MANDELL PINDER LLP
BARRISTERS & SOLICITORS

422 - 1080 MAINLAND STREET | VANCOUVER, BC | V6B 2T4
RECEPTION SUITE 300 | T 604.681.4146 F 604.681.0959

Rosanne Kyle
<contact information removed>
Email: <email address removed>

February 20, 2017

DELIVERED VIA EMAIL (Panel.RBT2@ceaa.gc.ca)

Review Panel, Roberts Bank Terminal 2 Project
c/o Canadian Environmental Assessment Agency
22nd Floor, 160 Elgin Street
Ottawa, ON K1A 0H3

Attention: Debra Myles, Panel Manager

Dear Sirs/Mesdames:

Re: Roberts Bank Terminal 2 Project (the Project)

On behalf of the Pacheedaht First Nation, we write in response to the Review Panel's request for additional information on the potential environmental effects of the proposed Project and associated marine shipping. As set out in our November 30, 2017 letter, we understand that the Review Panel is requesting that Pacheedaht file its evidence relating to the Project as soon as possible.

Traditional Use and Occupancy Study Report

Please find enclosed (hyperlinked) for the Review Panel's consideration a copy of a report entitled "Pacheedaht First Nation Traditional Use and Occupancy Study Report for Port Metro Vancouver Roberts Bank Terminal 2 Project". Please note that this report was prepared in 2015. Since then, considerable additional research and reporting has been completed for Pacheedaht as time and resources have permitted. Additional information will be provided to the Review Panel in the Marine Traditional Knowledge report being prepared for the Project.

Confidential Information

As set out in our November 30, 2017 letter, some of the evidence Pacheedaht wishes to provide in relation to potential impacts from the Project is sensitive and confidential in nature. Please advise when we can expect to hear back from the Review Panel about the process for filing this information confidentially.

We look forward to your response.

Yours truly,

MANDELL PINDER LLP

Rosanne Kyle

RK/VM/er

Encl. Pacheedaht First Nation Traditional Use and Occupancy Study Report for Port Metro Vancouver Roberts Bank Terminal 2 Project (2015)

cc: Analise Saely, CEAA (via email at <email address removed>)

Pacheedaht First Nation Traditional Use and Occupancy Study Report for Port Metro Vancouver Roberts Bank Terminal 2 Project

Pacheedaht youth collecting intertidal seafood on Juan de Fuca Strait shoreline

Prepared by
Pacheedaht Heritage Project, Pacheedaht First Nation Treaty Department

and

Traditions Consulting Services, Inc.
September 23, 2015

Note to Reader

This Traditional Use and Occupancy Study has been prepared with respect to Port Metro Vancouver Roberts Bank Terminal 2 Project, and for the purpose of the preparation of an Environmental Impact Statement (EIS) for that project.

This report has been prepared in response to, and within the time constraints of, the Port Metro Vancouver Roberts Bank Terminal 2 Project and should not be construed as defining or limiting Pacheedaht First Nation Aboriginal rights and title. The information provided is without prejudice to Pacheedaht First Nation Aboriginal rights and title.

No attempt has been made to standardize the transcription or rendering in English of Pacheedaht names and words; they appear in the report as presented in source materials and as phonetically rendered in interview notes and transcriptions. The term “seafood” is used in this report to refer to intertidal (and some subtidal) gathering, as this is the term commonly used by Pacheedaht community members.

This report does not explicitly address all matters of aboriginal title or aboriginal rights of the Pacheedaht First Nation for the Study Area, although the Traditional Use and Occupancy Site and other information included provides evidence related to their aboriginal title and aboriginal rights.

Executive Summary

This report presents information about the Pacheedaht First Nation related to their aboriginal interests (rights and title) and traditional use and current use of lands, waters and resources, as related to the Port Metro Vancouver Roberts Bank Terminal 2 Project. The report has been prepared with consideration of the "Updated Guidelines for the Preparation of an Environmental Impact Statement, Pursuant to the Canadian Environmental Assessment Act, 2012 for the Roberts Bank Terminal 2 Project proposed by Port Metro Vancouver" (RBT2 EIS) dated April 17, 2015. It has also based on topics and formatting requested by Port Metro Vancouver representatives.

The purpose of the Pacheedaht First Nation Traditional Use and Occupancy Study Report for Port Metro Vancouver (PMV) Roberts Bank Terminal 2(RBT2) Project is to update TUOS information for PMV to review and include in their supplementary report. The locations, resources, and activities of traditional importance to the Pacheedaht First Nation that could be affected by increased marine vessel traffic by RBT2, or by any associated accidents or malfunctions, are represented in this report. The report should not be viewed as comprehensive as additional research, interviewing and groundtruthing would undoubtedly uncover additional information.

Pacheedaht Territory is located on the southwest coast of Vancouver Island, generally bounded on the east near Point No Point and Sheringham Pt., and on the west near Cullite Creek; and extending inland to include the drainages of the rivers and streams on Vancouver Island between those two locations. The Pacheedaht also have aboriginal fishing and hereditary harvesting rights at *?'uöu:?a:* **(**Swiftsure Bank).

The Pacheedaht regard themselves as a distinct First Nation with a history in their territory that extends back over centuries. A summary history of Pacheedaht is presented in the report, as well as information about the locations of Pacheedaht villages and campsites. Historical records dating from the Contact and Colonial Periods record that Pacheedaht people have occupied their territory continuously, that their livelihood and economy was based primarily on marine resources, and that they traded in marine resources with other First Nation and with white explorers and traders.

During traditional times, the Pacheedaht engaged in a seasonal round. Land and sea mammal hunting, and gathering of plants, berries and other resources occurred when resources were seasonally available, of particular quality, abundant, or best to obtain.

Throughout the vast majority of their long history, Pacheedaht ancestors enjoyed unrestricted access to the wide variety of resources in the ocean, rivers and lands in their territory. They gained a wealth of knowledge about their territory based on direct personal observations and experiences. This wealth of information is today commonly referred to as Traditional Ecological Knowledge (TEK) and is generally considered distinct from "scientific knowledge." Tables of TEK information about resources located in, along or near the marine environment in Pacheedaht territory are presented in the report.

Since Contact, many developments and historic events have occurred to the Pacheedaht and within their territory that have had significant impacts on their traditional rights, as well as on the land and marine portions of their territory. The potential effects of the proposed project should be evaluated considering the context of these developments and events. The cumulative effects include, but are not restricted to, topics described in the report, including:

- disease and depopulation after Contact;
- establishment of Indian Reserves and the corollary alienation of Pacheedaht lands and resources;
- loss of language, culture and traditions through Indian Residential Schools, anti-potlatch laws, and the efforts of missionaries and Indian Agents;
- industrial logging and associated environmental impacts;
- non-native settlement activities;
- hydroelectric and mining activities;
- acquisition of lands and marine areas for the establishment of federal, provincial and regional parks; and
- depletion of fisheries and other marine resources, and the imposition of fishing and marine harvesting regulations including loss of economic rights for harvesting of marine resources.
- re-routing of the international shipping lanes in 2005 such that they intersect and interfere with safe access to Swiftsure Bank, one of Pacheedaht's preferred fishing areas

The proposed RBT2 project's increase in marine vessel movements, and the effects of a potential accident or malfunction, have the potential to impact Pacheedaht members' current and future harvesting and other rights in many ways. Some topics related to potential impacts of the proposed project, as derived from available information about the RBT2, and as expressed by Pacheedaht members, are presented in the report in some detail including:

- pollution, including water quality and air quality;
- impacts to economic intersts, view scape and soundscape;
- cultural concerns and impacts to traditional spirituality
- significance of Swiftsure Bank
- Transport Canada standards and changes in the shipping lanes in the Strait of Juan de Fuca;
- potential changes to quality and quality of resources and TUOS sites.
- cargo ship wakes and safety while harvesting;
- risk of accidents and malfunctions;
- status of WCMRC preparedness with respect to Pacheedaht territory;
- recommendations for oil spill and vessel malfunction response planning;

The report concludes with a presentation of information about the methodology and results of the project's research concerning Pacheedaht traditional use and occupancy sites located within the project Study Area. All traditional use and occupancy Sites have been classified, at the most general level, according to ten "Categories" that facilitate the presentation of information on the Project Maps, presented according to the following site "Categories" and portrayed on the project maps, provided in Appendix C of the report.

Map 1: Archaeological Sites
Map 2: Culture History Sites
Map 3: Dwelling Sites
Map 4: Coastal Birds
Map 5: Fishing Sites
Map 6: Marine Invertebrate Sites
Map 7: Marine Vegetation Sites
Map 7: Terrestrial Vegetation Sites
Map 8: Terrestrial Wildlife Sites
Map 9: Travel Sites
Map 10: Marine Mammal Sites
Map 11: All Sites

There are currently 720 sites in the Pacheedaht First Nation TUOS site database, of which 521, comprising 72.4% of the PFN TUOS site total, are within or intersected by the RBT2 Study Area.

