid changes to the ecosystems that influenced the cultural human/land relationship within this region.

Feminist theory and perspectives on the issues that arise in this study are complex and much needed. The connection to land, culture, and community are of utmost importance as exemplified in the writings of two *Syilx* women, Mourning Dove (1930, 1990), and Jeannette Armstrong (1991). Mourning Dove and Armstrong offer perspectives that differ from the ideologies and theories of contemporary feminist thought. Although defined as feminist theory, the indigenous women's perspective might be best described as promoting and maintaining an egalitarian perspective on gender roles when dealing with family, community and national affairs. Unlike standard non-indigenous feminist theory (Ortner 1974), this approach is not rooted in theories or assumptions of gender inequality.

Postcolonial theory comes the closest to capturing all of the varied streams of academic theory identified above. Marie Battiste and James Youngblood Henderson (2000) and John C. Mohawk (2000) are examples of indigenous scholars who have contributed to postcolonial theory by integrating worldviews and theories of North American indigenous peoples into their academic publications. Postcolonial theory, according to Peter Childs and Patrick Williams (1997:1), "refers to a period coming after the end of colonialism…the dismantling of structures of colonial control." This

perspective offers a space for an indigenous theoretical approach that is dependent on diverse opinions that emanate from other disciplinary approaches. It will be my intent to coalesce two diverse knowledge systems or ways of knowing traditional ecological knowledge (TEK) and western science knowledge (WSK), into a collaborative approach that juxtaposes historical and scientific evidence with oral indigenous narratives to offer a cumulative perspective that may ultimately lead to a holistic sustainable land and resource use practice.

Chapter 2 Syilx History, Culture and Environment

The land and environment of the Columbia River Interior Plateau region can be described as comprised of a vast array of geographical formations and climatic zones. Included within this diverse landscape are arid desert regions, grasslands, alpine mountain regions, forests, wetlands, and a major river system that was supported by numerous tributaries. The diverse ecosystems were a result of pronounced climatic changes that occurred as a result of the retreat of the Okanagan glacier that occurred approximately 11,000 years ago (Daugherty 1959:14; Baulig *et al.* 1924:471,473). As the glaciers receded and the climate changed, new species began to move into the area and new habitats emerged. Most notable were the yellow pine forests and the influx of abundant grasses (Daugherty 1959:13-14).

Carbon dated archeological evidence places human habitation along the Columbia River soon after the glacial retreat between 9,000 to 11,000 years ago in the Lind Coulee region **(**Linenberger 1998:2; Hunn 1990:6). The diversity of flora and fauna that followed the retreat of the glacier provided an abundant supply of sustenance for the indigenous peoples who inhabited this region. Another climatic phase occurred approximately 7,000 years ago and was marked by higher temperatures and resulted in a drier climate in this region and first emergence of a semi-desert environment (Daugherty 1959:14). Approximately 4,500 years ago yet another climatic change called the Medithermal Period engulfed the Interior Plateau and this cool moist climate lasted for approximately 2,000 years. Over the last 2,500 years the climate has remained much as we experience it today (Daugherty 1959:14).

Political organization

The original human inhabitants of the Columbia River Basin were Salish speaking peoples and their territory encompassed vast areas of North Central Washington and South Central British Columbia. Political boundaries within this region were based on land and resource use, geographical occupation, linguistics, and the cultural, social, economic, and political relationships among these Salish groups. These diverse Salishan groups were one people yet recognized themselves internally as autonomous entities that occupied and controlled definitive geographical regions of the Interior Plateau. Regardless of differing inter-tribal perspectives on political autonomy it remains clear that all tribes in this study area closely related through marriage, culture, and language. Therefore, those indigenous societies that occupy lands within the Columbia and Okanagan River regions and speak *nsilxtsin* (*Syilx* peoples language) will be identified as *Syilx* for purposes of this inquiry.

The term 'Okanagan' has been used historically to refer to the indigenous people who speak a distinct but related Interior Salish dialect. Randy Bouchard and Dorothy Kennedy (2000:8-9) point out that the Northern Okanagan had no name to distinguish themselves from the Southern Okanagan, yet the term *ukwnakinx* refers to all the indigenous peoples that live along the Okanagan river drainage. Verne Ray (1964:111) and Elizabeth Vibert (1995:209) consistently refer to the Wenatchi, Southern Okanagan, Sanpoil, Colville, and Lakes as being separate political entities yet they are tied to a single linguistic family.

It is well documented that the indigenous peoples who occupied the Okanagan River and Lakes system were considered as being a part of a greater Nation. However,

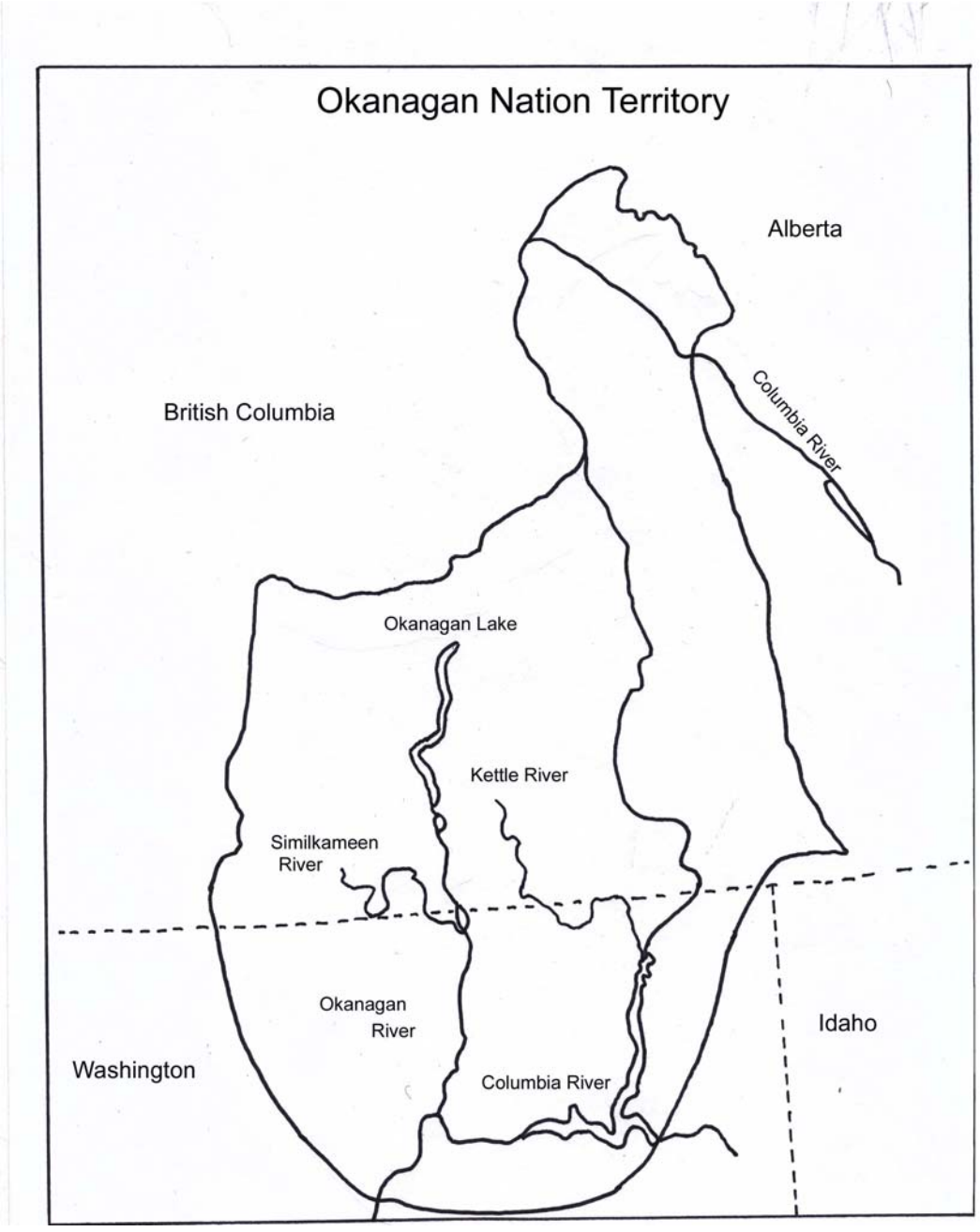
sub-groups within the greater Nation may not associate or recognize themselves as being *Syilx*. The shared use and occupancy by the original inhabitants of this large Interior Plateau region without a doubt revolved around the water systems found within the traditional territory of its Salish inhabitants. The Okanagan water systems are identified as being a part of the greater Columbia River Basin.

Territory

There have been numerous geographical descriptions of the traditional territory of the *Syilx* since the first contact era during the early 19th century (Teit and Boas 1973; Ross 1969; Gibbs 1967) (Figure 1). These descriptions are not entirely accurate but will serve for the purposes of this study. The *Syilx* were separated into two equal divisions by the introduction of an invisible boundary between the United States and the Dominion of Canada in 1846 (Chance 1973:7; Harris *et al* 1989:3). In Canada the *Syilx* are the easternmost division of the Salish found in the province of British Columbia and are referred to as the Northern Okanagan (Hill-Tout 1978:133). It is James Baker's (1990:26) contention that the Okanagan tribes have occupied the area identified as their traditional territory for at least the past 10,000 years.

Alexander Ross (1969:311-312) describes the traditional territorial boundaries of the *Syilx* as including, in the south, the Priest Rapid's region of the Columbia River:

Figure 1. Okanagan Nation Territory.



Source: Okanagan Nation Alliance. 2000. Compiled by Wilfred Barnes and Rose Caldwell. Accessed at En'owkin Centre Library, Penticton, BC.

> The Oakinackens inhabit a very large tract of country, the boundary of which may be said to commence at the Priest's Rapid on the south. From thence, embracing a space of upwards of one hundred miles in breadth, it runs almost due north until it reaches the She Whaps, making a distance of more than five hundred miles in length. Within this line the nation branches out into twelve tribes, under different names. These form, as it were, so many states belonging to the same union, and are governed by petty chiefs who are, in a manner, independent; nevertheless, all are ready to unite against a common enemy. These tribes, beginning at the southern boundary and taking each according to its locality, may be classed as follows: Skamoynumachs, Kewaughtchenunaughs, Pisscows, Incomecanetook, Tsillane, Intietook, Buttlemuleemauck, or Meatwho, Inspellum, Sinpohellechach, Sinwhoyelppetook, Samilkameigh, and Oakinacken, which is nearly in the center. All these tribes, or the great Oakinacken nation, speak the same language, but often differ a good deal from one another as to accent.

As noted by Alexander Ross (1969) the Okanagan territory encompassed an area that was approximately 100 miles wide and nearly 500 miles long. This area would extend into the Columbia Basin area in the east to the summit of the Cascade Mountain range in the west. It should be noted that shared use and occupancy in all the northern and southern border regions of *Syilx* territory was evident, most notably with the Shuswap and the Sahaptin tribes.

It is important to make explicitly clear the defining of the southern boundary region as being of shared use and occupancy between the Sahaptin speaking Yakima tribe, the Columbia Moses tribe and Wenatchi tribe. According to the 1804-1805 journals of Lewis & Clark, these explorers witnessed bands of the Wenatchi tribe occupying lands at the headwaters of the Klickitat and Yakima Rivers that originate south of the Wenatchee Mountains (Scheuerman 1982:17-18).

University of Washington Anthropology professor, Verne F. Ray (1964:149) identifies the southern linguistic boundary in the following statement:

> Again, in the American Plateau, a linguistic transition occurs, this time involving the Salish and Sahaptin stocks. The boundary crosses the Plateau laterally about two degrees (180 miles) south of the Canadian boundary. The linguistic boundary, itself in no way corresponds to cultural transitions, even of a secondary order. The Sahaptin-speaking Kittitas, for example, have far more in common with their Salishan neighbors on the north, the Wenatchi, than they have with their Sahaptin neighbors, the Yakima, on the south.

This would indicate that the Wenatchi bands constantly used and occupied the Yakima and Ellensburg valleys and at some point after 1805 began shared use with Sahaptin groups migrating out of central Oregon (Scheuerman 1982:24). Richard Scheuerman (1982:24) also points out that by the middle of the 19th century the effects of contagious diseases had depopulated the Wenatchi bands and at this point they were forced to the upper reaches of the Yakima and Naches Rivers by the northward migration of the Sahaptin tribes. The southern boundary region without a doubt was in political control of the Wenatchi people as this Okanagan sub-group had permanent villages on both banks of the Columbia River extending as far south as the Priest Rapids.

George Gibbs (1967:18) describes the Wenatchi's social relationships with their Sahaptin neighbors and gives a physical description of Wenatchi (Pisquouse) territory:

> The country of the Pisquouse lies immediately north of that of the Yakimas, and we entered it next upon our route. Under this appellation are here included the Indians on the Columbia between the Priest's and Ross rapids, on the Pisquouse or Winatshapam river, the En-te-at-kwu, Chelan Lake, and the Methow or Barrier river. The Pisquouse themselves, as has before been remarked, are so intermarried with the Yakimas that they have almost lost their nationality. These bands were formerly all united under one principal chief *Stal-koo-sum*…He was killed a few years since in a fight with the Blackfeet…The Okinakanes comprise the bands lying on the river of that name as far north as the foot of the Great Lake…The country of the Pisquouse and Okinakanes may be described together, and it is mountainous and sterile, the valleys narrow.

The Okanagan drainage extends to the present day Vernon, BC area and stretches down to the area around Brewster, Washington. L. Norris (1929:29) notes that the word Okanagan:

> …applies to the country there, but [is] extended to include first a small band and afterwards a large and important division of the Salish Indians, who occupied the west side of Okanagan River, Washington, from old Fort Okanagan to the Canadian boundary and in British Columbia the shores of Okanagan Lake and the surrounding country.

According to Randy Bouchard and Dorothy Kennedy (2000:45), the Lakes or *Sngaytskstx* (Bull Trout People), as they refer to themselves, occupied the northern most region of the *Syilx* territory. The *Sngaytskstx* occupied and used a vast area within the *Syilx* territory and the following geographical description is derived from an unpublished James Teit map:

> The Lakes held the country from the area north of Revelstoke, to as far south as Marcus, Washington. The western boundary along the Gold Range, extending south through Grand Forks and including the Kettle River from near Danville down to the area where the Kettle meets the Columbia. The eastern Lakes boundary extended in a northeasterly arc from Marcus, up through the Salmo area and crossing the West Arm of the Kootenay Lake between Nelson and Procter. From here, the eastern boundary proceeded north along the divide between Slocan Lake and Kootenay Lake, crossed the Lardeau River immediately north of the upper end of Kootenay Lake, and continued further north along the western side of the Duncan and Beaver Rivers to the Rogers Pass area (Bouchard *et al* 1985:10).