Table of Contents

Introduction 1
ROBERTS BANK TERMINAL 2 PROJECT 1
PMV REPORT (DRAFT) 2
RBT2 EIS 3
REPORT LIMITS 3
REPORT PURPOSES 3
STUDY AREA 4
Pacheedaht Culture and History Overview 6
PACHEEDAHT TRADITIONAL HISTORIES 11
THE PACHEEDAHT IN HISTORICAL RECORDS 12
PACHEEDAHT USE OF MARINE RESOURCES 15
Species Table 18
SPECIES AND USE 18
CUMULATIVE EFFECTS SUMMARY 45
Potential Impacts of RBT2 Expansion 46
AVAILABLE INFORMATION FOR RBT2 46
CHANGES TO QUALITY AND QUANTITY OF RESOURCES 46
Impacts to Resource Acquisition 46
Destruction of Habitat by Proposed Shipping Traffic Increase 47
INCREASED RISK OF ACCIDENTS AND MALFUNCTIONS 48
CHANGES TO THE QUALITY AND QUANTITY OF LOCATIONS 51
Impacts to Swiftsure Bank 52
Shipping Lane Intersection of Pacheedaht Traditional Territory 53
CHANGES TO USE OPPORTUNITIES AND PRACTICES AS A RESULT OF RBT2 54
Cultural Concerns 54
Interference of Harvesting Practices 55
Impacts to Safety While Engaged in Harvesting Activities 55
Pacheedaht Economic Initiatives 56
Impacts to Traditional Spirituality 57
Recommendations for Oil Spill Response Planning 58
Pacheedaht Traditional Use and Occupation Sites 58
Information Sources 59
TRADITIONAL USE AND OCCUPANCY SITE RESEARCH METHODOLOGY 59
PFN TUOS Site Analysis and RBT2 Maps 62
TRADITIONAL USE AND OCCUPANCY SITE SUMMARY 65
Conclusion 66
Photographs 69
References 77

Appendix A: PMV Report (Draft) and TERA Report 81

Appendix B: Pacheedaht First Nation Traditional Marine Use and Occupancy Study (TMUOS) 2014 Final Report 84

Appendix C: Pacheedaht First Nation TUOS Maps for the Roberts Bank Terminal 2 Project (PFN RBT2 Maps) 85

List of Figures

Figure 1: Pacheedaht Territory with RBT2 Marine Shipping Area. 5
Figure 2: Pacheedaht Traditional Territory with Villages and Campsites. 10
Figure 3: Community fishing is an important part of Pacheedaht culture and identity... 70
Figure 4: Fishing at Swiftsure Bank is a part of an unbroken Pacheedaht tradition, and creates cultural continuity. 70
Figure 5: Pacheedaht people enjoy catching smelt in the surf along the beach at the head of Port San Juan..... 71
Figure 6: Pacheedaht weavers collect the special grasses for making traditional style baskets along coastal shorelines..... 71
Figure 7: Harvesting chitons, one of the traditional "seafoods" collected by Pacheedaht community members when the tide is out. 72
Figure 8: Gooseneck barnacles are another great seafood delicacy enjoyed and savored by Pacheedaht members. 72
Figure 9: Pacheedaht students learning about plant harvesting..... 73
Figure 10: Preparation of a pit for cooking, a traditional way of preparing foods, including plants, fish and meat. 73
Figure 11: Abundant sea lion Rookery located off the shores of Qala:yit IR #3. 74
Figure 12: Grey whales are a frequent sight, known to feed on the rich fishery resources at Qala:yit IR #3 and Swiftsure Bank. 74
Figure 13: Elders share their pride while fishing out at Swiftsure Bank. 75
Figure 14: Rare sighting of a sunfish out at Swiftsure Bank. 75
Figure 15: Sports fisherman activity within the closed area at Swiftsure Bank..... 76
Figure 16: Cargo ship seen transiting Swiftsure Bank closure, August 2015. 76

List of Tables

Table 1: TUOS Database Fields 61
Table 2: Summary Overview of RBT2 Maps and Site Categories 63

Introduction

This report presents information about the Pacheedaht First Nation related to their aboriginal interests (rights and title) and traditional use and current use of lands, waters and resources, as related to the Port Metro Vancouver Roberts Bank Terminal 2 Project. The report has been prepared with consideration of the "Updated Guidelines for the Preparation of an Environmental Impact Statement, Pursuant to the Canadian Environmental Assessment Act, 2012 for the Roberts Bank Terminal 2 Project proposed by Port Metro Vancouver" (RBT2 EIS) dated April 17, 2015. It has also been prepared based on topics and format requested by Port Metro Vancouver representatives.

Roberts Bank Terminal 2 Project

The Vancouver Fraser Port Authority, doing business as Port Metro Vancouver (PMV), proposes to build a new three-berth container terminal at Roberts Bank in Delta, British Columbia (B.C.), the proposed Roberts Bank Terminal 2 Project (RBT2). The Project will involve the development of additional land area at the seaward end of the existing Roberts Bank causeway, adjacent to the existing Deltaport Terminal and Westshore Terminals, widening of the existing causeway, and expansion of the existing tug basin. The Project would provide for an additional 2.4 million twenty-foot equivalent units (TEUs) of container capacity per year in marine shipping. [1]

The Project would also result in an expansion of marine shipping activities within the 12 nautical mile limit of Canada's territorial sea, associated with the operational phase of the RBT2 Project. Project-related marine shipping activities would include all RBT2 inbound and outbound container ship movements within the Marine Shipping Area (MSA, see Figure 1). PMV describes the marine shipping associated with RBT2 project as follows:[2]

> For the purposes of the RBT2 assessment, a mid-sized ship with a capacity of 9,300 TEUs (twenty-foot equivalent units) was assumed to be representative of the average size container ship calling on RBT2. This would represent approximately 260 container ship calls per year when the terminal reaches its 2.4 million vessel TEUs design capacity between 2025 and 2030. This results in 520 Project related container ship movements per year, or on average approximately 1.5 ship movements per day during the 358 operating days per year of RBT2.

The RBT2 Project would result in considerable growth to the marine traffic that currently passes through the marine portion of Pacheedaht territory (Figure 2), and particularly across Swiftsure Bank (also known as *?'uöu:?a:*, or Pacheedaht Bank), an area of special concern to Pacheedaht. Pacheedaht territory stretches along the

[1] Port Metro Vancouver. "Roberts Bank Terminal 2 Project: Marine Shipping Supplemental Overview, Draft. May 25, 2015." Vancouver: Port Metro Vancouver, 2015.
[2] Ibid.

coastline of Vancouver Island between *bakułqawa?* (Sheringham Point) on the east and *bu:lqawa?* (Bonilla Point) on the west, and extends inland to include the intervening watersheds, taking in Walbran Creek, Gordon River, San Juan River, Loss Creek, Jordan River and others as shown on Figure 2. Pacheedaht territory includes the offshore area between these points (*bakułqawa?* and *bu:lqawa?*) and extends into the Strait of Juan de Fuca.

As described later, *?'uöu:?a:* (Swiftsure Bank), is one of Pacheedaht's preferred areas to exercise their Aboriginal right to harvest a vast variety of sea resources; Pacheedaht share access to Swiftsure Bank with the Ditidaht and Makah.

PMV Report (Draft)

In late July of 2015, Port Metro Vancouver (PMV) submitted a letter to Pacheedaht, together with a draft report titled, "Roberts Bank Terminal 2 Project, Marine Shipping Study: Pacheedaht First Nation, Current Use of Lands and Resources for Traditional Purposes – Summary of Existing Conditions" (PMV Report).[3] The letter described the PMV Report as:[4]

> …an advance draft of PMV's understanding, based on the sources reviewed, of existing conditions pertaining to your Nation's current use of lands and resources for traditional purposes, and exercise of asserted Aboriginal rights within the Marine Shipping Area… for review and comment. The summary of existing conditions will form the basis of the assessment. The approach to assessing potential environmental effects on Current Use and impacts on the exercise of asserted Aboriginal rights as a result of marine shipping associated with the Project will be based on methods employed in the RBT2 Environmental Impact Statement (EIS)"

The PMV letter requested that Pacheedaht confirm that the information in the PMV Report was accurately presented and asked whether any revisions, additions or deletions were required. After an internal Pacheedaht review of the PMV Report, a meeting between Pacheedaht and Port Metro Vancouver representatives was held on August 14th 2015 to discuss the PMV Report, the RBT2 project and the EIS process. At this meeting, Pacheedaht representatives and Chief and Council expressed concerns about significant error and oversights in the PMV Report and stated that the PMV Report did not accurately present information related to the Pacheedaht First Nation. An overview, with some analysis, of Pacheedaht concerns with the PMV Report, and the TERA Report on which it is based,[5] is presented in Appendix A.