James Teit's description of the physical boundaries of the *Sngaytskstx* are supported by his friend and associate, Franz Boas, in this exert from correspondence between the two:

> Boundaries: Lakes all country along both banks of Columbia from around Marcus & Newport up to beyond Revelstoke including Rossland & Trail on the west. Kootenay River up to Lake around Nelson or a little above although not much used at least lately. All Slocan River & Slocan & Trout Lakes (Bouchard *et al* 2000:51).

It was not until the conclusion of the 1855 U.S. military occupation of the Interior Plateau region of the Washington territory that the chiefs of the Columbia Basin Salishan tribes defined the land base that they wanted included in the treaty as their own. A.J. Splawn (1980:25) lists the territories that the chiefs defined at the treaty talks of 1855:

> To-qual-e-can, for the Wenatshas (Wenatchi), that country north of Ow-hi's boundary to Lake Chelan, and east as far as Grand Coulee. Ow-hi's northern boundary was the summit of the Wenatsha Mountains.
>
> In-no-mo-se-cha, for the Chelans, that country north as far as Methow, then east to Grand Coulee.
>
> Su-cept-kain, for the Okanogans, all north of the Methow to the boundary of British Columbia with the Okanogan River for the east boundary. All of the above boundaries extended west to the summit of the Cascades.
>
> To-nas-ket claimed for the Kettle Falls tribe of the Okanogans, all that country between the Columbia River and the east bank of the Okanogan north to the boundary of British Columbia.
>
> Chin-chin-no-wah, for the Colvilles, asked for the land east of To-nas-ket's boundary, including the Spokane and Colville valleys.

After the 1855 treaty talks it was over two decades before the federal government under President Grant's administration set aside lands for the Okanagan tribes. President Grant issued orders on 2 July, 1872, to create a reservation that was, "bounded on the east and south by the Columbia River; on the west by the Okanogan, and on the north by the International Boundary between the United States and British Columbia" (Steele 1904:489). It should be noted that in April 1872 the original land base of the reservation included the entirety of the Colville valley that lay east of the Columbia River and was subsequently amended by executive order in July of the same year (Gooding 1994:1220). Bruce A. Wilson (1990:71) mentions that President Grant's executive order displaced

4,200 indigenous Okanagan people who were scattered about the territory and in many instances the forced extrication process turned violent.

The territory claimed by the *Syilx* and their sub-groups that lay west of the Okanagan and Columbia Rivers were ignored in this original designation, leaving a huge part of the traditional territory of the Chelan, Methow, Entiat and Wenatchi outside of reservation boundaries. A great deal of these lands on the west side of the Okanogan river, extending to the summit of the Cascade Mountains were granted as reservation lands in 1879, adding approximately 4,000 square miles to the Okanagan reservations (Steele 1904:490).

The effects of 1855 Indian Wars in the Washington Territory directly influenced the establishment of the Okanagan reserves for the *Syilx* that resided north of the 49th parallel. Cole Harris (2002:37) notes that the colonial government of British Columbia, in order to quell the fears of miners and early settlers, directed William G. Cox, the gold commissioner and magistrate at Rock Creek, to mark out the Okanagan reserves in the year 1861.

Population

Pre-contact North American indigenous population estimates vary from extreme lows to moderate highs but offer a starting point for the estimation of pre-contact population figures in the Okanagan territory (Reich 1998:25; Boorstin and Kelley 1986:10; Thornton 2004:68; Inouye 1992:preface). James Teit and Franz Boas (1973:211-212) estimated the Okanagan's population prior to contact at 10,000, based on Teit's 1903 census count of 2,579 and on Syilx oral narratives proposing that their

numbers were formerly at least four times greater. Teit and Boas' estimate might be considered a conservative figure, as there are those that contend that the North American indigenous populations were depopulated at a ratio of 20 to 1 in some areas (Baker 1990:35-36).

The first documented smallpox pandemic swept through the Interior Plateau region of the Pacific Northwest in the 1770s and the first-contact Syilx populations were the first generation survivors of these pandemics (Boyd 1994:7,34). According to oral sources provided by the Syilx, they contend that in many instances the entire village populations were totally wiped out by these deadly diseases (Lindley 1980:3). William Cronon (2003:85-86) corroborates this fact, "European diseases struck Indian villages with horrible ferocity. Mortality rates in initial onslaughts were rarely less than 80 or 90 percent, and it was not unheard of for an entire village to be wiped out."

It is well documented that there were a number of outbreaks of smallpox in the Interior Plateau region of the Columbia Basin beginning in the 1770s that nearly wiped out the indigenous inhabitants. A second outbreak in the Columbia Basin area occurred between 1800-1801 and reduced the remaining survivor populations by an additional 45 percent (Vibert 1995:206).

The *Syilx* trade networks assisted the introduction and rapid spread of exotic diseases throughout their traditional territories and indubitably it was these maladies that led to the severe de-population of the Okanagan. As an example, David Chance (1973:121) notes how the trading activities that encompassed the fishing site at Kettle Falls assisted in the spread of smallpox in this region, "…the people living at the fishery

were exposed to diseases entering from every direction—there was no possibility of isolation."

David Thompson visited Kettle Falls for approximately one month from late May or early June 1811, leaving this fishing site on July 3 of the same year and stopping at a nearby Sanpoil village where he conducted the first documented census of a *Syilx* village (Bouchard and Kennedy 1979:21). It should be noted that late in May and early June the bitterroot is mature and ready for harvest. Since there is no bitterroot growing in this region, entire family units would be traveling to the digging grounds located in other parts of the territory (Nelson 1973:375). The transient groups of Indians that David Thompson observed at Kettle Falls quite possibly would have included tribal people from the nearby villages, including the Sanpoil.

Upon entering the Columbia River Plateau region Lewis & Clark made population estimates on bands of Indians they observed in villages along the Columbia River. However, David Chance (1973:116) points out that Lewis & Clark were never closer than 160 miles to the Kettle Falls area and it would have been impossible for them to make any valid estimates. Inaccuracies were inevitable in this and many other instances because of the inconsistent manner in which census figures were collected and the mobile lifestyle of the *Syilx* people.

The *Syilx* relationship to the environment

The *Syilx* had an ethical responsibility to maintain and live in a co-existing and reciprocal relationship with the natural world as it, in most instances, provided a more than adequate supply of roots, berries, large and small game, and a rich protein source in

the salmon. Patterns of land and resource use shifted continuously within *Syilx* territory, as most subsistence resources were only available during certain times of the year. As a result, areas such as root gathering grounds, hunting grounds and fishing sites were not continually inhabited. James Baker (1990:30) reflects as follows on the habitation and usage of the diverse ecosites found within traditional Okanagan territory:

> The main habitation area is the lower elevation winter village located close to resources that can be exploited during adverse conditions: fire-wood, building materials, game, water, etc…Base camps at higher elevations would be located in the spring in areas where roots, game, material for stone tools might be exploited. The summer base camps would be located to take advantage of the major fish resources, while others might be located in areas where berries could be harvested and prepared for storage. The fall base camps at higher elevations would be located to exploit deer, elk, sheep and goats, while other localities would enable exploitation of nuts, berries, bulrushes and other materials of manufacture.

Susan Gooding (1994:1220) suggests that the 1855 treaty negotiations with Isaac Stevens were terminated because the Okanagan Chiefs determined that too many of their people were scattered across the territory gathering roots. This would be the primary reason for the Nespelems, Okanagans, and Sanpoils to migrate over a vast expanse of the territory within the central Interior Plateau region, often as far south as the Big Bend of the Columbia (Brown 1961:128-129). Continuous travel to the root digging grounds also served a political purpose as they were asserting their root digging rights in this area. Bitterroot was the first root food that was gathered in the spring. According to Richard Post (1938:32) the chief would instruct a few women to prepare some of his supply and feed it to those who gathered at the site; after the feast all the people were allowed to go out and gather this food. After the first food ceremony was completed other early root foods such as the camas (*i'txwa)* and saskatoon (*siya)* could then be gathered.

A question arises as to why some of these tribes would travel long distances to the southern reaches of their territory to gather food. The answer is simply that camas, wild onions, wild celery, saskatoons, and wild potatoes were ready for harvest weeks earlier in the southern regions of the territory. Bitterroot was one of the staples of the Okanagan people as it could be easily dried and preserved for winter storage and was found throughout the territory. Mary Carden in conversation with Richard Post (1938:26) describes the areas within the *Syilx* territory that Bitterroot was found:

> Hills seven miles north of Pateros on the south side of the river; all the way from Twisp to Winthrop on hills either side of the Methow River; all around Dudley Lake, about twelve miles east of Monse; on the east side of the Columbia River in the hills east of Waterville. The Kartaro people dug it at three places; at the south end of Lake Omak; meadows south end of Kartaro Creek; near the present post office of Kartaro. It was common in Northern Okanagan territory.

Descriptions of the environment as it existed at that time are also found in the letters and writings of some of the early European settlers. Mrs. S. Allison and her husband were prompted by Provincial Governor Douglas to consider the Similkameen area for settlement because he described the territory as, "a paradise with mountains covered with tall grass" (Ormsby 1976:13). Mrs. S. Allison (1892:305-309) noted that this region abounded in natural food resources such as beaver, bitterroot, wild potato, black lichen moss, onions, sunflower, bear, serviceberry, tiger lily, and the soapberry as primary food sources.

Between the years 1867 to 1880 Susan Allison describes the abundance of diverse food sources found in the mountains and valleys in the Similkameen district:

> The Similkameen River and its tributaries gave us trout, Dolly Vardens and Greyling in abundance. We had heavy crops of saskatoons, raspberries, strawberries, huckleberries, in their season. Wild roots and vegetables for those who knew enough to gather them, and for those who

> desired meat there was deer, bear, grouse, wild chicken and ptarmigan. In short, the place was then what Phillips Wooley afterwards named it, "A Sportman's Eden." We rode silently through rye grass that was up to our shoulders on horseback…(Ormsby 1976:31,41).

Mrs. Allison, who often traveled on horseback throughout the neighboring Okanagan Valley, described it as, "…well-watered, and there was [sic] vast ranges covered to their tops with a thick and high growth of bunch-grass, which waved in the wind like a field of growing grain" (Ormsby 1931:47-48). The variety of game animals found along the Okanagan River area was similar to the adjacent valleys and Mrs. Allison provided eyewitness accounts of wolves running in packs of ten to twenty and noted that during the winter months it was not unusual for snow to accumulate to depths of three feet (Ormsby 1976:25,54).

In the Osoyoos region that straddles the US/Canada border there are many species that exist only in this locale and are not found anywhere else in British Columbia, much less Canada. As noted earlier, the Osoyoos area is the northernmost part of the Sonoran Desert and the flora and fauna found there are species that flourish in an arid environment. The Upper Austral Zone transitions into the Upper Sonoran Faunal area approximately at Okanagan Falls, British Columbia, 40 km north of Osoyoos (Dobson 1999:20; Ormsby 1931:6-7). Found within this unique setting are a number of birds and mammals that are found nowhere else in Canada. D.A. Dobson (1999:20) lists some of the rarest species that include:

> The Burrowing Owl, Brewer's Sparrow, Nevada Sage Sparrow, Lazuli Finch, Sage Thrasher, Nuttail's Poor-will, Bullock's Oriole, Rough-winged Swallow, Five-toed Kangaroo Rats, Pocket Mice, Grasshopper Mice, Sage Chipmunk, Sage Cottontail, Idaho Rabbit, Black-tailed Jack and the Oregon, Utah and Townsend's Ground Squirrels.

Salmon

The Columbia River served two primary purposes for the *Syilx* people; firstly as a mode of transportation and, secondly, as the destination for the largest salmon migrations on the Pacific West Coast of North America (Chance 1986:1). According to Jeannette Armstrong (1998:181) five species of salmon traversed the Columbia River; the chinook, sockeye, coho (silvers), chum and pink salmon stocks. Margo Greenwood (1997), Randy Bouchard and Dorothy Kennedy (1984), and Richard Post (1938) list other fish species that inhabited the river and lakes systems found within the greater Okanagan territory including sturgeon, white fish, kokanee, steelhead, dolly varden, rainbow trout, suckers, lamprey eel, chub fish, squaw fish, ling cod (devil fish), Columbia River smelt, speckled and bull trout.

During the early contact period the majority of the *Syilx* tribes were dependent on the salmon that traversed the Columbia and Okanagan River systems. In the course of his inquiries, David Chance (1973:14) has estimated that Interior Plateau Salish tribes on average relied on salmon for fifty percent of their subsistence. It has been determined that the Southern Okanagan consumed four or five times more salmon than other game animals, even curing enough salmon to last them through the long winter months (Post 1938:12; Dryden 1949:99).

Without question the famous fishery at Kettle Falls was the largest and most important gathering site on the Columbia River for the Interior Salish, especially those tribal peoples that controlled and lived at this location. As a result of an archeology study conducted at Kettle Falls**,** David and Jennifer Chance (1977:1) concluded that this famous fishing site was inhabited and continuously occupied for at least 9,000 years. According

to Chance (1986:42) large delegations of visiting tribes, which included other Salish and non-Salish speaking indigenous groups, commenced to gather during the summer months at Kettle Falls:

> Besides the 700 to 1,000 Colvilles and 300 or so Lakes, the Kalispels also came in large numbers…Other tribes that sent representatives in great regularity were the Okanagan, San Poil**,** Spokan, Chewelah, and the Kutenai. Smaller numbers came from the Columbia, Similkameen, Flathead, Coeur d'Alene, Palus, Nez Perce, Piscous, Methowy**,** and Shushwap tribes. August was the favorite time to come, after the Colvilles and their closer allies had had the fishery more or less to themselves for almost six weeks…As many as two to three thousand lodges were observed at the fishery in the last century, and through the season three to five thousand people would have been present.

With the five distinct salmon species that migrated to Kettle Falls it became necessary for the *Syilx* to develop ingenious methods for procuring large amounts of salmon during the seasonal summer runs. David Chance (1973:20) identifies a number of traditional methods developed by the Okanagan, "Salmon were gaffed, speared, caught in dip-nets, weir traps, and in large U-shaped baskets that were suspended below the falls." The methods used for the procurement of this important subsistence and trade item varied depending on the location of the fishing site.

Rivers such as the Okanagan, Methow and Sanpoil, and the smaller spawning streams allowed the building of weirs to catch salmon, suckers and salmon trout (Chance 1973:18). David Chance (1986:35) notes that after the Kettle Falls first fish ceremony, the Salmon Chief instructed the strategic placement of J-shaped willow baskets in order to catch the jumping salmon as they attempted to traverse the falls.