After discussion between representatives of PMV and the Pacheedaht First Nation, it

[3] Port Metro Vancouver. 2015. Roberts Bank Terminal 2 Project, Marine Shipping Study: Pacheedaht First Nation, Current Use of Lands and Resources for Traditional Purposes – Summary of Existing Conditions - Draft. Vancouver Port Metro Vancouver.
[4] Nelson, Bryan. 2015. Correspondence to Pacheedaht Chief and Council, Re: RBT2 - Pacheedaht First Nation's Current Use in the Marine Shipping Area, 23 July, 2015. Vancouver: Port Metro Vancouver.
[5] TERA. "Supplemental Traditional Marine Resource Use - Marine Transportation Technical Report for the Trans Mountain Pipeline Ulc Trans Mountain Expansion Project." Calgary: CH2M Energy Canada, Ltd., 2014.

was determined that it would be best and most time efficient for Pacheedaht to produce a report tailored to the requirements of PMV and their supplementary EIS, rather than attempt to correct and update the PMV Report. The current report, and the appended PFN TMUOS Report, provide information concerning Pacheedaht that is more complete and accurate than that presented in the PMV Report.

RBT2 EIS

The presentation of Pacheedaht information in this report is informed by a number of specific RBT2 EIS Guidelines.[6] Particular attention has been given to topics referenced in the EIS Guidelines sections for:

- Aboriginal Engagement
- Aboriginal Traditional Knowledge
- Aboriginal Peoples
- Aboriginal Rights and Related Interests

Report Limits

The current report contains information on Pacheedaht's traditional and current use of the areas and resources within the Study Area defined below, as well as descriptions relevant to Pacheedaht's Aboriginal Interests, Rights and Title. This information is provided for the purpose of the preparation of PMV's Supplementary Environmental Impact Statement for the Roberts Bank Terminal 2 Project.

The appended PFN RBT2 Maps illustrate specific harvesting locations and culturally sensitive sites, are confidential to Pacheedaht and are provided to Port Metro Vancouver solely for the purpose of the Supplementary EIS for the RBT2 Project. The PFN RBT2 Maps should not be distributed or made public. Information in the report, other than the maps, is not considered confidential to Pacheedaht.

The current report provides information solely for the specified purposes, has been prepared within a limited time frame and should not be considered as comprehensive, definitive or fully representative of Pacheedaht Aboriginal rights, title, use, and interests.

Report Purposes

The purposes of the current report are to:

- provide information on Pacheedaht traditional and current use within the Study Area, described below;
- present information about Pacheedaht Traditional Use and Occupancy Sites (TUOS sites) according to the following categories:
    - Archaeological Sites

[6] Canadian Environmental Assessment Agency. "Updated Guidelines for the Preparation of an Environmental Impact Statement, Pursuant to the Canadian Environmental Assessment Act, 2012 for the Roberts Bank Terminal 2 Project Proposed by Port Metro Vancouver." Ottawa: Canada, 2015.

  - Culture History Sites
  - Dwelling Sites
  - Coastal Birds
  - Fishing Sites
  - Marine Invertebrates
  - Vegetation (Marine and Terrestrial)
  - Terrestrial Wildlife
  - Marine Mammals
  - Travel Sites

- provide information on Pacheedaht Traditional Ecological Knowledge, including species and their use;
- describe potential interactions between the marine shipping associated with the RBT2 and Pacheedaht First Nation traditional and current use sites;
- provide information on Pacheedaht concerns related to the marine shipping associated with the proposed RBT2 Project; and
- provide general information and context relevant to Pacheedaht Aboriginal Rights, Title and Interests.

A Pacheedaht First Nation Traditional Marine Use and Occupancy Study Report (PFN TMUOS), prepared for the Kinder Morgan TransMountain Expansion Project from 2014 is provided as a report appendix,[7] as the PFN TMUOS presents additional information beyond that included in the current report.

Study Area

The Study Area for the current report is derived from the Marine Spatial Boundaries specified at 17.1.2 of the RBT2 EIS. The Marine Spatial Boundaries consider marine shipping associated with the Project within Canada's 12 nautical mile limit. The Study Area includes areas with importance for Pacheedaht's Aboriginal Rights, Title and Interests, and Pacheedaht's traditional, current and future use of lands or resources which could be affected by marine shipping associated with the Project, including potential accidents and malfunctions.

The Study Area for this report includes all marine, intertidal and tidal influenced waters within Pacheedaht territory (see Figure 2), as well as marine areas used traditionally and currently by Pacheedaht people at Swiftsure Bank. The Study Area includes the terrestrial portions of Pacheedaht territory within 150 m. of marine shorelines, and within 40 m. of tidal influenced river waters, as these may be affected in the event of a worst-case scenario spill of fuel or other cargo, or resulting cleanup operations. The Study Area is illustrated on the PFN RBT2 Maps appended to this report.

[7] Pacheedaht First Nation. "Pacheedaht First Nation Traditional Marine Use and Occupancy Study (TMUOS) 2014 Final Report." Prepared by Pacheedaht Heritage Project and Traditions Consulting Services, Inc. Port Renfrew, B.C.: Pacheedaht First Nation, 2014.

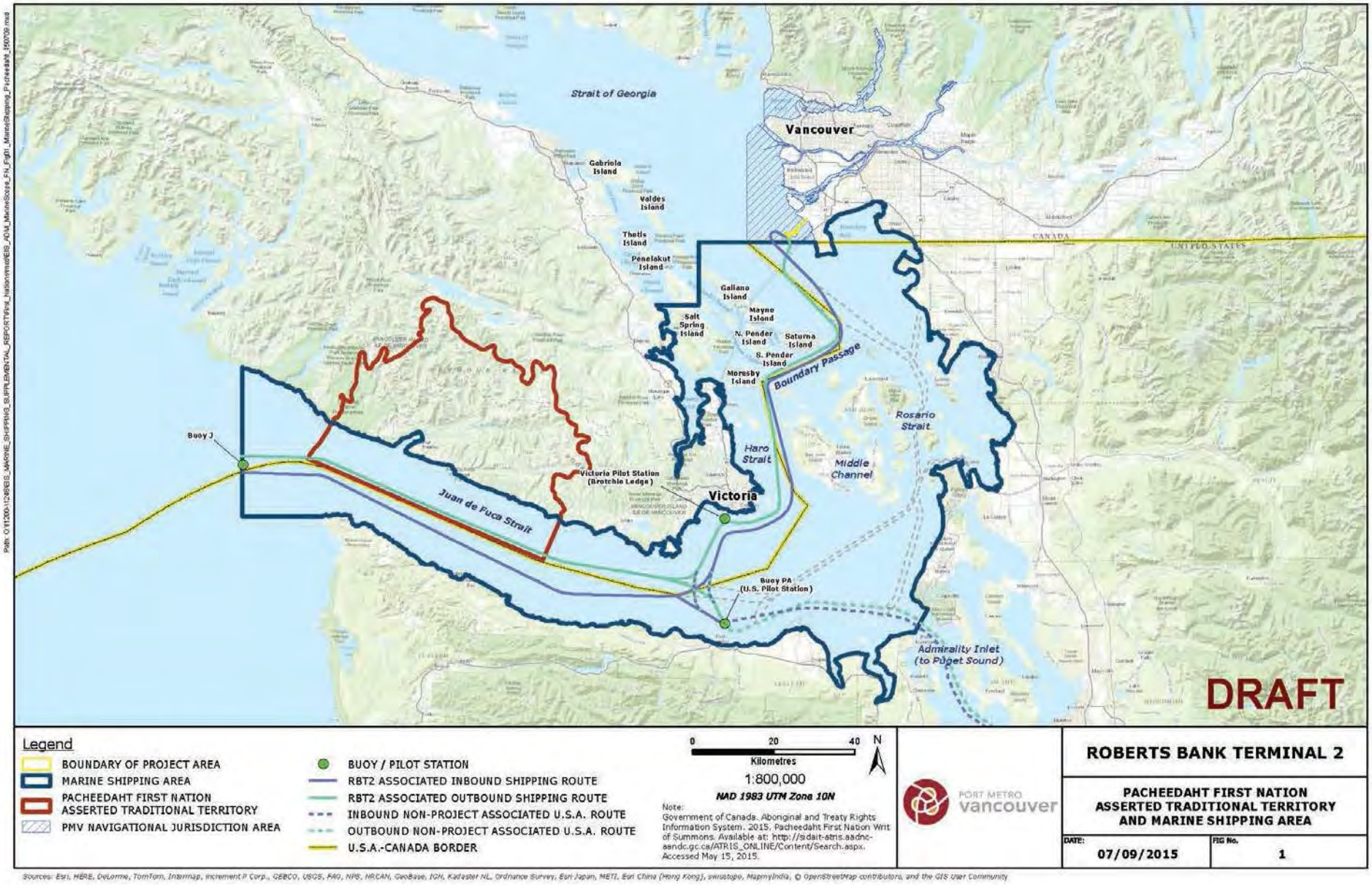

Figure 1: Pacheedaht Territory with RBT2 Marine Shipping Area.

Pacheedaht Culture and History Overview

The following report section is a summary drawn from a report section in the PFN TMUOS appended to the current report.