A Jesuit missionary, Pierre Jean DeSmet, gives a 1840s eyewitness account of the fishing methods employed by the Indians at the Kettle Falls fishery:

> The basket is made of willow, from fifteen to twenty feet long, five or six wide, and about four feet deep, with a high back upon one side, which is designed to rise above the surface of the water. A stick of timber is firmly anchored in the rocks below the falls, extending out over the stream twenty or thirty feet. To this the basket is suspended, and so far submerged as to leave the back just above the water upstream, while the opposite side is several inches below the surface of the water, and downstream. The ascending salmon rise up the side of the basket and spring into it, where they are held, their passage up being arrested by the high back; and, as they never turn their heads down the current they are retained securely. After the basket in this manner is well filled, a man descends into it and hands out the fish. Two hundred salmon, weighing from six to forty pounds each, have been caught in this way in a few hours. They are also speared in great numbers. It was a common occurrence…to take three thousand salmon in a day, since there was no limit to their numbers, and a whole band of Indians were engaged in the work. The fish were divided equally among the women each day, the number of females in each family forming the basis of distribution (Chance 1986:38-39).

Lucullus McWhorter posed a question to Mourning Dove (Christine Quintasket), an early 20th century writer of *Syilx* descent, in regards to whether the chinook salmon (the largest of the five species) was able to get past the heights of Kettle Falls. Mourning Dove (1930:1, letter dated June 3) gave this response:

> You asked about the Salmon getting up the falls on the Columbia River at Kettle Falls. The salmon jump and try to get over these falls, is why the Indians catch them in nets and on hooks or spears. Some get over in high water, but they seem to be a smaller breed, that I am sure of, because the Indians years ago used to catch them on the Kettle river, which branches off the Columbia about a mile or two above the Kettle Falls. I am sure that some of the larger Chinook salmon get over too. But I don't think that this follows the smaller river like the smaller breed of salmon. But I have never known the Indians to catch any of the salmon in the Columbia above the Kettle Falls, unless it was up the Kettle River, as far as Cascade Falls, B.C., about thirty or more miles due north, where there was a high falls, which the white people blasted in the late years, and put in a Power Plant here at this site…The salmon come up the Okanogan River too, they are somewhat smaller than the Chinook too, and still another breed that are smaller than the Keller salmon, and they come up about the later part of August and into middle or end of September. They generally spawn closer to Oroville and in Osoyoos Lake, and the narrows of the lake is a favorite

> spawning grounds. They are red till they spawn then they turn white and die, but I don't think that they all die that is impossible, because we don't find very many dead salmon in comparison to what is in the waters.

The Okanagan River is a major tributary to the mighty Columbia River and provided important spawning grounds for salmon, most notably the large runs of sockeye (Webber 1999:19; Brown 1911:22). The salmon indisputably provided a substantial portion of the subsistence needs of the *Syilx* peoples and also served as an important trade commodity. Three species of salmon were recorded as migrating up the Okanagan River from May to November, the chinook, blueback or sockeye, and the coho (Post 1938:12).

Randy Bouchard and Dorothy Kennedy (1984:31) conducted an interview with Sarah Bone McCraigie, a *Syilx* elder originally a member of the Penticton Indian Band, wherein she recalled that, "It had been about 40 years since Indians were last camping around Oroville and fishing in the Okanagan River, and about 65 years since she last saw Indian people fishing along the lower Similkameen River immediately below the falls where the salmon spawned."

Sarah McCraigie also identified the river area between the current town of Oroville and the spot where the Similkameen River meets the Okanagan River as being recognized as, "the headquarters for the salmon fishing in this district because the salmon spawned there" (Bouchard and Kennedy 1984:42,54).

The *Syilx* and neighboring tribes gathered and camped around Oroville during the annual summer runs of salmon especially during the August sockeye migration. Indians from Westbank, Vernon, Penticton, and Oliver in B.C., and from Inchelium and Spokane in Washington State made camps at the fishing site, temporarily increasing the population

upwards to 4,000 inhabitants during the sockeye runs (Bouchard and Kennedy 1984:25,30; Webber 1999:24).

The Okanagan Falls region was under the political control of the *Syilx* living in the Penticton area and these would have been the northernmost groups to benefit from the salmon runs on the Okanagan River. Andrea Ernst (1999:15) contends that modern biologists believe that the precipitous Okanagan Falls did not allow any salmon whatsoever to traverse its heights and presumed that this is where the salmon migration ended. The indigenous *Syilx* people contend that the sockeye were able to jump the Okanagan Falls and continue their migration to the tributary creeks of Okanagan Lake.

According to an integrated government survey compiled by Bruce Shepherd (1996:2-3) included perspectives of local TEK advisors, Louise Gabriel and the Canadian Columbia River Intertribal Fisheries Commission, along with a WSK survey provided by the US Fish and Wildlife Service, these sources determined that the salmon were able to traverse the falls:

> The large salmon were able to leap the falls, while Kokanee were not able to. During early days the salmon were much larger (50cm) as compared to the current sockeye (20-25cm), evidence being old photo's. Heights of water around the eastern channel was 2.7 feet. 50cm large adult salmon can jump upwards of 4.6 feet. They (sockeye) could easily jump the falls.

The written narratives of European explorers revealed the abundance of flora and fauna that was present in the Interior Plateau during the early 19th century. During this era the rivers were full of the salmon during the various migrations throughout the spring, summer, and fall. The various ecosites provided a diverse habitat for the biotic life forms that flourished in this arid environment.

The *Syilx* communities that were spread across the expanses of this territory developed intimate relationships with all of the life forms within this region. These reciprocal human/land relationships are evident in the first food ceremonies and were continuously practiced despite the near extinguishments of many flora and fauna that the *Syilx* depended on for year round subsistence requirements.

Chapter 3 Early European Experiences and Perceptions of the Okanagan Environment

The first European contact in the Okanagan territory occurred in the early 19th century, approximately three hundred years after Christopher Columbus "discovered" the "New World." The earliest European written account of the ecosystem of the Interior Plateau region of the Columbia River basin can be found in the 1804-05 journals of Lewis & Clark. William Brown (1911:1) makes it clear that the Lewis & Clark expedition traveled down the Snake River and entered the Columbia River before continuing to the Pacific Ocean in the year 1805.

The next historically documented European explorer to enter the territory of the *Syilx* peoples was an employee of a fur trading company. It is Oral Bullard's (1968:67) contention that David Thompson, a geographer in the employ of the Northwest Company traveled from the headwaters of the Columbia River to its mouth at Astoria and is credited with being the first white man to come into direct contact with the Okanagan people. David Thompson and his men became lost after crossing the Rocky Mountains through Athabaska Pass in January 1810 while attempting to reach the mouth of the Columbia River and were forced to spend the remainder of the winter in this region before continuing on their journey (Gray 1937:35; Bancroft 1886:172).

According to the journals of David Thompson, the first European contact with the indigenous Okanagan people occurred in the latter part of May or the first of June 1811 at the fishing station located at Kettle Falls (Brown 1911:172). Mourning Dove describes the Thompson expedition's first encounter with the Okanagan at the famous fishing site, Kettle Falls:

> The first white explorer to enter our country was David Thompson of the Northwest Trading Company of Montreal, a rival in the fur trade with the great Hudson's Bay Company. Thompson came down the Columbia River in the late spring of 1811 and arrived at the falls [Kettle Falls] while people were busy with the Chinook/king salmon run. He saw traps lining both sides of the river. My great-grandfather, Chief *See-whehl-ken*, welcomed this small party of travelers, including several half-breeds, which my people had never seen before. As a good host, he gave them the finest salmon (Miller 1990:149).

It is William Compton Brown's (1911:5) contention that:

> David Thompson's expedition continued their journey down the Columbia on July 3, 1811 and his next journal entry was on July 6, 1811 as they described the area that was noted by historians as the greater Wenatchee area, therefore the Thompson expedition had to have passed the mouth of the Okanogan River either on the 4th or 5th of July, 1811.

According to Thompson's own journal entry dated the 6th of July he states, "last course fine view and see high woody mountains of the Oachenawawgan River" (Norris 1929:28). Although David Thompson was credited as being the first white man to reach the mouth of the Okanagan River he made no mention in journal entries of contact with the Okanagan after his brief stop at the mouth of the Sanpoil River, as he continued down the Columbia River to Fort Astoria (Brown 1911:1).

Soon after David Thompson's arrival at Fort Astoria another expedition departed to explore and establish a trading center somewhere on the Columbia River. The David Stuart expedition, which included Alexander Ross, Francis Pillette, Donald McLellan and Ovide de Montigny left Astoria and began a journey up the Columbia River in July 1811 (Bancroft 1886:173). David Thompson did not give a detailed description of the region's ecosystems during his initial descent of the Columbia River, yet he did map and name important landmarks and rivers that they encountered. These place names appear in the records of the 1811 David Stuart expedition also, which stopped at the "Piskowish River"

(the Wenatchee River), first referenced in the Thompson journals, and traded with the Indians that occupied this region (Brown 1911:13).

While in the employ of the Pacific Fur Company, fur trader, Ross Cox's duties at Fort Okanogan required him to travel about the territory and on a trip to the Kettle Falls area he describes the flora and fauna:

> The plains are covered with a short kind of grass, mixed with prickly pears, wormwood, and tufts of long coarse grass from three to four feet high…the principal animals are horses, small deer, prairie wolves, red foxes, badgers, polecats, hares, and dogs. Otters are sometimes seen; but the great staple animal, the beaver, is strange to this district (Cox 1957:258).[1]

It is clear that the *Syilx* became, unknowingly, willing participants in the early degradation of their local ecosystems. As noted previously, beaver were by no means "strange" to the Okanagan region prior to the onset of the fur trade that began soon after first contact in 1811. Cecil Dryden (1949:125) later confirmed Cox's report that beaver had become scarce in the Okanagan by 1816. The co-existing relationship between the *Syilx* and their environment became compromised and slowly began to erode as the *Syilx* became pressured to adapt their subsistence economy to an introduced foreign market-based economy.

Trade

The *Syilx* were not an agricultural society and relied on harvesting the vast amounts of seasonal flora and fauna within their traditional territories for subsistence purposes and trading extensively to disburse surplus goods. *Syilx* trade items included dried salmon, deer-nets, skin bags, dressed moose-skin, scent, paint or red-ochre, horses,

[1] I estimate the time period of Cox's statement as 1812 since he came into the employ of the Pacific Fur Company in 1811.

bark made into twine for snares, bone or horn beads, arrow points, roots, wild hemp and berries (Scheuerman 1982:18-19; Hudson1996:25; Mellows 1990:91). The *Syilx* were recognized as the chief traders amongst the plateau tribes as their networks extended beyond the territories of bordering tribal peoples (Thompson 1985:186,188). According to V. W. Walters (1938:74), Scheuerman (1982:18), and Brown (1961:24), the *Syilx* trading networks reached as far south as the Walula (Snake River confluence), to the Thompson country in the north, to the west the Pacific Coast and extended to the Plains country in the east.

The introduction of a new trade economy based on fur trapping had immediate negative effects on the ecosystems within the *Syilx* territory and on *Syilx* social and cultural practices. The stimulus and rewards of the new economy prompted the *Syilx* to shift consciousness and priorities to accommodate their reliance on new trade items. Carol Abernathy Mellows (1990:99) determines that the economy of the indigenous Okanagan forever changed with the advent of commodity trade goods that included guns and ammunition, as they became essential items in order to defend and maintain control of their territory from outsider incursions.

As a result of a radical shift in trade practices many formerly abundant game animals became scarce. Peter Carstens (1991:34, 37) mentions the fact that by the 1820s the fur trade in this region was in full swing and that the beaver and other animals, including deer, were being depleted, this all being a direct consequence of meeting the needs and demands of the fur trade.

Since first contact in 1811, the next seven decades reflected notable changes within the ecosystems of the Interior Plateau. David Chance (1986:77) mentions that

according to Hudson's Bay Company recorders stationed at Fort Colville that, "by the year 1830 there were no elk in the vicinity and deer were scarce." The elk had disappeared, the beaver were nearly extirpated, and the large packs of wolves, which at one time were counted as running in packs of one hundred, were now reduced to packs of twenty during this same period.

Peter Carstens (1991:19, 25) however, notes that during this period, "The Okanagan was rich in elk, deer, sheep, bear, prairie chicken, grouse, water fowl, and other game while the lakes teemed with fish…and by the 1860s there were no elk left in the district."

Louise Gabriel (1999:39), a *Syilx* elder living on the Penticton Indian Reserve adamantly stated that elk were plentiful before the arrival of the "*suma"* (white man). Doug Hudson (1980:7) interviewed a Westbank elder, Mrs. Lizzie Lindley and during the course of the interview asked if there were elk and deer in the Westbank vicinity? Mrs. Lindley replied:

> Oh yes, that place they called "a lot of shit" is the droppings of elk. The elk used to stay in this area all winter. This is located near where Millie and Henry Jack's house is today. *Sntulcatn* that's what that means, "a lot of deer." There used to be so many deer that a person could kill one or two anytime they need their next supply replenished. This location is in the Bear Creek area on the outside of the Okanagan Lake across from Kelowna, B.C.

Mourning Dove (1930:2, letter dated May 30), while living in Omak, Washington wrote a letter to Lucullus McWhorter and indicated the severity of the reduction in numbers of game animals in the southern regions:

> I never hunted big game but I can shoot good with a rifle, and have killed much small game. I can handle a revolver as good as an ordinary Indian, in fact I have won shooting targets with them, with white men in fact too. Of course that was when I lived in Canada where game was plentifully

> [sic] and we went on annual fall hunts. In Omak there are no game to kill but groundhogs, and I don't eat them, so never kill them. I never kill game nor fish for sport, only for food.

In order to provide food during the middle of the 19th century the for the fur trading companies and the gold miners the large and small game populations were severely impacted by over-hunting. The over indulgence of hunting and trapping adversely impacted the ecosystems but the introduction of foreign herbivores into the valley soon had detrimental impacts on the once abundant grass supplies.

Cattle

It is Margaret Ormsby's (1931:46) contention that, "the first herd of cattle were introduced into the Okanagan Valley by the Oblate priests at the L'Anse au Sable mission, soon after they established their mission in 1859." The introduction of foreign domestic grazing animals into this region created a competitive situation over the rich tall grasses found in this region. The lush bunchgrass that formerly provided adequate sustenance for the indigenous herbivores, such as, deer, elk, moose, mountain sheep, mountain goats, wild horses, began to disappear. According to government records in approximately thirty years there were nearly 20,000 cattle scattered along the Okanagan Trail that extended from Osoyoos to Spallumcheen and in the following decade the luxuriant growth of tall grasses was no longer present **(**Ormsby 1931:54,57; Harris *et al.* 1989:3).

Rangelands in the southern Okanagan territory were soon taken over by cattle and sheep and it stands to reason that their presence caused severe ecological damage to these once bountiful grasslands. It has been argued by Robert H. Ruby and John Brown

(1965:45) that the grasslands found along the banks of the Columbia and Okanagan Rivers and the Okanagan highlands were described by white men as being, “the best and finest country on earth.”