Available information indicates that the Pacheedaht have occupied their territory on an exclusive basis for several centuries at least, and that their occupation has been continuous to the present time. During much of this time, the Pacheedaht have lived, seasonally or permanently, at the village and camp locations listed below. These villages and camps are spread along shorelines and rivers throughout Pacheedaht territory (Figure 2). In the distant past and into the historic period, these locations were bases from which Pacheedaht members used and harvested an extensive range of resources for cultural, spiritual, sustenance, and economic purposes.

The name "Pacheedaht" translates into English as "Children of the Sea Foam" (or "People of the Sea Foam") and refers to a traditional history related later. Pacheedaht territory includes the lands and waters along the southwest coast of Vancouver Island between Bonilla Point at its western end, and Sheringham Point on the east (Figures 1 and 2).[8] The eastern boundary corresponds with information published by Wayne Suttles, an expert on Salish history and culture, who identifies Sheringham Point as the western boundary of the region where Northern Straits Salish was spoken by members of the T'Souke Nation.[9] The Pacheedaht's western boundary is the same as the eastern boundary of the Ditidaht First Nation. Pacheedaht also share Aboriginal fishing and harvesting rights at *?'uöu:?a:* (Swiftsure Bank) with Ditidaht First Nation and Makah Nation; members of many other First Nations also fish at Swiftsure Bank.

The Pacheedaht regard themselves as a distinct First Nation with a history in their territory that extends back through many centuries. Anthropologists refer to the Pacheedaht, and the neighbouring Ditidaht, as related by language and culture to the Nuu-chah-nulth First Nations whose territories are distributed along the west coast of Vancouver Island.[10] Pacheedaht people are related by kinship, language and culture to several other First Nations on Vancouver Island, but their closest relations are with the Ditidaht to the northwest, and with the Makah across the Strait of Juan de Fuca in Washington.

Pacheedaht Chief Queesto Charlie Jones, who was born ca. 1876 and lived to be over 100 years old, estimated that the Pacheedaht numbered 1,500 people or more before diseases, brought by white explorers, traders and settlers, were introduced into

---

[8] Charles Jones Sr. and Eugene Arima. Annotated Map of Juan de Fuca Strait Depicting Pacheedaht Place Names." Unpublished manuscript. Pacheedaht First Nation. Port Renfrew, BC, 1973-1974.
Richard Inglis and James C. Haggarty. "Pacific Rim National Park Ethnographic History." Parks Canada Report Series No. 257. Calgary: Manuscript on file with Parks Canada, Western Region, 1986. p. 209.
Randy Bouchard, "Preliminary Notes on the Pacheenaht Indian Knowledge and Use of the Area between Jordan River and San Juan Point." Report prepared for I.R. Wilson Consultants Ltd. and BC Parks. Victoria, 1994. p. 33.

[9] Wayne Suttles. "Central Coast Salish." In: *Handbook of North American Indians, Volume 7, Northwest Coast*. Edited by Wayne Suttles, 453-75. Washington, D.C.: Smithsonian Institution, 1990. p. 456.

[10] Eugene Arima and John Dewhirst. "Nootkans of Vancouver Island." In: *Handbook of North American Indians, Volume 7, Northwest Coast.* Edited by Wayne Suttles, 391- 411. Washington, D.C.: Smithsonian Institution, 1990. pp. 391, 393.

Pacheedaht territory.[11] Pacheedaht ancestors' traditional seasonal round included taking up residence at several locations through the course of an average year in order to take advantage of locally or seasonally abundant resources. Pacheedaht villages and camps were spread throughout the territory, especially along the coastline and on the banks and mouths of larger rivers. Four to six families, each with their own fireplace, would occupy a typical Pacheedaht bighouse.[12]

Following are the names and locations of known Pacheedaht villages, houses, or campsites, listed in a generally east to west direction, and as portrayed in Figure 2:[13]

- *q^{w}a?a·q^{w}'a* – the Pacheedaht name for Kirby Creek and for the Pacheedaht village, a salmon fishing station, located on the west bank about 600m up from the river mouth. The site is in the lee of Shirley Hill, out of the wind, and on high ground so it does not flood.[14]

- *bakułqawa?* – the Pacheedaht name for Sheringham Point, also known as "Store Point." According to Ida Jones, the Pacheedaht went in summer to coastal villages at Sombrio River, Jordan River, and at *bakułqawa?* to fish, and Pacheedaht Chief Queesto had houses at each of these locations.[15]

- *ke:?ioadl* – a summer fishing village located at Point No Point for offshore fishing. The village was used until 1884, and people continue to fish in this area. Eight long houses were located at Point No Point.

- *?i?i:bic'aqpi?s* – an ancestral village of the Pacheedaht, located on the eastern side of the mouth of Jordan River.

- *Diitiida* – a large village at the mouth of Jordan River where there may have been as many as twelve bighouses. The original village of *Diitiida* was located on the west side of Jordan River.

- *Tł'ehib* – a village between Magdalena and Simon Points at Boulder Beach with room for six to eight bighouses and canoe runs in front.

- *Qwa:qtłis* – a fishing and seafood gathering village located near the mouth of Sombrio River.

---

[11] Charles Jones and Stephen Bosustow. *Queesto, Pacheenaht Chief by Birthright.* Nanaimo, B.C.: Theytus Books. 1981. p. 21.
[12] Eugene Arima, Denis St. Claire, Louis Clamhouse, Joshua Edgar, Charles Jones, and John Thomas. "From Barkley Sound Southeast." In: *Between Ports Alberni and Renfrew: Notes on West Coast Peoples. Canadian Ethnology Service, Mercury Series Paper,* 203-411. Hull, Quebec: Canadian Museum of Civilization, 1991. p. 280.
Arima, Eugene. " Notes on the Southern West Coast (Nootka) Natives: Environment and Exploitative Techniques of the P'achi:da7ath of Port San Juan." Unpublished manuscript. National Historic Parks and Sites Branch, Parks Canada. Ottawa; Copy held at Archaeology Division, Royal British Columbia Museum, Victoria, 1976. pp. 27-40.
[13] Arima et al., *Barkley Sound Southeast*, 1991 p. 278-280. Additional village information from interviews with Ida Jones and Chuck Jones.
[14] Jones, Charles Jr., and Roberta Jones. 1998. Interview: transcription notes of Charles Jones Jr. and Roberta Jones interview with John Dewhirst and Chris Mundigler at Gordon River Reserve, 10 February 1998. In *Pacheedaht Traditional Use Study. Interview catalogue number: Pach056*. Port Renfrew, BC.
[15] Jones, Ida. 1993. Statutory Declaration of Ida Jones translated to her by her daughter Flora Charles, signed by the Commissioner for taking Affidavits for BC, 8 October 1993. Pacheedaht First Nation: Port Renfrew, BC.

- *ɬi:xwa:p* – a winter village of six small houses on top of a bluff at Botanical Beach; this was also a defensive site; the sides of the site were dug off to be steep, only the back was accessible from land.

- *ʔapsawaʔ* – a winter village of eight houses behind Cerantes Rock at the south side of the entrance to Port San Juan. A narrow channel led to this village location, and it was hard to get in and out with canoes. Skids were built down to the water for hauling canoes up sideways onto the bank. This site was occupied when all the other good village sites in Port San Juan were filled up.

- *K'oʔobaʔ* – a village of twelve to fifteen houses at Robertson Cove.

- *Bo:ʔapiʔis* – a winter village with about a dozen houses located at the current site of Port Renfrew.

- *K'witibiʔt* – a large permanent village that included twenty houses; it was spread out along the shore of Port San Juan from the cove at the mouth of the San Juan River nearly a mile to Snuggery Cove, including the present Beach Camp area. The location is a natural dwelling site for people, featuring a well-sheltered beach and accessibility by canoe in all weather and at all tides. There is a knoll for defensive purposes, also a lookout point up the bay, and in the past there was an abundance of seafood available along this shoreline.

- *P'a:chi:da?* – this was the main Pacheedaht village and it was spread out along the beach that extends between the mouths of the north and south branches of the San Juan River. Pacheedaht Indian Reserves #1 and #2 are located at this site.

- *Tɬ'i:xsit* – a large village located at the mouth of a creek on the south channel, 2.5 km up the San Juan River that was occupied during the summer months for harvesting and drying of salmon.

- *Tłołasiʔ* – the "flat" at Fairy Lake was a summer fish camp where salmon were dried.

- *ʔaʔaqwaxtas* – a village on the north side of the mouth of Fairy Lake on the north side of the San Juan River.

- *Kwi:sidok'waʔ* – a fishing camp located at the mouth of Harris Creek on the San Juan River.

- *Tɬ'oqwxwat'* – a summer fishing village on the Gordon River where salmon traps were set in the river from April to October.

- *ʔo:yats'* – a year round village with eight houses at Thrasher's Cove on the northwest side of Port San Juan.

- *K'adataʔs* – a small winter trapping camp, with three houses a half mile from Owen Point on the northwest side of Port San Juan.