Richard Steele (1904:509) noted that prior to 1901 cattle had exclusive access to this environment; this changed with the injection of 50,000 sheep in this area. A state and county rangeland assessment conducted in 1902 revealed that 2,500 head of cattle, 5,000 head of horses, and 20,000 sheep were recorded as ranging in the area east of the Okanagan River; this area encompasses only a small portion of the southern territory of the Okanagan (Steele 1904:509-510). By the early 1900s irrigated agriculture had firmly established itself in the entirety of the Okanagan Valley, and without a doubt the changes, such as constructing dams for irrigation and flood control purposes on the river and lake systems in the Okanagan had taken an immense toll on the flora and fauna in this arid sensitive region of Canada (Dobson 1999:19; Thomsom 1985:332).

Commercialization of salmon

The Pacific Northwest region of the United States also fell victim to a severe loss of salmon and salmon habitat during the late nineteenth century. Jeannette Armstrong (1998:183) points out the negative impacts on the Columbia River salmon runs by the introduction of commercial fisheries and canning operations, “It reveals the grim reality of ocean and river fishing and canning operations’ over-harvesting and rapid-destruction of whole salmon runs in the earlier half of the century.”

Charles F. Wilkinson (1992:188) divulges that during the late nineteenth century, administrative officials of U.S. Bureau of Fisheries were allowing unprecedented amounts of salmon (43 million pounds) to be commercially harvested in order to support

the forty canneries located on the lower Columbia River. Commercial methods of procuring these large runs of Columbia River salmon stocks allowed huge quantities of salmon to be harvested; these included gill nets, traps, weirs, hooks, spears, the mechanical fish wheel and even dynamite **(**Wilkinson 1992:189).

The negative impacts of over-harvesting by the commercial fishermen on the Lower Columbia River resulted in the rapid depletion of the Columbia River salmon stocks. Marc Reisner and Sarah Bates (1990:36) contend that the Columbia River was previously recognized as being the destination of the most prolific salmon migrations in the world. The negative repercussions of political actions taken by Washington state authorities to save a majority of the remaining salmon stocks for recreational sports fishing reverberate throughout the indigenous communities of the Interior Plateau. Edgar Cahn (1969:3) points out a number of factors that led to the economic and social disparities of indigenous peoples inhabiting regions of the Columbia River:

> In the State of Washington, Indians who once were prosperous now go hungry because the State will not allow them to fish. The State of Washington spends up to $2000 per salmon to protect these fish for sportsmen and commercial fisheries, which catch over 90 per cent of the salmon. But it refuses to permit the Indians, who catch less than 10 per cent of the salmon, to continue to fish. The right to fish forever was promised to the Indians by the United States Government in exchange for taking away Indians' land.

The social, cultural, and economic losses to the *Syilx* peoples could be attributed to the rapid changes in the ecosystems and the near annihilation of the once prolific salmon runs that entered into their territorial waters. It was determined by the Government of Canada (1973:219) that approximately 19,000 sockeye salmon were returning to the Okanagan River to spawn and that they were an integral part of local

Indian ceremonial practices. The Columbia River salmon populations were reduced by late 19th century commercial fishing on the lower Columbia River but since the construction of the numerous dams the salmon populations have been further reduced by a conservative figure of 80 percent (Reisner and Bates 1990:36).

Pre-contact *Syilx* societies that occupied the Interior Plateau region of the Pacific Northwest were guided by ethical principles that had been practiced for thousands of years. This human/land relationship underwent a radical transformation as the Europeans introduced methods of colonization that were based on the potential economic profits from resource exploitation. The post-contact colonizing efforts in this region by the Europeans were perpetuated by Western mechanistic concepts of man's domination of nature and they also needed to clarify the question of ownership. Settler populations and their government accomplished this feat by displacing indigenous societies while appropriating and gaining control of lands and resources.

Chapter 4 Policies, Treaties and Supreme Court Decisions

Western expansion in the United States during the late 18th and the beginning of the 19th centuries prompted the eastern-based government to create and implement a series of policies and laws in order to maintain control of lands and resources, including water, in the arid Far West. During the westward migration the pioneers came across valuable lands and minerals and a question of ownership of these valuable resources became an issue that needed clarification. In Stuart Udall's (1963:21) opinion, as a response to the situation out west, "The federal government legislated the 1785 Northwest Ordinance and the Land Ordinance which stipulated that the unoccupied lands and the resources found on these lands, would be owned by all the people under this public domain policy." Malcolm J. Rohrbough (1998:11) has stated that these ordinances, "reserved for the U.S. government one-third of the gold, silver, lead, or copper found in the public domain."

The migration of settlers into the American Far West took them into an environment that became noticeably more arid than the eastern States. Scarce water supplies dictated the need for the development of water management plans to accommodate the growing number of western water users. Limited supplies of water led to laws that allowed for inter-basin transfers of water and the adoption of the principle of beneficial use (Johnson 1971:4). The principle of beneficial use simply meant that the water must be used and cannot be reserved for future use.

Very early in the 19th century the doctrine of prior appropriation was formalized, replacing the common law principles embedded in English riparian doctrine (Getches 1984:82-86). Under the prior appropriation doctrine, priority rights to water were given

to the first person or party licensed to use the water and these rights were not based specifically on ownership of lands adjacent to the water source (Reisner and Bates 1990:29-30). A new and unique legal framework thus emerged in the arid West that allowed non-riparian users to divert waters from streams and rivers (Worster 1985:01).

The adoption of these new doctrines in the western United States occurred first in the Utah Territory where, by the 1850s, the Mormons were the majority settler population. In response to water shortages, according to Kenneth Wilson (1989:18-19), the government of the Utah Territory established the Old Utah Code of 1852, making water and other natural resources public property and concurrently creating a sub-departmental executive board to regulate and manage these resources. Subsequent settlement in Utah by non-Mormons, however, led to the emergence of opposing views on water distribution and ownership, since under Utah's territorial laws and later its state laws, "public ownership," meant ownership by Mormon interests. It is Donald Worster's (1985:82) position that the state of Utah changed its laws in 1880, allowing private individuals to own water resources, because of the threat of federal government intervention in state affairs in respect to the rights of non-Mormon residents.

The state of Wyoming, by contrast, was not confronted with similar social and political disparities. According to Charles F. Wilkinson (1992:239), Wyoming's 1890 political strategy was to enact laws that would inhibit water usage by private users by legally defining water as being property of the state. The legal principles instituted first in the Old Utah Code and then by the State of Wyoming established the framework on which other western states maintained control of their limited water supplies and eventually these principles gravitated north to the province of British Columbia**.**

Margaret Ormsby (1931:79-80) outlines the manner in which two policies directly impacted water use in the province and are reflective of measures taken in the Old Utah Code of 1852:

> These records were taken out under the first Land Ordinance of 1860, which permitted the diversion of water for agricultural and other purposes. It also provided that priority of record should give priority of right, and a man should be given the right to construct a ditch across another man's land on the payment of damages. These are the basic principles of all laws since that date.
>
> It was found that there was no case law to fall back upon but the Common Law of England, and the rights of a bank-owner as defined therein. This gave the latter the right to use water flowing past his land. The laws of British Columbia, on the other hand, gave the owner only the right to divert water from a stream that did not touch his land. British Columbia, therefore, had to evolve during a period of 60 years, a system of water legislation and administration suited to its own conditions.
>
> Very often mistakes were made. For example, the Land Act Amendment of 1886, gave the holder of a first record on a stream a monopoly of the water if he had sufficient land. The rights of those who later received records were therefore threatened.

In addition, the province of British Columbia followed the legal principles established in the American Far West by creating sub-departmental agencies that managed the provinces water that benefited miner and settler interests, while ignoring indigenous interests.

Indian water rights

The United States federal government and its sub-agencies are in control of large amounts of water that are held in perpetuity and trust status for Indian tribes across the western states. John Shurts (2000:18) contends that the settler populations in the state of Montana became dependent on unrestricted access to water sources prior to its flowing

through federal Indian reservations and in their own judgment perceived Indian lands and water resources as not being used appropriately.

A legal controversy arose between non-treaty water users and treaty Indians that forced an adjudicated decision on whether or not Indians maintained reserved rights to water prior to the advent of treaties between the United States government and Indian tribes. L. Ward Bannister (1915:281) acknowledges that the answer to this legal predicament came in the 1908 U.S. Supreme Court decision *Winters v. United States* that determined treaty rights granted regulatory powers to the federal government over these water resources. The 1908 decision set a legal precedent that clearly affirmed that Indian reserved rights existed before the treaty era, therefore establishing Indian priority rights over settler riparian rights, as it existed in the English common law tradition. Donald Worster (1985:298) and David F. Getches (1984:291-295, 300, 305-311) interpret the Supreme Court decision as giving tribes an unlimited claim on waters that originate or flow through Indian reservations and as requiring non-treaty individuals to buy the right to divert water. Edward S. Cahn (1969:100) has similarly stated that, "The Winters Doctrine holds that when the Indians gave up land to the United States treaties, they retained rights to water from that land to irrigate land which they kept. The Solicitor of the Department of the Interior is charged with protecting the right for the Indians."

It became abundantly clear that non-treaty entities, such as individuals, corporate or state authorities, had to seek congressional approval before a tribe could transfer its interests in real property (Reisner and Bates 1990:95). This constitutional guarantee insured for Indian water users that their reserved rights were to be acknowledged and

protected under federal trust status based on the fact that long-term historical access to these resources were identified and included in the treaty processes.

The *Winters* decision, however, was concluded after other western states and territorial governments had already assumed authority over the management of state water resources. Prior to the Winters Doctrine, Indian water rights were determined to be non-existent and therefore never legally recognized by territorial governments as they transitioned into the states of California, Utah, and Wyoming. The legal strategies of the governments of western states and Canada, according to Ardith Walkem (Walkem *et al.* 2004:5-7) and Lloyd Burton (1991:38, 43, 59) were to ignore the existence of Indian reserved water rights and land and resource rights since acknowledgement of these rights would weaken existing provincial and state resource use laws.

Lloyd Burton (1991:15) notes that the tactic of ignoring Supreme Court legal decisions has a long history dating back to the administration of President Andrew Jackson in the early 20th century. Jackson opposed the rulings of Chief Justice John Marshall, known as the Marshall trilogy, particularly the 1932 *Worchester* decision. President Jackson's opposition specifically revolved around the tribes seeking sovereign nation status independent of the United States and with states being barred from exercising jurisdiction over Indian lands and resources (Burton 1991:32).

It has been a full century since the *Winters* decision and lingering legal issues continue to impact domestic and global water users as minimal or unrestricted access to this precious natural resource remain legally protected by federally recognized treaty rights. Marc Reisner and Sarah Bates (1990:91) recognize that the governments of western states, the U.S. Congress and several western Indian tribes are currently

evaluating potential legal weaknesses in the *Winters* decision, as possibilities of participating in domestic and international water markets are fast becoming a reality.

The impact of international water agreements on Indian water rights

Disputes over shared international waters along the 49th parallel led to the negotiation of an international treaty agreement between the governments of Canada and the United States. In 1909 the governments of the two countries ratified the Boundary Waters Treaty that was formulated on two fundamental governing tenets: 1) a set of principles to govern diversions and water uses; 2) the establishment of the International Joint Commission (IJC) to oversee those principles (Miller 1988:76).

Canadians played a key role in the development of the 1909 Boundary Waters Treaty as they were threatened with proposed United States water developments that would affect shared transboundary waters. John Shurts (2000:77) details the Canadians' concerns and outlines their responses to U.S. water development proposals:

> Unhappy particularly about the plan to divert waters of the Saint Mary River (which flowed into and stayed in Canada) into the Milk River (which flowed into Canada briefly and then back to Montana), Canadians threatened to divert large amounts of water from the Milk River for their own development if the United States government and the Montanans tried to develop the comprehensive water project without consulting and sharing water with Canada.

The 1909 Boundary Waters Treaty was thus intended to overcome innumerable disputes that were constantly arising between the two countries (Holm 1988:77; Keenleyside and Brown 1952:397). John Shurts (2000:78) further notes that political concerns and pressure from United States and Canadian settlers to remedy this water

uncertainty prompted the negotiators to include specific wording in the Treaty to address the Saint Mary River-Milk River controversy.

The 1909 Treaty and the principle of adjudicating disputes through the IJC reinforced the tendency of the Crown to ignore indigenous proprietary interests in water, thus violating the Crown's fiduciary responsibility towards Indigenous Nations of Canada. The Dominion of Canada entered into the 1909 Treaty negotiation process without consultation with the Indian tribes that were definitive stakeholders in transboundary water resources. The *Syilx*, for instance, were never asked to participate in the negotiation process despite having four transboundary rivers within their traditional territory (Grabert 1970:xii). As J.C. Day and Frank Quinn (1992:24) have stated:

> The reserved rights over water resources are assumed to be in the control of the federal government of Canada as Indian Nations across the country are not viewed by any government as being major stakeholders of this resource.

The 1909 treaty also further complicated the manner in which the legislative and judicial branches of state and federal institutions in the United States dealt with Indian priority rights. Carl Waldman (1994:28) and Donald Fixico (2004:383) identify the contemporary Bureau of Indian Affairs (BIA) as governmental managers of the federal trust responsibility in the United States delegated with authority as prime controller, distributor and interpreter of these treaty rights. Edward Cahn (1969:5) maintains that the BIA was initially created as a division of the War Department in 1843 and remained under its jurisdiction until 1849 when it was transferred to the Department of Interior. The early Indian policies instituted by the U.S. War Department were intent on the extermination, acculturation or assimilation of the Indian people that occupied territories south of the 49th parallel.

The natural resource policies that the federal government enacted are based on a shared responsibility that forfeited immense regulatory powers to the provinces. J.C. Day and Frank Quinn (1992:23-24) reflect on the jurisdictional issues affecting water rights in Canada**:**

> Canada is different from most countries around the globe in that our national government is not the primary manager of water or most other natural resources. That role belongs to the provinces, according to the jurisdictional powers conferred in the Constitution Act…The provincial governments have proprietory rights as owners of the resources within their borders, as well as legislative authority over developments not reserved for the federal government….Since virtually all existing diversions in Canada have been implemented for one or another of these purposes within provincial boundaries, they are governed mainly by provincial laws and institutions….Federal proprietory rights also extend, to national parks and Indian reserves south of the 60N….the federal government has legislative power over extraprovincial undertakings, and in the conduct of foreign relations, including trade and commerce and treaty-making, the latter having great significance for developments affecting Canada-United States boundary water.

In Canada, the federal government by its participation in a treaty process with the United States, set a precedent by asserting federal authority over shared international water resources and while doing so placed Indian and provincial water rights in jeopardy. Besides commoditizing Canada's fresh water resources nearly a century ago, the treaty created a state of jurisdictional uncertainty between indigenous peoples and provincial authorities. This jurisdictional uncertainty allows little if any legal recourse for Indian Nations to protect the quality or quantity of the water within reserve boundaries, much less within their extended traditional territories.