- *Qawö adt* – there was a small village at *Qawö adt* (Camper Bay) with three or four houses, but its Pacheedaht name has not been recorded.

- *Qala:yit* – a large permanent village east of Bonilla Point that was occupied year round. This village, located on what is now Cullite Indian Reserve #3, provided excellent access to *?'uöu:?a:* (Swiftsure Bank) and other prime fishing grounds, sea mammal hunting grounds, and seafood gathering sites. The people living here did not need to eat much dried fish during winter as fresh halibut, cod and red snapper were available nearby.

These villages were, and are, important to the Pacheedaht for the harvesting of resources and are part of their cultural identity. Pacheedaht ancestors selected their village sites based on a variety of factors such as availability of critical resources, quality of resources, suitability for launching and landing canoes, exposure to wind and waves, defensive features, and sightlines. In particular, the Pacheedaht selected their village and camp locations to take advantage of the resources in local and regional areas, and at other locations throughout their territory. All Pacheedaht villages are located on or near a marine, river or lake shoreline, reflecting Pacheedaht's traditional marine orientation and reliance on aquatic and marine resources.

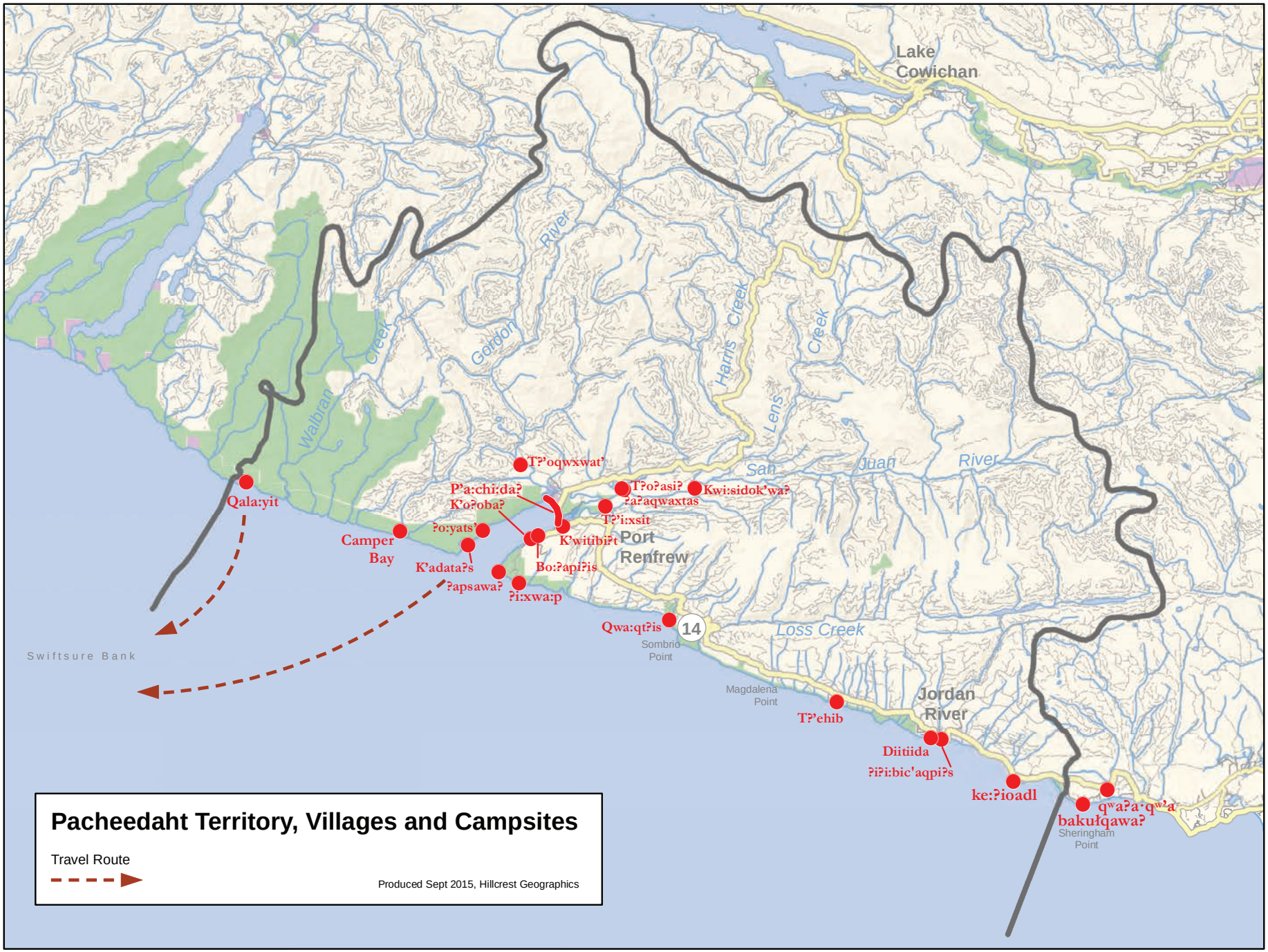

Figure 2: Pacheedaht Territory with Villages and Campsites.

Pacheedaht Traditional Histories

Traditional narratives present aspects of the worldviews, cosmology and history as perceived and recorded by First Nations' members. There are a number of traditional Pacheedaht and Ditidaht narratives that describe some of the early history of Pacheedaht people, their origin, and how they came to occupy their territory. These narratives illustrate the Pacheedaht's long occupation of, and strong connection with, their territory.

One short account describes that, in the preflood area, "only the village *di.ti.da?* [at] Jordan River existed. There were three brothers living in *di.ti.da?* who moved away. One settled at *ca.di.* on Tatoosh Island off Cape Flattery. From him descend the Makah people. A second brother settled at *pa.ci.da?* Port Renfrew and the eldest settled at *wa.ya.ʔaq* on the south side of the outflow from Nitinaht Lake to the Ocean. From these four sites the Nitinaht and Makah populations grew…"[16]

Along with other indigenous peoples around the world, the Pacheedaht and Ditidaht have traditional histories about a Great Flood that occurred long ago. One traditional history describes an ancient time before the Great Flood when the Pacheedaht and Ditidaht occupied the villages of *di.ti.da?* and *?i?i:bic'aqpi?s* at Jordan River.[17] During the Great Flood, the Ditidaht were carried away in a canoe, eventually landing in their territory at the mouth of Nitinat Lake.

Another account, told by Chief Peter of the Pacheedaht to linguist Morris Swadesh in 1931, gives details of the migration of the Ditidaht from Tatoosh Island to Jordan River, where they joined, for a period of time, with the Pacheedaht.[18]

Chief Queesto, Charlie Jones, described how the name *P'a:chi:da* came to be given to the San Juan River, to the village at the river mouth, and to the Pacheedaht First Nation itself:

> Our band name was changed to the name of the river because, after the Ditidaht people had been living here for a long time they discovered something new and strange. Some distance upstream, about 2 ¼ miles from the river's mouth, there was some kind of strange-looking foam forming in the water. There was so much of it that it covered the river banks to about eight feet above the level of the river itself. Everyone was very excited about the discovery of this foam, and everyone wanted to find out what it was. So they decided to get someone to taste it. They chose an old lady slave for the task – this was in the days when our people still kept slaves – as it was thought she was expendable, I

[16] Thomas, John, and Thom Hess. "An Introduction to Nitinaht Language and Culture." Victoria, BC: Department of Linguistics, University of Victoria, 1981. p. 158.
[17] Bates, Ann M. "Affiliation and Differentiation: Intertribal Interactions among the Makah and Ditidaht Indians. Unpublished Phd Disseration." Indiana University, 1987. pp. 290 – 293.
[18] Swadesh, Morris, and Mary Haas. "Nitinat Field Notebooks " American Philosophical Society Library, Franz Boas Collection of American Linguistica, Edward Sapir Nootka Materials, W2b.2, 372.1, Microfilm reels 51 and 52. Philadelphia, 1931. Notebook iv, pp. 23 -32. Translated copy by John Thomas at Royal BC Museum, West Coast Project Files, Folder Nitinaht.

> suppose. Some of the men took her up the river and told her to taste the foam and tell them what it was. She picked up some of the foam with her fingers and put it in her mouth, and finally she said that it didn't taste like anything at all. It was salty though, like sea-foam. So they decided it was sea-foam, and everyone went back down the river to the village. They all talked it over and decided that the proper name for it was Pacheeda, which means "sea foam." Ever since that time, we have called ourselves the Pacheedaht, the Children of the Sea Foam.

The Pacheedaht in Historical Records

A brief summary of information about the Pacheedaht, drawn from historical sources, documents the Pacheedaht's continuous occupation and use of their territory from earliest times.