Rights over water within the boundaries of the individual Canadian provinces became severely compromised as federal authorities continued to assert treaty policies that the provinces were forced to accept. The province of British Columbia asserted

policies that up until that time were not readily accepted in other Canadian provinces solely on the premise of protecting settler and miner interests to divert water. Donald Smith (1990:2) details measures that provincial authorities enacted at the provincial level to gain access to provincial waters:

> The common law of England, as it existed at November 19, 1858, applied to the colony of British Columbia and remains in force today except to the extent that it has been altered by competent legislation…Briefly stated, the common law did not recognize any ownership of flowing water…A riparian owner's use of the water was subject to the rights of lower riparians to have the water reach their lands undiminished in quantity or quality…The first change in the common law came in response to the needs of gold miners in the colony. Water was an essential part of the mining process, but the miners could claim no right to use water without owning the adjacent land. An Ordinance respecting gold mining was proclaimed by Governor Douglas in 1859. Rules made pursuant to the Ordinance allowed miners to apply to the Gold Commissioner for a special license to divert water for mining privileges. For many years thereafter the standard unit of measurement for all water licenses was the 'miner's inch'. Land Ordinance Act of 1865-did not allow for the granting of a water record for Indian lands since the statutory scheme was only designed for "pre-emptors" (i.e. homesteaders), of Crown land. Indians were not allowed to pre-empt land except under special permission.

The Joint Indian Reserve Commission that was active from 1876 to 1878 recognized indigenous priority rights to water resources within the Penticton Indian Reserve. However, settler water licenses were given priority on all streams that flowed through reserve lands, despite the commission's recognition of existing water rights. In their Minutes of Decision dated 24 May 1877, the Commission clearly established, "The prior right of these Indians as the oldest owners occupiers of the soil to all the water which they require or may require for irrigation or other purposes from…water courses within or flowing through or touching these reserves…" (As cited in Diana Jolly 1999:13). Derek Smith (1975:185) contends that priority rights are connected to land title and this is a subject area that needs legal definition although it has been determined

that only the federal Minister (DIA) can give consent for any alterations to any treaty or provisions under the Indian Act.

Birth of the "regulatory state"

Charles Reich (1970:8) suggests that a policy shift occurred in the United States such that the legislative powers granted to the U.S. Congress were, over time, delegated to federal and state administrative agencies that tend to ignore the interests of public stakeholders and the general public. The new policy shift of 1902 was officially recognized as a National Policy Directive that according to Donald Pisani (1996:190) was intended to take control away from individual interests for the greater good of the public. Stephen Krech III (1999:25) lists the following principles embedded in Gifford Pinchot's conservation policies as instituted under the 1910 Theodore Roosevelt administration:

> The first principle was development, the use of the natural resources now existing on this continent for the benefit of the people who live here now. The second was, the prevention of waste, and the third, that natural resources must be developed and preserved for the benefit of the many, and not merely for the profit of a few.

President Theodore Roosevelt appointed Gifford Pinchot as his first forestry chief during his first administration and it is Stuart Udall's (1963:103, 106) contention that it was Pinchot who framed most of the ideas that became Roosevelt's conservation program. Gifford Pinchot was very influential in other major policy decisions instituted by the Roosevelt administrations. Donald Pisani (1996:197) contends that these standards set in place regulatory measures for domination and control:

> The twentieth century gave birth to the regulatory state. National forests and parks were created, administrative control over waters was established, and the ethic of 'wise use' was instituted.

Pinchot's wise use ethic and new regulations did little to deter the negative environmental impacts that were occurring during his time. Robert Harrington (1990:219) readily identifies Gifford Pinchot's position as definitively prioritizing the interests of humans whose intent was to assert their domination over nature for economic gains.

In the early part of the 19th century watershed lands were removed from private ownership through legislation that afterwards defined these lands as protected public reserves. The Weeks Law of 1911, one of the enactments that established control and management of watersheds, was based on the idea that private owners did not have the ways or means to implement effective flood control measures (Baker *et al* 2002:37). This may be the first case in which water was indisputably defined and legally treated as a good or commodity to be controlled and manipulated by the U.S. Congress. The Weeks law further acknowledged that poorly managed watersheds could increase the likelihood of flood flows and produce damage within the watershed areas.

The New Deal and the damming of the Columbia

The economic depression that plagued the United States during the 1930s called for radical solutions, and led in 1932 to the defeat of Herbert Hoover at the hands of Franklin D. Roosevelt. Roosevelt campaigned on the basis of a recovery package that became known as the New Deal Policy and was later credited with stimulating and revitalizing the US economy. Paul K. Conklin (1972:22) posits Roosevelt's New Deal as reinforcing a dramatic shift in the manner in which legislative acts and executive orders dealt with public interest concerns. Charles A. Reich (1970:48) identifies the conscious

shifts away from the rights of an individual to models of public interest policy that redistributed power within economic and political sectors:

> What the New Deal did was to create, in furtherance of these objectives, and to carry out its reforms, a new public state, matching in size and power the private Corporate State. For each piece of regulatory legislation a large, specialized government agency was established, and at the same time the regular executive departments of the government were greatly expanded…The Supreme Court gave the government sweeping new constitutional authority—virtually a free hand, in place of the original constitutional idea of expressly limited powers. The dominating concept was that all private activity, individual or corporate, was subject to restriction, licensing, or regulation "in the public interest," meaning, for reasons based on the good of the whole nation.

The legislative and executive branches of the United States government were given freedoms to institute national public interest policies that were intent on restoring the national economy. The Pacific Northwest became a focus area primarily because of the potential of energy development on the Columbia River. Oral Bullard (1968:45) contends that despite conservationists' objections to the building of multiple dams on the Columbia River, the objectives of Roosevelt's regional master plan were viewed by local residents as the stimulus needed for economic recovery.

Despite warnings from special interest groups, the first dam (Rock Island) built on the Columbia River was completed in 1933 by the Army Corps of Engineers and financed entirely by a non-federal entity, the Chelan County Public Utility District (Harden 1996:221). The Columbia River Salmon populations had undergone severe depletions by the 1930s, but still numbered 16 million spawners before the first dam was completed; these numbers dwindled significantly after completion of the dam (Glavin 1996:10-11). According to Robert Glennon (2002:127, 132) and Blaine Harden

(1996:225-226), the most detrimental impacts of dams in regards to salmon are as follows:

1) Dams block adult salmon from returning to their spawning grounds
2) Juvenile smolts face a high mortality rate as they migrate to the ocean.
3) Significant water diversions may raise the temperature of a river by several degrees, an amount that may profoundly change a salmon's behavior and adversely affect reproduction.

Donald Worster (1985:269) notes that the Bonneville Dam, completed in 1938, was built to serve two purposes: firstly to generate electricity; and secondly to operate as a navigational dock for barges on the lower Columbia River. The infrastructures of both Rock Island and Bonneville dams included fish ladders that hindered salmon but still allowed them to reach their upstream destinations. Construction on the Grand Coulee Dam project, which began in 1933, progressed without a plan to build a fish bypass system as officials of the Army Corps of Engineers were determined to maintain an uncompromising position that excluded fish ladders (Wilkinson 1992:196).

The blockage of salmon migration routes on the Columbia became a controversial issue and it was determined that the Corps' obstinate refusals to build fish bypass systems were based solely on monetary factors. Milo Bell, a bioengineer at the University of Washington and one of the leading authorities on dam design and salmon survival, served as consultant to the federal government on dam design in the Pacific Northwest. Bell revealed that finances were the main reason for not including fish ladders:

> There was no technical reason why a fish ladder could not have been built in the 1930s that would have allowed a very high percentage of salmon to climb around the dam…the more vexing bioengineering problem presented by a high dam like Grand Coulee is safe downstream passage of

> juveniles over the dam's spillways. But on this, too, the Bureau simply was not interested in conducting tests or spending money to design a dam that would keep salmon alive…The Bureau did not wish to spend any money on fish (quoted in Harden 1996:96).

Prior to the construction phase of the Grand Coulee Dam, millions of dollars had been promised by President Roosevelt for an intricate plan to irrigate the arid Columbia Basin region. The Bureau of Reclamation acknowledged that in 1933, President Roosevelt met with supporters of the Columbia Basin irrigation project and surprised them by going beyond the planner's financial requests to allocate $400 million for construction purposes (Linenberger 1998:4). Leonard Cantor (1970:26) proclaims that over the following twenty-year period the huge injection of "New Deal" dollars allowed the building of a complex irrigation distribution system in the Columbia basin that consisted of 288 miles of main canal, 1,623 miles of lateral canals and 735 miles of drains.

As a result of the economic stimulus projects within the Columbia River basin area the ecosystems have undergone significant changes that negatively impacted the region's biodiversity. For example, Oral Bullard (1968:20) and Blaine Harden (1996:106) noted that upon completion of the Grand Coulee Dam in 1941, at least 1,100 miles of salmon spawning grounds were totally destroyed, not to mention the flooding of thousands of acres of prime bottomlands by its backwaters.

During Roosevelt's "New Deal" era, The BIA's focus had shifted to a policy that, on paper, appeared intent on being more humane and instituting a reconciliation process with indigenous peoples. Wayne J. Stein (1998:77) makes the following statement regarding the intentions of the "New Deal" policies:

> Yet another redirection of federal Indian policy came with the election of Franklin D. Roosevelt in 1932 and, in the following years, the ushering in of new administrators. The leadership of John Collier, controversial Commissioner of the Bureau of Indian Affairs, brought a dramatic turnabout in all phases of Indian affairs. Collier ended the official policy of forced assimilation, to be replaced with approaches that encouraged tribes to develop their own governments. The New Deal strategy sought to free Native peoples to again take responsibility for the revitalization of their cultures. Nowhere was this altered direction more apparent than in the federal government's new educational policy for American Indians. Many boarding schools were closed or changed radically, and community day schools were built. Collier's policies can be given much credit for laying the groundwork for the rekindled spirit which today pervades American Indian homelands.

However, the negative impacts of the Columbia River dams on the social, economic and cultural institutions of the Salish peoples were never given appropriate consideration under Franklin D. Roosevelt's "New Deal." The Salish peoples that inhabited the Columbia River basin region were adversely affected when the dams began obstructing the migrations of the five distinct salmon runs. In a matter of months following the completion of the Grand Coulee Dam project the Okanagan tribes were deprived of their primary protein source. Marc De Villiers (2003:139) contends that, "The numbers of wild salmon returning to the Columbia River is less than 6 percent of what it had been before the dams were built." The *Syilx* that lived in close proximity of the Grand Coulee Dam immediately fell victim to an ecological crisis that created various social problems that included suicide and chronic alcoholism (Harden 1996:104-106).

The Columbia River Treaty

In order to meet the water storage needs in the mid-Columbia River region, the governments of the United States and Canada entered into another international treaty

agreement in 1961. Alfred G. Cuzan (1983:23) proposed that another major reason for the development of the Columbia River Treaty revolved around problems associated with unreliable water sources throughout the western regions of the United States. The remedy to these situations, the Columbia River Treaty, was signed in Washington, D.C., on 17 January 1961 and was ratified by the United States Senate in March of the same year, while the Canadian Parliament ratified the treaty in June 1964 (Government of Canada 1968:3).

Under the Columbia River Treaty, Canada was obligated to build a number of water storage facilities to meet the storage and hydro-generating requirements of the American dams south of the 49th parallel. The two governments along with representatives of B.C. Hydro and the Bonneville Power Administration also agreed to not engage in any diversions of the natural flows of the Columbia and Kootenay Rivers for a period of twenty years (Scott *et al* 1986:224-225).

The 1961 Columbia River Treaty favoured American users in a number of ways. The US was not required, for instance, to open spillways for downstream flood control purposes, and as a result they were able to retain sufficient water to supply downstream hydro-generating facilities during low flow periods. Any excess water released from the Canadian storage facilities could be stored behind the Grand Coulee Dam and then pumped to the Columbia Basin for its large irrigation project.

Each party to a treaty agreement should come away from the negotiation with benefits that contribute in some manner to their economic, social and political goals. John Krutilla (1967:v) sums up in a concise fashion, the intended and well-planned outcomes that economically benefited both countries at the expense of the environment:

> The Treaty provides the framework for one of the most far-reaching water development efforts in North America. Through its terms, the United States acquires large quantities of Canadian storage to meet certain power and flood control objectives, and Canada receives a share of the power produced at U.S. generating plants plus payment for its storage contribution toward flood damage reduction within U.S. borders. The terms also provide for a transboundary storage project, the dam site of which will be situated in the United States and the reservoir headwaters extending into British Columbia. The Treaty thus represents an outstanding example of international co-operation in river basin development.

There is little doubt that U.S. policy developers and government officials viewed the signing of this international agreement as a victory as it provided a framework for continued economic benefits and secured in perpetuity jurisdictional authority over water resources within Canadian political boundaries. J. Owen Saunders (1988:70-71) recognizes that the Canadian government, either through its inability to foresee shortcomings in this agreement or through outright negligence, proceeded with an agreement that fell far short of expected economic benefits to Canada and allowed the United States to become dependent on Canadian water sources.

According to James Huffman (1983:262), the principles written into the framework of the Columbia River Treaty benefit the United States at Canada's expense as there are no articles in any section that allow Canada to exert jurisdiction south of the 49th parallel. The intricacies of this agreement are complex but for the purposes of this inquiry there are two articles that have relevancy to jurisdictional and intervention issues.

The assertion of jurisdictional authority by the United States can be clearly seen in Section 1, Article XIII of the Treaty wherein it directly implies that Canada does not have the authority to dam or divert its own water resources without permission from the United States (Government of Canada 1964:18). Under Section 3, Article XVIII, it

clearly states that the United States may employ intervention measures if Canadian authorities cannot or will not remove the "effects" that cause "loss" to the United States (Government of Canada 1964:26). These Articles may have been included as precautionary terms as David H. Getches (1984:381) reveals that, "Canada threatened to divert Columbia River waters away from the U.S. if the U.S. dammed its part of the river and invoked the doctrine of absolute territorial sovereignty." Canadian officials may have used this threat as leverage for inclusion of downstream revenue sharing. Presumably, Canadian negotiators understood what was going on, but Canada decided to trade sovereignty for the economic benefits specified by the agreement.

The United States energy and resource policy developments in the Far West were focused on addressing the perceived economic needs of the general public and the assertion of federal authority over lands and resources. The non-indigenous water users in the Columbia River basin benefited immensely from the Columbia River Treaty as they were guaranteed a reliable and stable water source.

The Okanagan Basin Agreement

The Okanagan Valley is located in the southern British Columbia interior and despite abundant water sources it became necessary to begin diverting water in 1907 from a northern water basin (the Fraser) to supply the Vernon Irrigation District (Lasserre 2007:146). Strict water management programs in the Okanagan Valley became an imperative beginning in the early 20th century as competition over limited fresh water resources became a reality.

The arid environment along with the economic potential of recreational tourism, agriculture and the rapid growth of urban populations were factors that prompted the development, in 1974, of an agreement on management of intra-basin water resources (Government of Canada 1973). According to Timothy and Jonathan O'Riordan (1972:114) the purpose of the 1974 Canada-British Columbia Okanagan Basin Agreement was to, "Develop a comprehensive framework plan for the development and management of water resources for the social betterment and economic growth of the Okanagan Basin." In order to address the diverse concerns of water consumers a number of public interest groups were organized into citizen "task forces" with the responsibility to develop a valley–wide, consensus-based conservation plan that would benefit all water users (Government of Canada 1973:vii). Under this agreement irrigable agricultural lands were considered as available for permanent removal from agricultural use to meet future needs such as residential developments to accommodate the valley's growing population (Hall 1972:8; O'Riordan and O'Riordan 1972:114).

Representatives of local Indian band governments were not invited by any of the valley wide task forces to offer their perspectives or voice concerns over the valley's water management. The comprehensive study that contributed to the final drafting of the Agreement had one short reference to Indians wherein it was noted that 18,800 acres of reserve lands were considered suitable for agricultural purposes **(**Hall 1972:8).

The North American Free Trade Agreement (NAFTA)

Water management practices in the Okanagan Valley became further compromised with Canada's 1992 ratification of the North American Free Trade

Agreement (NAFTA) in which water was listed as a commoditized tradable 'good' (Gale 1995:111). According to Maude Barlow, Tony Clarke and the Council of Canadians (2002:17) there are three key provisions of NAFTA that place water at risk:

1) National Treatment stipulates that no country can 'discriminate' in favour of its own water users. This means that all NAFTA countries have equal rights to access each other's water for commercial purposes of any kind.
2) The Proportionality provisions mean a government of a NAFTA country cannot reduce or restrict the export of a resource to another NAFTA country once the exports have started. This means that once water exports have started, the tap can't be turned off, even if new evidence finds that they pose a threat to the environment.
3) "Investor State" provisions (NAFTA Chapter 11) give corporations the right to sue the government of a NAFTA country if legislation interferes with its ability to make profits.

Member countries of the World Trade Organization (WTO) and the General Agreement on Tariffs and Trade (GATT), under guarantees of international law, have also been granted the right to set up corporate investment initiatives within the signatory countries of NAFTA thus further compromising the sovereignty of Canada, Mexico, and the United States (Mayer 1998:44; Weintraub 1994:12).

Mel Clark and Don Gamble (1988:xi-xii, 6) raise a number of important points in relation to various NAFTA provisions that jeopardize Canadian sovereignty over its water resources:

> Water is most certainly included as a 'good' under the free trade agreement. This fact, coupled with the export restrictions and national

> treatment provisions of the deal, give the United States unprecedented and irreversible access rights to Canada's water resources….Under the terms of the free trade agreement, Canada's sovereignty over water resources has been fundamentally compromised. Once water exports start, whether in the form of bottles, tankers, canals, pipelines or major interbasin diversion schemes, Canada cannot "turn off the tap"….Canada has, for all practical purposes, relinquished its right to levy an export tax on water or any other good consumed in Canada.

NAFTA, however, offers international corporations, states and provinces rights that would not be available in the case of a treaty. Michael Keating (1986:195) profiles differences between agreements and treaties as legally defined by domestic and international law:

> Treaties in effect become domestic law, while agreements are only statements of intent and impose no legal requirements on business or lower levels of government. They can only be enforced by the passage of federal laws, where such laws do not conflict with provincial or states' rights. As a result the work done has been carried out unilaterally or under special agreements between the federal and national levels of government.

Under Keating's summation it is evident that in order for the governments of Canada, Mexico and the United States to enforce NAFTA provisions, they must enact laws that acknowledge and protect the existing rights of states and provinces. In the United States protectionist policies may already exist in the forms of peace treaties made between the executive and legislative branches of government and Indian tribes. Charles F. Wilkinson (1987:65) maintains that the legal and legislative status of the treaties have established certain rights afforded through constitutional provisions, such as the Treaty Clause and the Indian Commerce Clause,[2] and are binding orders of congressional and executive authority.

[2] David H. Getches. 1984. Reservation of water for Indian reservations is generally based on the Indian Commerce Clause, art. I, S 8, cl.3, granting Congress authority "to regulate Commerce…with Indian

However, with the ratification of NAFTA it became extremely difficult for indigenous peoples above and below the 49th parallel to exercise indigenous priority rights to water resources. Protectionist policies such as Chapter 11, a dispute resolution process, were framed into NAFTA with the clear intent to benefit global corporate entities belonging to member nations of the WTO and GATT. If Canada, Mexico and the United States collectively decide to withdraw from NAFTA and terminate this agreement it remains unclear whether international laws would enable WTO and GATT member countries to continue trade operations in North America.

The signatory countries of this tri-lateral trade agreement have economic and political reasons for maintaining its current status, as relinquishment would lead to a lengthy period of commodity import/export readjustments. Nevertheless, legal obligations under the agreement may prove difficult to terminate and it then becomes an issue of enduring the economic readjustment period. John Whalley and Roderick Hill (1985:15, 61) outline provisions of non-compliance included in the GATT that would benefit both the United States and Canada if they moved forward towards terminating NAFTA:

> A treaty is the form of agreement that many observers feel would be most difficult to alter later. It could be abrogated but this would require a more deliberate action by the United States, not a likely prospect given the widespread U.S. interests in Canada. A final question concerned the treatment of abrogation of any arrangement jointly entered into by the United States and Canada. One option might be to exclude unilateral abrogation altogether, and only allow dissolution of the agreement by mutual consent…Under GATT, non-compliance is accommodated through the ability of trading partners to withdraw concessions entered into. Thus, under this approach, if the United States were to withdraw from part of an agreement, Canada could also withdraw.

Tribes," but also may be based on the treaty power, art. II, S 2, cl.2, which is sometimes cited as authority for establishing Indian reservations. Pp. 296.

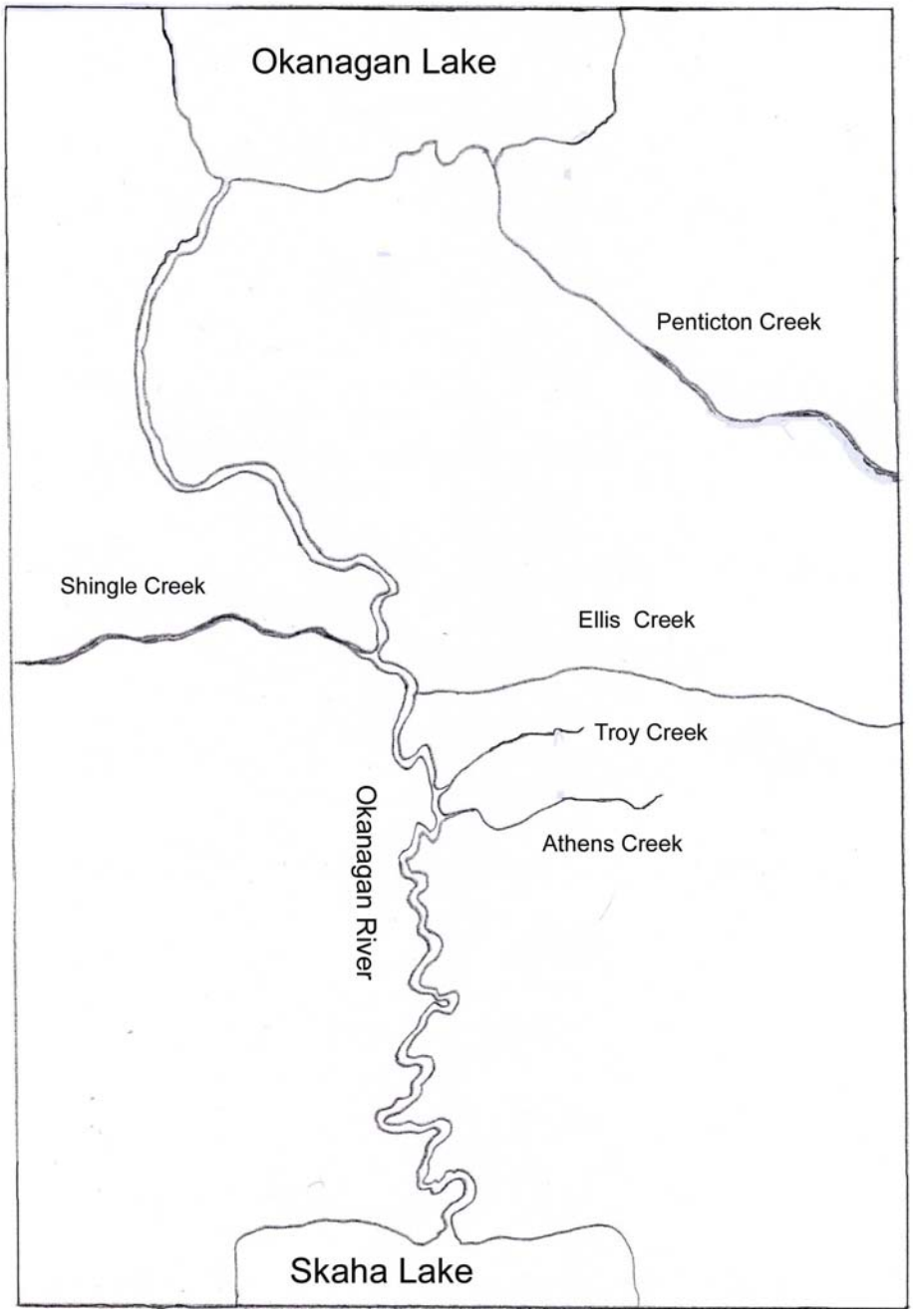
The preceding agreements, treaties, Supreme Court legal decisions, and economic development policies have led to negative impacts on the environment, the *Syilx* people, and other indigenous societies of the Interior Plateau. Many non-indigenous as well as indigenous peoples today view these same treaties, agreements and policies as potential threats to human beings and the environment as WTO and GATT member countries continue to develop their North American operations (Barlow and Clarke 2001:10). Nevertheless, embedded within these treaties and agreements are protectionist policies that address environmental concerns but have consistently been ignored despite advanced warnings by concerned government agencies such as the Senate Finance Committee (Mayer 1998:183-185; Hessing *et al* 2005:216, 218). In the Okanagan watershed quality fresh water supplies are in high demand to meet exponential needs associated with urban population growth, irrigation, tourism and recreation. Negative impacts on the environment and the social, cultural, economic and political institutions of the *Syilx* are often secondary concerns of local, provincial and federal authorities.

Chapter 5 Syilx Evidence Regarding Recent Social and Environmental Changes at Penticton, British Columbia

It is nearly two hundred years since the indigenous *Syilx* peoples first came into direct contact with Europeans, and during this time the ecosystems of the Interior Plateau region have undergone dramatic changes. For the most part, these ecosystem changes can be attributed to settler influences on the sensitive and arid environment of the Okanagan region.

When the first settlers arrived in the Penticton area they considered the unoccupied bottomlands found between Okanagan and Skaha Lakes to be prime acreage that was lying in a wasteful, unproductive state (see figure 2). It was on this Okanagan River floodplain that the city of Penticton, B.C. was built, and it soon became apparent why the local *Syilx* population did not permanently occupy these low-lying bottomlands. Annual flooding occurred between Okanagan and Skaha Lakes creating a major problem that led to a number of projects that had immense detrimental impacts on the ecosystems of this region. The traditional village sites in the Penticton region consisted of both summer and winter villages with the primary sites being the winter villages. Doug Hudson (1990:68) mentions that the *Syilx* moved to different winter village sites from time to time as winter wood supplies dwindled at one village location. The Penticton Indian Reserve was "granted" by the Joint Indian Reserve Commission in 1877, with the intent to keep warriors from either joining war efforts in the south or allying with the Shuswap (Harris 2002:29,31).

Figure 2: Okanagan River between Okanagan and Skaha Lakes



Source: Adapted from N.L. Barlee. 1983. City of Penticton. In *Penticton Years to Remember,* A. David MacDonald, ed. Penticton, BC: City of Penticton. Accessed at R.N. Atkinson Museum in Penticton.

After repeated floods in 1921 and 1928 it became necessary to construct a flood control dam to regulate the flow at the outlet of Okanagan Lake and it was also determined that the meanders in the Okanagan River needed to be removed to alleviate or lessen the impacts of the annual flooding (Symonds 2000:3). The flood control project remained in the planning stages until the devastating flood of 1948; it was at this time that provincial and federal planners finally decided to channelize the section of the Okanagan River that flowed between Okanagan and Skaha Lakes (Symonds 2000:5)

According to Frank Quinn (1965:10), American fisheries officials corresponded with the Okanagan Flood Control Project planners during the initial planning stages, in 1951, making it explicitly clear that they opposed the Okanagan River channelization project because it would destroy salmon spawning grounds. Despite warnings of the possible environmental consequences of the flood control project, it proceeded unabated and was completed in 1953 (Clark 1956:10; Symonds 2000:5). As a result of the channelization project, an estimated five miles of sockeye spawning beds were destroyed, along with the healthy wetland and riparian habitat that provided sanctuary for a diversity of indigenous flora and fauna.

The negative ecological impacts associated with the channelization of the river were compounded by the significant reduction in the surrounding water tables that in turn adversely affect the biological equilibrium found within the surrounding wetlands and riparian floodplain (Bowtree and Campbell 1998:124). The riparian and wetlands habitat adjacent to the Okanagan River were essentially destroyed within in few months following the completion of the flood-control project. Since a majority of the members of the Penticton Indian Reserve were living in the lower village area at that time, just

west of the Okanagan River, at the periphery of the floodplain area, they experienced the full force of these changes. The ecological disturbances created a cascading effect that extended beyond the riparian areas and had immediate and long lasting negative effects on the social, cultural, economic, and political structures of the Penticton Indian Band membership.

In 2004, as student researchers, Rose Caldwell and I conducted a series of interviews with Penticton and Westbank First Nation elders (Caldwell 2004; Sam 2004).[3] A group of elders from the Penticton Indian Band and one elder from the Westbank First Nation were interviewed in regards to the environmental and social changes they had witnessed in the months and early years following the construction phase on the Okanagan River. Included within the testimonials of the elders were descriptions of the cultural and economic impacts that befell those band members who were dependent on the biodiversity formerly found within this habitat.

The Penticton elders, Joey Pierre, Abel Paul, Sandy Lezard and Maggie Kruger in their own *Syilx* dialect eloquently described the flora and fauna that inhabited the Okanagan River riparian area prior to and immediately after the 1953 flood-control project. The respected Okanagan traditional knowledge keeper, Richard Armstrong, translated and transcribed the elder's testimonials verbatim into the English language.[4] The riparian and wetland area the elders are describing is located along the former course

[3] 2004. Okanagan University College and the En'owkin Centre collaborated on a research project titled "Okanagan Social and Ecological History Pilot Project" wherein interviews were conducted with *Syilx* elders concerning ecological and social transformations due to the 1953 flood control project on the Okanagan River. Dr. John Wagner (OUC) and Jeannette Armstrong (En'owkin Centre) were co-supervisors of the project.