The first written account of contact between the Pacheedaht and white explorers or traders originates with Robert Duffin, a member of Englishman John Meares' fur trading expedition to the west coast of Vancouver Island in 1788.[19] When Duffin's boat entered Port San Juan, he and his crew were met by Pacheedaht canoes filled with armed people. During the ensuing battle, Duffin reported that some Pacheedaht were killed or wounded by gunshots, while arrows and other missiles wounded Duffin and some of his men, some quite severely. The Pacheedaht's defense of their territory forced Duffin to depart Port Juan.

In 1789, the American ship *Columbia* visited Port San Juan. The crew recorded the name of the inhabitants of Port San Juan as "Patchenat."[20] A few months later, the Spanish vessel *Santa Gertrudis*, under the command of José María Narvaez, entered Port San Juan.[21] In June of 1790, another Spanish vessel, the *Princessa Real*, under the command of Manuel Quimper, visited Port San Juan on a voyage of exploration.[22] Records from Quimper's expedition document that the Pacheedaht villages in Port San Juan contained 300 people.[23] A map produced by Lopez de Haro in 1790 shows Port San Juan and the locations of two Pacheedaht villages (marked "Rancheria"), one at the mouth of the north arm of the San Juan River, and the other at the mouth of the south arm of the San Juan River.[24]

---

[19] John Meares. *Voyages Made in the Years 1788 and 1789, from China to the North West Coast of America*. 2 vols. Vol. II, London: Logographic Press, 1790. Appendix No. IV.

[20] F.W. Howay, ed. Voyages of the "Columbia" to the Northwest Coast, 1787-1790 and 1790 -1793. Boston, Massachusetts Historical Society, 1941. (Reprinted by The Oregon Historical Society, 1990). p. 72.

[21] Esteven Jose Martinez. "Diary of 1789 Voyage to Nootka. Translated from Spanish Copy in Bancroft Library by William L. Schurz." Victoria, B.C.: B.C. Archives, Add.Ms. 291, 1789. p. 130.

[22] Wagner, Henry R. "Quimper's Diario, 1790 (Extracts)." In: *Spanish Explorations in the Strait of Juan de Fuca*, 91-132. Santa Ana, California: Fine Arts Press, 1933. Reprint A.M.S. Press, 1971. pp. 92- 93.

[23] Manuel Quimper. "Descrision General Del Estrcho De Juan de Fuca." Mexico City: Archivo General de la Nacion, Historia, Tom. 68. Typescript at BC Archives AA10M57, v.6, 1790.

[24] Wagner, Henry R. 1933. "Spanish Explorations in the Strait of Juan de Fuca." In *Spanish Explorations in the Strait of Juan de Fuca*, Santa Ana, California: Fine Arts Press.

William Banfield, a white trader, authored a newspaper account in 1858 that described the Pacheedaht as numbering about 20.[25] Banfield noted that their numbers had been recently and drastically reduced due to smallpox epidemics and a conflict with the Songhees. Banfield added that the Pacheedaht made their livelihood from fishing, hunting and trading. Trade in dogfish oil and halibut with the Sooke, Clallam and Songhees was particularly profitable. The Pacheedaht also procured bear, raccoon and mink skins for sale to white traders.

Robert Brown, leader of the Vancouver Island Exploring Expedition, visited Port San Juan in 1864. In 1896, Brown published some of his observations about the Pacheedaht, based on his 1864 journal entries.[26] He described that the Vancouver Island shoreline opposite Cape Flattery was the "special territory" of the "Pachenahts," whose numbers were at the time severely reduced due to wars with the Clallams and Makahs and owing to the effects of smallpox.

After British Columbia confederated with Canada, the Superintendent of Indian Affairs, Dr. I.W. Powell, visited the Pacheedaht in July of 1875. Powell reported in general on the "Ahts," meaning those tribes inhabiting the west coast of Vancouver Island, writing:[27]

> ...They care very little for, and their knowledge of agriculture, is exceedingly limited. Indeed facilities for obtaining support, and even plenty, from other and more profitable means are so great, and the extent of cultivable land is so limited, that Nature has furnished these rude savages with every requisite to make them what they really are, "Toilers of the Sea." And happily so - for placed where they are, they can never become tillers of the soil….
>
> … Salmon is their great staple, and their winter stores are taken in August and September from the extensive inlets and rivers with which the whole coast is intersected. Many other varieties of fish, such as halibut, cod, herring & c., are obtained in any quantity, and with the greatest facility….
>
> The Ahts have strict customs in regards to their exclusive right to everything their country produces. The limits of tribal properties, or tribal claims, to land are clearly defined…."

[25] William E. Banfield. "Vancouver Island: Its Topography, Characteristics, Etc.: II the Netinett District." *Victoria Gazette*, 14 August 1858, p. 1. This population figure seems low compared to those provided before, by Quimper in 1790, and later, by Brown in 1864.
[26] Robert Brown. "Introduction." In: *The Adventures of John Jewitt*, edited by Robert Brown. London: Clement Wilson, 1896.
[27] Powell, I.W. "Correspondence: Powell, Commissioner of Indian Affairs, 31 October 1874." Library and Archives Canada. RG 10, Volume 3614, File 4105, Microfilm reel C-10107. Reports on the West Coast of Vancouver Island and of Barclay Sound (Map, Census, Report). Ottawa, 1874.

Indian Reserve Commissioner Peter O'Reilly visited the Pacheedaht in 1882 to establish Reserves.[28] He initially established two Indian Reserves, at Pacheena IR #1 and at Gordon River IR #2. His correspondence and Minutes of Decision for these two Reserves make it clear they were established for the purpose of securing the Pacheedaht with their traditional supply of salmon. Further, in recognition of the special importance of this resource, O'Reilly took the unusual step of reserving to the Pacheedaht the right to fish in both branches of the lower San Juan River.

Although he was unable to visit the Pacheedaht village at Cullite (*Qala:yit*), some five miles from Port San Juan (Map 1), O'Reilly recognized the importance of this location as a fishing station, and that the Pacheedaht were expert and prosperous fishermen. He wrote in his Minutes of Decision:[29]

> The salmon fisheries on both the North and South Branches of the San Juan River are very valuable, as supplying the entire wants of the tribe with this staple article of consumption; the right to fish has been reserved to them on both branches from the head of tidal water to the Forks, a distance of about two and a half miles.
>
> The halibut, and dogfish station of this tribe is situated at Cullite on the west coast of Vancouver Island, which I passed but was unable to visit owing to the heavy sea which was then running; this must be attended to at some future time.
>
> These Indians being expert fishermen are largely employed by the sealing schooners which frequent this coast during April, May and June, they also obtain a quantity of fish oil for which they find a ready market, and were it not that their hard earned money is wasted in drinking, gambling and making potlatches, they would be a prosperous community.

Several years later, in 1890, O'Reilly was finally able to visit *Qala:yit* (Cullite), which he established as Cullite IR #3. He noted that as "a halibut and dogfish station this [village] is much valued by the Indian, it is the only place within many miles where a canoe can land with safety."[30] *Qala:yit* also provided access to the rich fishing grounds at *?'uöu:?a:* (Swiftsure Bank). Later, in 1894, O'Reilly established a 28-acre fishing station on the west bank of Harris Creek at the San Juan River as Queesidaquah Indian Reserve #4.[31] The four Indian Reserves established for the Pacheedaht comprise but a

[28] Harris, Cole. Making Native Space - Colonialism, Resistance and Reserves in British Columbia. Vancouver: UBC Press, 2002. pp. 73-174.
[29] O'Reilly, Peter. "Minutes of Decision: Pacheena Indians, 18 October 1882." In A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 10: File 29858-3, Volume No. 10. Minutes of Decision, Correspondence & Sketches - P. O'Reilly, June 1882 to February 1885, 319-25. Ottawa, 1882.
[30] O'Reilly, Peter. "Correspondence: O'Reilly, Indian Reserve Commissioner to Superintendent General of Indian Affairs, 3 March 1890." In A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 12: File 29858-5, Minutes of Decision, Correspondence & Sketches - P. O'Reilly, April 1889 to January 1892, 298-302. Ottawa, 1890.
[31] Peter O'Reilly. "Minute of Decision of IR #4, October 30,1894." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1894.

tiny fraction of Pacheedaht territory. The Royal Commission on Indian Affairs for the Province of B.C. (RCIABC) visited the Pacheedaht in 1914, and the Pacheedaht took the opportunity to express their general dissatisfaction with their Reserves.[32]

Commencing in 1881, the Indian Agent for the West Coast Agency submitted an annual report that was published by the Department of Indian Affairs.[33] Some of these reports contain general information about the Nuu-chah-nulth, and their use of marine resources, particularly in fishing and sealing. The 1910 West Coast Indian Agency report stated:[34]

> The Indians of this agency may be said to live on the water and by the water. All their houses are built close to the water, the Pacific ocean or some inlet thereof, and it is from the ocean in one way or another that they derive their livelihood. Sealing and salmon fishing are the two occupations that engage the attention of the bulk of the people.

In summary, available descriptions of the Pacheedaht from historical records describe them as occupying their territory on the west coast of Vancouver Island on an exclusive basis from the Contact period and forward. Further, the records describe the Pacheedaht as having a marine and aquatic orientation, obtaining much of their livelihood, sustenance, material for trade, and wealth from their ocean and rivers.