[4] Transcriptions of the audio and visual recordings of the "OSEH Pilot Project 2004" are stored in a locked vault in the En'owkin Library. The original mini DVD discs are also stored in the library vault.

of the river, as well as, west of the river where the lower village is located, and along Shingle Creek, which joins the Okanagan River in this vicinity.

In addition to describing the flora and fauna of this area the elders were asked to describe the social conditions in their community before and after the 1953 flood-control project. Since the following quotations are translated versions of their answers, it must be understood that meanings and visual imagery are lost in the translation process from *Syilx* to English. In order to allow the elders' words to speak for themselves, quotations are accompanied by minimal explanatory comments.

> **Sandy Lezard**: Yeah, especially the land, like it was drying up. Not getting enough water, you could tell. Used to be when the breeze blew, the grass looked like waves on the water. The grass was tall, lots of flowers, lots of sunflowers. The horses and cattle had lots of wild feed. The grass was this high (visual imagery such as gestures to indicate waist high). Yeah, I seen that. Now the grass is only this high (indicating with fingers, six inches).
>
> **Louisa Eneas**: ….the hay grew lots. They would get two cuttings and they didn't need to irrigate. When they straightened out the river, everything dried up. They didn't get much hay from there anymore. So most of the people just sold off their cattle and horses. There used to be a wild purple flower (mariposa lily) that grew down there along the edge of the field. Our family used to dig, cook and eat them.
>
> **Abe Paul**: Well, everything is spoiled. Everything is ruined. There is nothing good left….there is no more muskrat and the rabbit, there used to be lots of them. The veery thrush, Lewis woodpecker and red napped sap sucker, they are all gone.
>
> **Maggie Kruger**: Everywhere around here, there were cattle and horses and hay fields. People came from all over. They would dry fish, pick berries and other native foods. When they changed the river there was nothing here for the people so they moved across the line (United States) to find work and they stayed down there, most of them. A lot of them never came back for years.
>
> **Louise Gabriel**: All you ever heard around here was singing and hollering, everybody was happy. We had *kkni* (kokanee almon) in this river before they straightened it out. When they would get enough they would divide it up and take it home. They all shared whatever they had.

> **Delphine Derrickson**: The water was good and plentiful back then….the white man diverted most of the water and they also spoiled the spawning grounds. That was a very wet area, even swampy (Okanagan River riparian area); they cleared the brush and trees. Yes, many things have changed; I saw all of those changes.
>
> **Joey Pierre**: *stunx* (beaver), *mhuya* (raccoon), *c'aris* (king fisher), *ciwcw* (Lewis woodpecker), *snkstiya* (skunk), *qwylan* (porcupine), *sxwupxwup* (flying squirrels), *xwextilp* (wild rhubarb), *nxastatkw* (watercress) and the *sq'weqwxwmina* (dipper), there used to be lots of them. Now, they are gone.

These respected Okanagan elders have faced adversity over the past two generations. The degradation to the water systems within the confines of the Penticton Indian Reserve boundaries were identified as being a primary cause of past and contemporary social and cultural disparities as experienced within their families and community.

Descriptions of a riparian area located at the confluence of Shingle and Shatford Creeks provide further examples of radical environmental changes and loss of biological diversity within the Penticton Indian Reserve. Four active land users and traditional knowledge keepers were interviewed about this area as part of this study. The interview participants- August Armstrong, Richard Armstrong, Jeannette Armstrong, and Christopher Eneas - are all members of the Penticton Indian Band and are fluent speakers of the *Syilx* dialect. Three of them were born, raised, and continue to live in the vicinity of this study area. The interviews were conducted at the August Armstrong residence located at the confluence of Shingle and Shatford Creeks and all except August were born in this house. August was the sole participant born in the Penticton Regional hospital.

The following testimonials mention the changes to the riparian areas found at the confluence of Shingle and Shatford Creeks. This study area has undergone severe ecosystem alterations during their lifetime and the following statements divulge the severity of the man-made alterations to these water systems, and how these changes

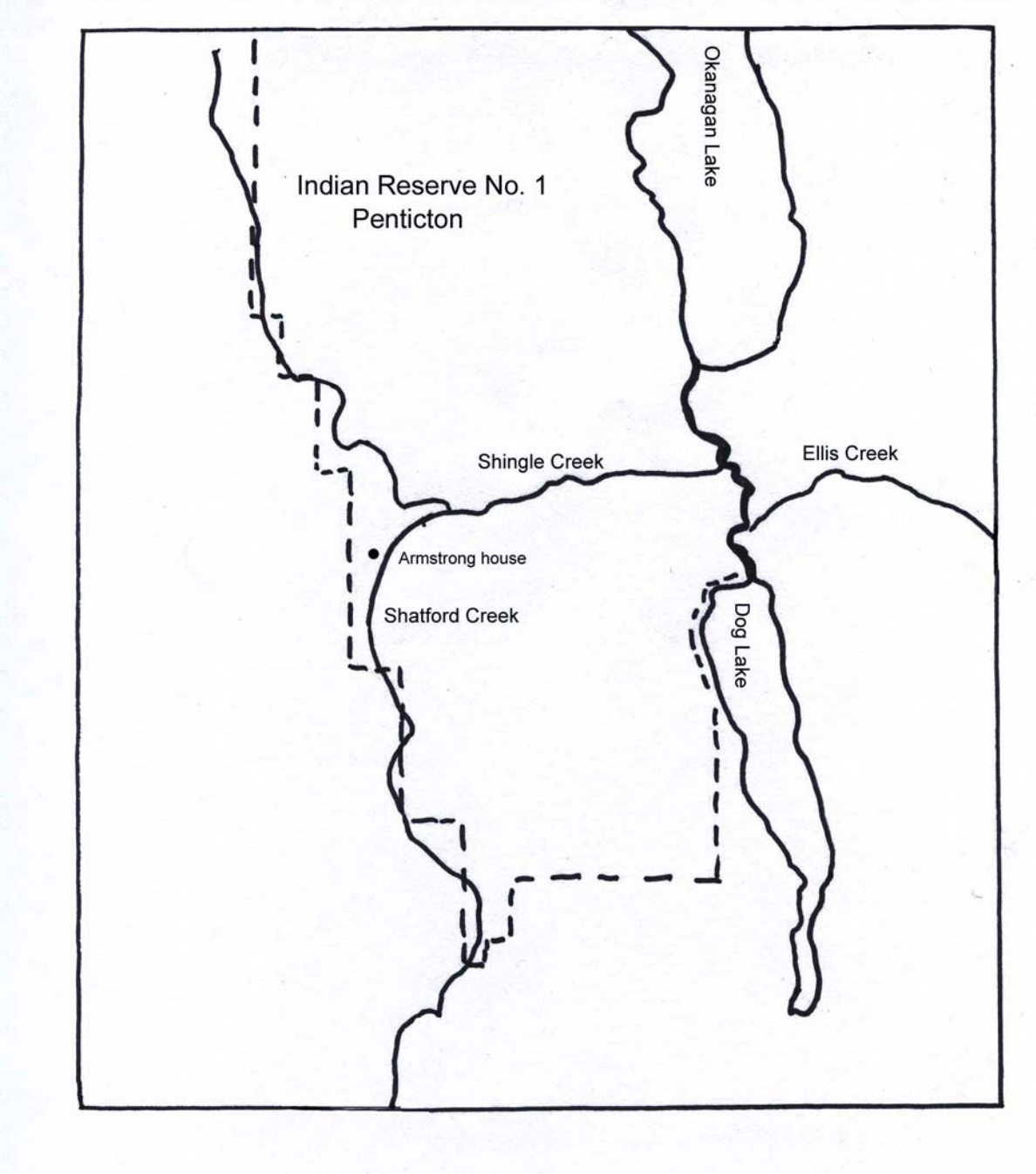
negatively affected the flora and fauna found within this area. The knowledge keepers were first asked to describe the environmental changes they have witnessed in the Shingle/Shatford Creek riparian area (see figure 3):

> **August**: We had lots of grass, thick cottonwood tree stands and all kinds of wildlife. Deer, bear, beaver, mink, muskrat, weasels, skunk, porcupine, coyotes, groundhogs, raccoons, trout, and the big trout which came up the creek during high water.
>
> **Richard:** There used to be lots of cottonwood trees along the creeks and the riparian area was wide on both sides of the creeks. There was lots of brush, birch, chokecherries, raspberries, gooseberries, rosebushes and willows. There was lots of fish in the creeks, the rainbow trout that came and spawned up this creek were huge, thirty inches and up to thirty-two pounds. There was bear, deer, pheasants, bobcat, lynx, willow grouse, squirrels, and lots of rabbits.
>
> **Christopher**: We could drink the water back then, it was clear. The grass used to grow three feet high. When you'd look out on these hills when the wind was blowing, it would look like waves on the lake, that's how tall the grass grew. Now you don't see that anymore. One of the biggest changes I've seen is the man-made dams that diverted water for farmers use and as a result dried our creeks.
>
> **Jeannette**: The grass was really thick, probably over three feet tall, it would be up past a horse's belly. Chokecherries, elderberries, raspberries, and the *siya* was prolific around here. Lots of skunk, porcupine, mink, fisher, muskrat, blue grouse, willow grouse, deer, bear, rabbit, groundhog, coyote, beaver, otter, ground squirrel, and flying squirrels. The cottonwoods were thick along the creek.

The knowledge keepers were next asked to describe the quality and quantity of water in Shingle and Shatford Creeks:

> **August**: We could drink out of the creek at that time. We decided not to drink it after awhile because it changed color. We had swimming holes just about everywhere. We'd have water up to four or five feet deep.
>
> **Richard**: The creek was deep and anywhere you went along the creek you would have no problem with jumping into a nice pool. There really wasn't pools, the water was just deep all the way through. We had no problem with playing in it and drinking it, it was clean, clear water. Today the water is pitiful, the water is ankle deep in some places, less than ankle deep, you couldn't even sit down and get enough water to cover yourself.

Figure 3: Shingle and Shatford Creeks Study Area



Source: Adapted from: BC Department of Lands, Forests and Water Resources, Water Resources Service. 1966. Report on Shuswap River – Okanagan Lake Water Supply Canal, ARDA (Research) Project No. 10031.

Christopher: We had healthy water back then. We could drink the water, it was clear. There were no contaminants in the water.

Jeannette: The water was good, lots of water for irrigation. I remember swimming in those big deep pools; the water was ten, fifteen feet deep behind the beaver dams.

The next question asked them to describe the flora that were present when they were young and how have the water levels changed the local riparian environment:

August: We used to have watercress, wild rhubarb, swamp grass, and the hillsides next to my house were covered in tall grass. The hills would stay green all year without getting dry. Now the hills get dry and have been taken over by foreign plants like knapweed, burrs, and thistles.

Richard: It was a real healthy area along the creeks, lots of rosebush, rhubarb, and chokecherries. When I was a young boy there was no such thing as burdock and hounds tongue around here, now it grows wild, everywhere!

Christopher: I've noticed back then, we had a lot of medicinal plants that grew where there were moist areas. Now those moist areas have turned to dust beds. Now the only things that grow there are knapweed, hounds tongue, and burdock, just to name a few invasive plants that don't even belong here and are taking over our valley.

Jeannette: I remember seeing a thin viney grass, sweet clover, red top, mint, and wild raspberries.

The final question asked the interview participants to describe what outsider interventions negatively impacted the water systems on Shingle and Shatford Creeks:

August: Roger's ranch diverted the whole creek (Shingle Creek early in the 1970s) and took all the water to grow alfalfa. Our upper ranch irrigation system went dry, the hay field turned into nothing but knapweed.

Richard: The creek from Joe Kruger's fence line was straightened out by means of channeling. The water table completely dropped because the water doesn't ever have a chance to slow down, it rushes right through.

Christopher: Water diversions for big corporate developments are consuming water that should be flowing through our area. Big housing developments create sewage that is going into our creeks.

Jeannette: I noticed a change as these ranchers around us started taking over the water rights and began sprinkler irrigation. The white ranchers broke the Indian

> irrigation dams and piped water over from their lands to rented Indian lands. These water tables really dropped and our lands went dry.

The Armstrong family had operated a thriving cattle ranch until an upstream white rancher diverted water on the upper Shingle Creek during the early 1970s and essentially made it impossible for them to continue flood irrigation on their upper ranch hay field. As mentioned by August Armstrong the flood irrigated hay field produced an adequate supply of hay for their cattle herd but eventually, as a result of the upstream water diversion, the hay field dried out and was overtaken by the invasive dry land Russian knapweed (*Acroptilon repens*).

The Armstrong's described a riparian area at the confluence of Shingle and Shatford Creeks that once abounded in game animals with diverse flora that provided both medicine and food for human consumption and grazing for domestic and wild fauna. The riparian area was covered with cottonwood, alder, and poplar stands, while willow, thornbrush, chokecherry, and elderberry provided dense underbrush. This habitat provided adequate shelter, food, and hiding places for the many small and large animals that resided there.

With the increased population in the upper reaches of Shingle and Shatford Creeks, problems associated with urbanization and agriculture soon began to negatively affect these water systems. The channeling that occurred on the section of Shatford Creek that flowed through the Armstrong property was completed without their consent based solely on the discretionary powers of the Department of Indian Affairs.

Stream alterations on Shingle and Shatford Creeks that include diversions, channeling and damming have irrefutably caused a reduction in water in the study area.

Water diversion allocations are supported by provincial water acts giving upstream users unrestricted access to limited water supplies on Shingle Creek that were noted during the late nineteenth century (Jolly 1999:21). These alterations have caused drastic changes over the lifetime of the interviewees and as previously noted the clean, clear water that flowed in the creeks is now contaminated. The contamination, in part, is a result of large herds of cattle that are allowed to defecate and urinate directly into these water systems. Chemical fertilizers, poisons for gopher eradication, snowmaking, mining and logging activities are other major contributing factors that impact water quality in this study area.

Today, the riparian area around the confluence of Shingle and Shatford Creeks exists in a degraded state and contains only a minute fraction of the biological diversity that once existed here. A number of plants and animals that was present when the interviewees' were children are currently on the endangered list or have been totally extirpated.

The thick stands of cottonwood, alder and poplar that were formerly in the study area have been cleared for hay lands and the Armstrong property currently holds the last remaining significant stands of these species in this area. These stands of red and white willow, rosebush, thornbrush, elderberry, and chokecherry are found in small scattered pockets within the study area and provide a dense underbrush habitat for the faunal species that continue to occupy this region.

Watercress has become extinct and wild rhubarb is only found in a fenced protected area on the Armstrong property. Brush and cottontail rabbits have not been seen here for at least thirty years. The blue grouse that gathered in flocks of hundreds is

only found in small numbers at higher elevations, habitat loss in the study area being the primary factor for their relocation.

The quality of water has undergone radical changes over the past fifty years. During the interviewees' lifetimes they have witnessed dramatic transformations in the quality and quantity of water. They have stated that they could drink water directly out of the creeks during their youth, while today they are unsafe to swim in because of high levels of pollutants. The depth and volume of water is a small fraction of what it used to be, as pointed out by August Armstrong who stated that Shingle Creek was four to five feet deep all along its course through the Armstrong property whereas today the same creek is only ankle deep.

The interviewees' pointed out the significant lowering of the water table on their property over the past fifty years. The cause could be attributed to the non-indigenous ranchers who removed large stands of cottonwood, alder, and poplar trees and the dense underbrush from the riparian area. This would have led to cascading negative effects on biological diversity as species accustomed to and dependent on this habitat would have been severely compromised.

Christopher Eneas (2008) described the presence of tall thick grasses that, "flowed in the winds like waves on the lake." Jeannette Armstrong (2008) remembers the grass as being, "really thick, probably over three feet tall, it would be up past a horse's belly." The tall grasses that flowed in the winds like waves on the lake have long disappeared and haven't been seen for a few decades and have been replaced with a number of foreign invasive species.

These thick bountiful grasslands provided food and shelter for numerous species mentioned such as the rabbit, skunk, pheasant, grouse, groundhog, and deer. If these animals were present then the predatory species such as lynx, bobcat, coyote, and wolves would be in close proximity. It stands to reason that if this habitat is altered or totally removed the animals would then be forced to move to another area for shelter and protection. Often this means migrating to another area, for example, the blue grouse have in recent years been coming back into the region but only in the higher hillsides around the Shingle and Shatford Creek confluence.

Alterations to any ecosystem come at the expense of biotic life forms, while disruptions, be they minute or major, cause what is termed a trophic cascade (Carpenter and Kitchell 1993:2-4; Reid 1961: 282, 297-298). The negative effects that rippled through the diversity of life in this region are without a doubt caused by human interventions. Once again policy development for the benefit of settler societies resulted in negative ramifications for the environment.

Chapter 6 Conclusion

Syilx history is thousands of years old and it did not begin with the written accounts of European settlers. The *Syilx* had established a land/human relationship within the Interior Plateau region that had existed for a few millenniums prior to first European contact. The first written descriptions of the Interior Plateau were the journal recordings of the European explorers wherein the narratives revealed the abundance of flora and fauna that flourished within this ecosystem. Using contemporary ecosystems of the Interior Plateau as the basis of comparison, it is difficult to imagine the richness of the biodiversity described during the first contact era.

Early 20th century *Syilx* author Mourning Dove and her grand-niece and contemporary writer, Jeannette Armstrong, have transformed oral memories into written historical narratives that depict the *Syilx* connection to land, culture, and community. These written narratives are built upon TEK-based accounts that exhibit *Syilx* interaction with their local environments and create an opportunity for sharing past and contemporary worldviews. The combination of first contact observations, early settler accounts, and *Syilx* depictions provide a collectively chronicled, rare visual glimpse into the past.

The first food ceremonies that respect the sacredness of all life continue to be practiced by the *Syilx* despite the blockage of the salmon from their spawning grounds on the tributary streams of the Okanagan and Columbia Rivers. The salmon-calling songs and the accompanying feast and celebration continue on an annual basis on the banks of Lake Roosevelt at the site of the inundated Kettle Falls and on the Okanagan River at Okanagan Falls. Penticton elder Louise Gabriel in her 2004 testimonial shared a moment

in time where happiness and joy were the prevalent emotions amongst the community during the spawning of the *kkni*. Today the *kkni* are contaminated and unfit for human consumption and the community no longer gathers at the traditional fishing sites along the shores of the Okanagan River and its tributary, Shingle Creek.

In today's world, the cultural survival of the majority of the *Syilx* is dependent on maintaining and preserving their existing land base that in turn insures the protection of the flora and fauna that have survived the rapid ecological transformations that have occurred in the Okanagan Valley. The cultural practices and ceremonies are steadfastly being kept alive by small groups of traditionalists who are spread out across the territory. At a time not far removed from today, the social, cultural, economic and political structures of the *Syilx* revolved around the salmon. Today, we must travel many miles to neighboring territories with the hope that our allies have an available surplus of salmon for trading purposes.

At first glance, it is extremely confusing to associate the decline of the Columbia and Okanagan River salmon stocks to the historical development of water management policies in the American Far West during the 1850s. Post-colonial theory has created a space that serves a useful purpose by allowing the integration of diverse perspectives that include U.S. government legislative leaders, early explorers, ethnographers, and the oral testimonials from *Syilx* elders and knowledge keepers. A regional political ecology approach is necessary to understand how the settler populations impacted the ecosystems in the Okanagan Valley, in particular specific regions within the Penticton Indian Reserve. The local environmental considerations primarily revolve around the impacts of exponential population growth, the rapid development of agriculture, ranching, mining

and the international treaties and trade agreements. The development and implementation of local water management projects by provincial and federal authorities ignored constitutional guarantees to indigenous peoples and as a result transformed and disrupted the ecosystems within the Penticton Indian Reserve.

The ecological transformations along with the social, cultural, economic, and political impacts are succinctly described in the testimonials of the *Syilx* elders and knowledge keepers. The abundance of biological diversity within the Penticton Indian Reserve became apparent during the interviews of the Armstrong family and the Penticton elders. The social condition of the PIB community and the degradation of the local ecosystems at two specific sites on the Penticton Indian Reserve were evidenced in the oral testimonials.

Feminist theory or *Syilx* women's perspective in this study in no manner reflects any association with gender inequality but is instead intended to exhibit *Syilx* women as the spokespeople who reflect the voice of the *timxw*. This conceptual framework posits and acknowledges the existence of natural laws that continue to guide contemporary *Syilx* thought and actions. The collective voices of the *Syilx* women are rooted in their own cultural values and experiences and display displeasure and resistance to foreign and domestic policies that continue to have negative impacts on family, community, and the environment.

The diverse approaches and worldviews included in this study were intended to give equal value to the multitude of interdisciplinary perspectives and were in no manner biased on gender. Non-indigenous female voices and perspectives from Susan Allison, Margaret Ormsby, Wendy Holm, Susan Gooding, Dorothy Kennedy, and Jennifer V.

Chance are a few examples of contributors that assisted in documenting and exposing the region's social and environmental history. The descriptive words of Susan Allison during the late nineteenth century confirmed and validated the existence of the rich biological diversity present in this region.

Development of a collaborative and restorative ecological model

Within the indigenous approaches formulated by Pacific Island scholars such as Linda Smith (2002) and Melanie Anae (2000), the land, environment and human cultures are respected and acknowledged as having equal voice and the right to exist in common. The Pacific approaches are reminders to indigenous and non-indigenous societies that contrasting cultural worldviews do not diminish the possibility of collective thought that is beneficial to all participants.

Similarly, under the *Enowkinwiwx* approach, there exists the acknowledgement that the natural world has rights, status and the opportunity to privileges of life that are equal to those of human inhabitants. The *Syilx* have the right to live in a harmonious relationship with the natural world; likewise the biological diversity within *Syilx* territory shares in this natural right and benefits from the *Syilx's* ability to protect these rights. *Syilx* rights to land and resources do not emanate from the Crown or any form of foreign imposed jurisdiction.

The *Sylix* perspective on water rights is understood in a vastly differing manner than the European concept of rights, which is tied to exclusionary ownership. *Syilx* water rights are viewed as an ethical responsibility as water is recognized as central to the existence of all living things. Maintaining the responsibilities of caretakers of all life

forms within the water systems assured the ability of the salmon and other water species to regenerate on an annual basis, thus ensuring the abundance of these species therefore ensuring the survival of the future generations of the *Syilx*.

Syilx water rights were never abrogated and the 1877 Joint Indian Reserve Commission holds records that acknowledge the existence of these rights prior to the first preemptions in the Okanagan Valley, which occurred in 1867. The *Syilx* oral histories combined with the written narratives of the European settler societies contribute a diverse environmental perspective on Okanagan water systems.

The *Enowkinwixw* approach has created an opportunity to include the various interdisciplinary perspectives and worldviews that allow for the development and negotiation of a cross-cultural sustainable model of restoration and recovery of our local ecosystems. The foundation of this model is dependent on commitment of the individual and their willingness to participate in a process that facilitates change. This commitment would involve becoming engaged in dialogue wherein other people are given equal opportunity to offer their perspectives. Local knowledge keepers, TEK and WSK, are central figures in this model. These individuals are representative of their family and community and combined are the foundation of a nation. Therefore the model would have the individual in the center, the next concentric circles flowing outward, would be represented by the family, community and nation. The status of nation, in the indigenous perspective would be, i.e. the Okanagan Nation and for the non-indigenous peoples, the nation-state of Canada.

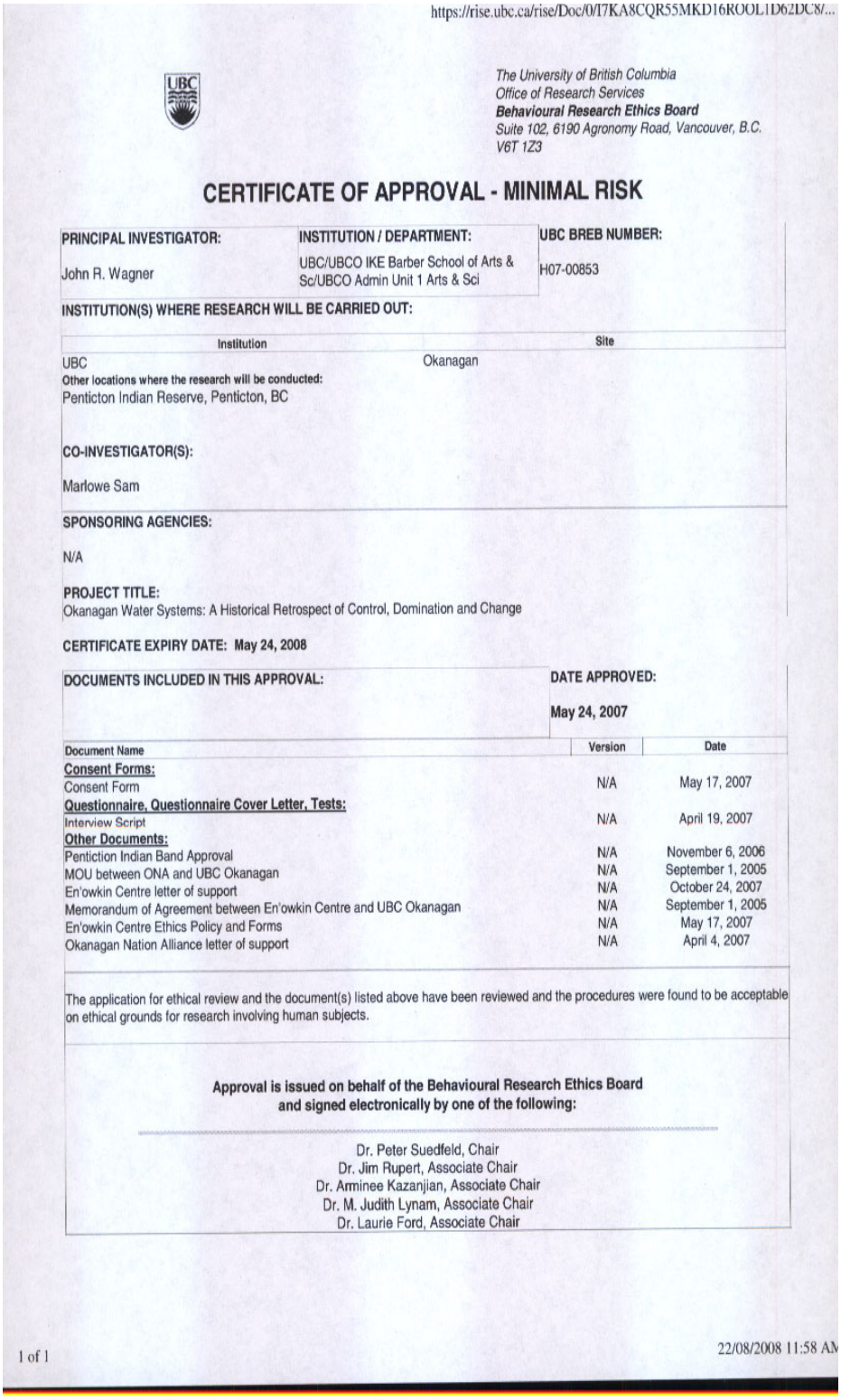
TEK and WSK have become engaged in a number of ecological restoration projects in the Okanagan valley. For example, the Locatee project on the Penticton

Indian Reserve is focused on protecting and preserving a few remaining acres of riparian and wetland habitat for a number of endangered flora and fauna. This effort is totally dependent on collaboration between TEK and WSK and has created local, national and international awareness of the ecological benefits through the restoration and enhancement of the critical habitat at this ecosite. This and other small collaborative restorative projects are the beginning stages of the return to a balanced sustainable relationship between man and the natural world.

The model in this study offers a before and after scenario of specific ecosites within the Penticton Indian Reserve and details the radical transformation of the water systems by the settler societies. It is my opinion, that if the historical usage and transformation of any water system are studied and evaluated by local knowledge keepers it will become apparent that restoration can occur only through collaboration between indigenous and non-indigenous societies.

The recent settler society relationship with the *Syilx* and the Okanagan ecosystems are the basis of a new collective responsibility that is not based on social, cultural, economic or political differences. Water is the common denominator that seemingly has the power to mend old wounds, so that the *timxw* present in our eco-communities will prosper and move forward into the future.

Appendix 1 Research Ethics Board Certificate of Approval



The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road, Vancouver, B.C.
V6T 1Z3

CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR:	INSTITUTION / DEPARTMENT:	UBC BREB NUMBER:
John R. Wagner	UBC/UBCO IKE Barber School of Arts & Sc/UBCO Admin Unit 1 Arts & Sci	H07-00853

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:

Institution	Site
UBC	Okanagan

Other locations where the research will be conducted:
Penticton Indian Reserve, Penticton, BC

CO-INVESTIGATOR(S):

Marlowe Sam

SPONSORING AGENCIES:

N/A

PROJECT TITLE:
Okanagan Water Systems: A Historical Retrospect of Control, Domination and Change

CERTIFICATE EXPIRY DATE: May 24, 2008

DOCUMENTS INCLUDED IN THIS APPROVAL:

DATE APPROVED:

May 24, 2007

Document Name	Version	Date
Consent Forms:		
Consent Form	N/A	May 17, 2007
Questionnaire, Questionnaire Cover Letter, Tests:		
Interview Script	N/A	April 19, 2007
Other Documents:		
Pentiction Indian Band Approval	N/A	November 6, 2006
MOU between ONA and UBC Okanagan	N/A	September 1, 2005
En'owkin Centre letter of support	N/A	October 24, 2007
Memorandum of Agreement between En'owkin Centre and UBC Okanagan	N/A	September 1, 2005
En'owkin Centre Ethics Policy and Forms	N/A	May 17, 2007
Okanagan Nation Alliance letter of support	N/A	April 4, 2007

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:

Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair

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