Pacheedaht Use of Marine Resources

Prior to and at the time of Contact, the Pacheedaht economy, including trade, relied primarily on marine resources. Pacheedaht people earned their livelihood from the ocean, and much of the same reliance applies today for sustenance, economic opportunities, and future eco-tourism based business models. A select number of references, describing the importance of marine resources to the Pacheedaht, are presented below. Additional references are included in the appended PFN TMUOS.

There are many accounts from early European and American exploration and trading voyages to the west coast of Vancouver Island that describe the extent to which native people of the region relied on marine resources. One detailed example, written by English explorer Capt. Cook based on his observations at Nootka Sound in 1776, is presented here:[35]

> Though their food, strictly speaking, may be said to consist of every thing animal or vegetable that they can procure, the quantity of the latter bears an exceedingly small proportion to that of the former. Their greatest reliance seems to be upon the sea, as affording fish, muscles, and smaller shell-fish, and sea animals. Of the fish, the principal are herrings and sardines; the two species of bream formerly mentioned; and small cod. But the herrings and sardines are not only eaten fresh, in their season, but likewise serve as stores, which, after being dried and smoked, are preserved by being

[32] Royal Commission on Indian Affairs for the Province of B.C. "Meeting with the Pacheedaht on their IR #1 Reserve on May 6, 1914." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1914.
[33] Library and Archives Canada. "Indian Affairs Annual Reports, 1864-1990." www.collectionscanada.gc.ca, http://www.collectionscanada.gc.ca/databases/indianaffairs/index-e.html.
[34] Library and Archives Canada. *Indian Affairs Annual Reports*, 1905 Annual Report.
[35] Cook, James. A Voyage to the Pacific Ocean, Book IV. Volumes 1 and 2 Written by Captain James Cook, Volume 3 Written by Captain James King. London: H. Hughs, 1784. pp. 320-322.

> sewed up in mats, so as to form large bales, three or four feet square. It seems that the herrings also supply them with another grand resource for food which is a vast quantity of roe, very curiously prepared. It is strewed upon, or, as it were, incrustated about, small branches of the Canadian pine. They also prepare it upon a long narrow sea grass, which grows plentifully upon the rocks, under water. This caviare [sic], if it may be so called, is kept in baskets or bags of mat, and used occasionally, being first dipped in water. It may be considered as the winter bread of these people, and has no disagreeable taste. They also eat the roe of some other fish, which, from the size of its grains, must be very large; but it has a rancid taste and smell…For though they split and dry a few of the bream and chimaerae, which are pretty plentiful; they do not smoke them as the herrings and sardines.
>
> The next article, on which they seem to depend for a large proportion of their food, is the large muscle [sic]; great abundance of which are found in the Sound. These are roasted in their shells, then stuck upon long wooden skewers, and taken off occasionally as wanted; being eaten without any other preparation, though they often dip them in oil, as a sauce. The other marine productions, such as the smaller shell-fish, though they contribute to increase the general stock, are by no means to be looked upon as a standing or material article of their food, when compared to those just mentioned
>
> Of the sea-animals, the most common that we saw in use amongst them, as food, is the porpoise; the fat or rind of which, as well as the flesh, they cut in large pieces, and having dried them, as they do the herrings, eat them without any further preparation
>
> …
>
> It may also be presumed that they feed upon other sea-animals, such as seals, sea-otters, and whales; not only from the skins of the two first being frequent amongst them, but from the great number of implements, of all sorts, intended to destroy these different animals. Which clearly points out their dependence upon them; though perhaps they do not catch them in great plenty at all seasons; which seemed to be the case while we lay there, as no great number of fresh skins, or pieces of the flesh, were seen.

Later records make it clear that the Pacheedaht were profitably engaged in fishing and selling marine products to native markets as well as with white traders.

The Pacheedaht were expert whalers, as first recorded by crew of the *Columbia* in 1792 who purchased whale oil from the Pacheedaht. Chief Queesto recalled that before the white man came, the Pacheedaht used whale oil instead of money – the whale oil could be exchanged for blankets, rice, beans, potatoes, sugar, biscuits and other goods.[36]

Sea otters were also hunted intensively, and Chief Queesto recalled that his father used to make a lot of money catching sea otters, trading sea otter pelts from Quinault with the Hudson Bay Co. in Victoria.[37] Sea otter populations became nearly extinct from overhunting, but have since been re-introduced to the west coast of Vancouver Island, and are now re-

[36] Jones, *Queesto,* 1981, p. 54.
[37] Jones, *Queesto,* 1981, p. 37.

establishing themselves. The listing of the species has been changed from threatened to special concern by the Wildlife Act.

Commercial fur seal hunting began in the 1870s, another extremely profitable enterprise, and allowed many native families to earn large sums from the harvest of marine resources. In 1874, George Blenkinsop was commissioned by the Department of Indian Affairs to investigate the native tribes in Barkley Sound, near the Pacheedaht at Port San Juan. In his report, he observed:[38]

> Without any question these people are the richest in every respect in British Columbia, and were a proper disposal made of their immense gains they could furnish themselves with every comfort that they could possibly wish for. There is scarcely any limit to their resources, and it is not too much to say that each Indian could earn from their sealing grounds and fisheries at least $1,000 per ann.[39]…At present many obtain during the year from these two sources from five hundred to seven hundred dollars. I have authority for making these assertions.

Chief Queesto recalled the imporance of the fur seal hunt:[40]

> At one time, seals were a major source of meat for the people of this area. Seals were to the Indians what cows are to the white man. When I was a boy, my father taught me how to harpoon seals from the bow of a canoe. In the old days, we would go out in 40 foot long canoes and hunt seals off Cape Flattery. My father used to take the seal pelts to Victoria to trade with the Hudson's Bay Company at their trading post. I can remember one time we caught 58 seals, using spears, because rifles were against the law at that time. My father would leave our village at two o'clock in the morning, April through May, to go seal hunting. The Hudson's Bay Company paid him $42 for each No. 1 skin, $32 for mediums, all the way down to $7 for the smaller ones. At this rate of pay, my father could make between nine and fourteen thousand dollars a year.

Over the decades, commercial and sports fisheries in British Columbia have become subject to an ever increasing range of regulations and restrictions regarding licensing and practices, developed by the Department of Marine and Fisheries and its successor ministries, now Fisheries and Oceans Canada. For the Pacheedaht and other native fishermen, who, prior to Contact and throughout the Colonial period, had been engaged in a thriving economy based on the harvest, trade and sale of marine products, the result of the imposition of federal fisheries regulations has been most severe.

A recent court case, *Ahousaht Nation et al. v. Canada,* concluded that the Plaintiff Nuu-chah-nulth First Nations, Pacheedaht neighbours, have aboriginal rights to fish in their traditional territories and sell that fish into the commercial marketplace.[41] Much of the

[38] Blenkinsop, George. "Report to I.W. Powell, Commissioner of Indian Affairs, by G. Blenkinsop, 23 September, 1874." Ottawa: Department of Indian Affairs, RG 10, vol. 3614, file 4105, 1874.
[39] For purpose of comparison, in 1874, Indian Agents' annual salaries were in the range of $400 - $500. Annual Report for the Department of the Interior for the year ended 30th June, 1874. Part 2. Department of Interior. Ottawa: Canada, 1875. p. 71.
[40] Jones, *Queesto,* 1981, p. 35.
[41] Kirchner, F. Matthew. "The Aboriginal Right to Sell Fish, Ahousaht Nation Et Al. V. Canada." (2010). http://www.ratcliff.com/sites/default/files/publications/The Aboriginal Right to Sell Fish.PDF.

evidence presented in that case is similar to that available for the Pacheedaht, who, for the purposes of the case, were considered a Nuu-chah-nulth First Nation.

Today, many Pacheedaht people continue to fish vast quantities for food, social and ceremonial purposes, and the nation also benefits economically through licenses managed by Pacheedaht's Fishery Department. Individual members go out in small boats, and fish throughout the offshore portion of Pacheedaht territory, with *?'uöu:?a:* Swiftsure Bank) being one of the preferred areas. The Pacheedaht hold important annual community fishing events that target coho and spring salmon runs in the San Juan River, and some individual members fish with nets in the San Juan River as well. There are also regular feasts of crab, gooseneck barnacles, mussels, chitons, and other seafoods, all harvested by community members.

The fisheries that remain abundant are of overwhelming importance to Pacheedaht members, and any additional reduction, of any magnitude, in Pacheedaht members' access to those fisheries, or further degradation of fisheries resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights. The traditional Pacheedaht fisheries at *?'uöu:?a:* (Swiftsure Bank) have gained additional significance for Pacheedaht members as these are currently healthier and more abundant than those at other locations. It is a primary harvesting location for much of Pacheedaht's FSC fishery.

Species Table

Species and Use

Over centuries, the Pacheedaht gained an encyclopedic knowledge concerning all aspects of their territory including its geography and resources. Pacheedaht members amassed a wealth of knowledge about their territory based on direct personal observations and experiences. This information has been continuously developed, verified and expanded as it has passed down through generations, up to the present-day.

Pacheedaht people have harvested, and continue to harvest, the species and resources listed in the following tables at locations where they are known to be abundant, accessible and/or have special qualities. The tables include the following information as requested by PMV:

- location of resource
- access to location
- timing of harvest
- specific target species
- how it is utilized
- cultural values associated with the harvesting of particular resources at specific locations
- broader context information on traditional economy and knowledge that are not site specific

Aquatic Birds

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
da.ẋat'č	Mallard Duck	*Anas platyrhynchos*	Ducks and other intertidal birds are hunted on beaches, rocky shorelines, marshes, river estuaries, tidal zones, and tidal flats. Ducks, particularly Mallards, are hunted at these sites while they feed on eelgrass at low tide during the winter. Offshore, Pacheedaht traditionally hunted ducks, including mallards, geese and surf scoters from camouflaged small canoes with blinds. Traditionally, ducks were caught with bird nets made from the inner bark from cottonwood was twisted together with yellow cedar. Mallards are currently hunted near the mouths of the Gordon River and San Juan Rivers and at other locations. Pacheedaht members continue to hunt, using guns, various types of mallards, ducks and other intertidal birds today. Mallards are eaten and the feathers used in pillows and mattresses. They supply rich nutrients during the winter months, and are a favorite food of the elders.
kux^{w}wa.š	Surf Scoter	*Melanitta perspicillata*	Scoters are hunted in the Gordon River estuary when the river is frozen, and while ducks are feeding on shellfish, marsh vegetation, and sea grasses. They could be caught in the winter months in volume enough to make soup for the entire band, a favorite food at feasts and other communal events.
ca.pid	Common Merganser	*Mergus merganser*	Mergansers are hunted in the estuaries of the Gordon and San Juan Rivers and elsewhere. The merganser populations have steadily increased, which is associated with the rich supply of salmon fry in the river estuaries. Traditionally hunted with above-water nets, made of stinging nettles; the nets were rigged with weights so they would fall on a ducks in flight. Currently, they are hunted by Pacheedaht members with guns.
tipi.ẋ	Bufflehead Duck	*Bucephala albeola*	Buffleheads seek refuge from winter storms in the calm inlets and bays, such as at Port of San Juan and Sombrio. They feed on the crustaceans and mollusks at low tide during the winter. Traditionally, Pacheedaht hunters camouflaged their canoes to get near enough to shoot the birds with bow and arrow. The arrow was specially crafted for duck hunting. It consisted of a red cedar shaft about 6 ft. long armed with a V-shaped head made of two points of split antler or deer-leg bone. The bow was made of yew, strengthened by a tapered ridge down the outside. Today, Pacheedaht hunters use guns.
	Common Goldeneye	*Bucephala clangula*	Goldeneyes frequent the bays in wintertime, and are also hunted in the estuaries of the Gordon and San Juan River. Used for winter food, and for their feathers. Hunted currently by Pacheedaht members with guns.
ha.daq	Goose (Brant)	*Branta bernicla*	Brant Geese winter in Pacheedaht territory. The geese feed on eelgrass and other foods at low tide during the winter. They move to saltwater areas when the rivers are frozen. Hunted with guns at the estuary of the Gordon River, and in the marsh of the San Juan River during winter low tides. Shared throughout the Pacheedaht community as a winter food source.

Pacheedaht Name	**Common Name**	**Scientific Name**	**Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use**
quaup	Trumpeter Swan	*Olor buccinator*	Swans stop in Pacheedaht territory during their winter migration south, and find bays and coves where they eat and rest. Hunted at the estuary of the east bank of the Gordon River while they fed on the eel grass on the marshland; when the river froze it confined the swans to the salt water estuaries and made them an available food source in winter. Swans are not commonly hunted by the Pacheedaht currently, but are an admired sight.
hatu.badi	Whistling Swan	*Olor columbianus*	During the 1940s hundreds of Whistling Swans stopped in the estuaries of the Gordon and San Juan Rivers to rest during their southern migration. This illustrates the importance of the Port of San Juan as a safe haven for migrating birds during times of stormy activity on the Pacific. Food source during winter months.
	Spruce Grouse	*Falcipennis canadensis*	Grouse are hunted during winter low tides when the rivers are frozen, when the grouse are feeding in the marshland to the west of Gordon River. Used at a food source in winter; currently hunted with guns by Pacheedaht members.
	Rufous Hummingbird	*Selasphorus rufus*	Frequent visitors to the coastal flowering berry bushes during the spring and summer months. They are even seen offshore while fishing the coastline, and even as far out as Swiftsure Bank. Snail slime was put on Indian paintbrush to catch hummingbirds. Hummingbird skins were used in making ceremonial hats and other regalia. Pacheedaht do not currently hunt the hummingbird, but they are highly revered in stories, arts, and as spiritual icons.

Coastal Mammals

Pacheedaht Name	**Common Name**	**Scientific Name**	**Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use**
buwač	Coastal Deer	*Odocoilius hemionus columbianus*	Traditionally, Pacheedaht hunted deer along the Sombrio River, near Minute Creek, Parkinson Creek and along other productive creeks and rivers. There are also many sites up the San Juan and Gordon River estuaries that were accessed by the coast via canoe. In the 1930s, deer were hunted at Walbran Creek and in the Walbran Valley and in many locations along beaches. Deer were traditionally and are currently hunted for meat, hides, and tools that were made from the bones. Deer were hunted in the winter for immediate consumption, and can now be processed and frozen or made into jerky. Deer were and are hunted in Pacheedaht territory, particularly along waterways and beaches; intertidal areas and along rivers is where they stop to drink and graze on estuary grasses and seaweeds. Deer meat is shared amongst community members and for use at potlatches, feasts, funerals and other ceremonial occasions. Pacheedaht also traded deer meat with local farmers for produce such as vegetables, beef, pork, eggs and milk. Deer meat is valued as it provides variety for a primarily fish and seafood diet. Drums are made from deer skin. Deer skins were previously tanned for rugs and also used to make shoes. Skins were also traded. Deer hooves are used for making rattles for dancing, antlers were carved into crochet hooks and sewing needles, awls, and herring dressing knives were made from deer ulnas. Jewelry was made from deer teeth and horns. Today, most deer hunting takes place in areas accessed by vehicles along logging roads, or along shorelines by boat. Pacheedaht hunters use guns and continue to process the meat with TEK knowledge passed down through inter-generational knowledge. The deer provides an essential source of protein resources that sustain the needs of the Pacheedaht community today. They are heavily relied upon for their hides, and bones that are used in drum making and carving.
ƛ'u.dup	Roosevelt Elk	*Cervus canadensis roosevelti*	Traditionally, elk were hunted by herding them from the edge of the San Juan River into Box Canyon where the best animals could be selected for harvest. Young Pacheedaht men participated in the elk hunt as part of their initiation as warriors. Wearing wolf skins and wolf heads, young men ran along the river and chased elk into the Box Canyon where prime animals were selected for harvest. These traditional ceremonies are part of Pacheedaht's plan for cultural revival. Elk were used for various purposes. The skins were an important trade item, and fashioned into armour, and the antlers were used to make salmon spears, seal spears and whaling harpoons valves. Elk horn was also fashioned into three-pronged spear for catching sea urchins. Previously, elk meat was eaten smoked or it was traded for farmer's produce such as vegetables, beef, pork, eggs and milk. They were also hunted near a series of deep pools on the San Juan River Estuary when they came to lower elevations during the winter. The resident local herd is growing annually and has become a thriving population in Pacheedaht territory. They are frequently seen year round in coastal areas, where they sleep, rear young, and feed on estuary grasses and intertidal seaweeds. Today, elk can only be hunted by the Pacheedaht, and the yearly quota is much anticipated and distributed to community members. The herds are carefully managed by the Pacheedaht Fisheries and Wildlife department, who issue a detailed application process to community members. Only a limited number of elk are harvested as dictated by a management plan. The Pacheedaht Fisheries and Wildlife department have ensured sustainable successful harvesting practices, and hope to expand the harvest to other areas of the coast.

Pacheedaht Name	**Common Name**	**Scientific Name**	**Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use**
buvubuχqʷ	Black Bear	*Ursus americanus vancouveri*	Bear were hunted near a series of deep pools on the San Juan River. They feed daily in the intertidal zone during the low tides during the summer, consuming crustaceans, mollusks, and urchins when they are exposed on the shoreline. Bear have not been hunted in recent times, but the interest is growing to revive the resource for cultural practices and for the rich fat source. Pacheedaht hunted bears for to provide meat for the handicapped and elderly. Bears were hunted in the fall or during mild winters. They were killed in deadfall traps or with rifles and shotguns. The deadfall traps were made from alder wood; these were set near salmon streams, such as around Harris Creek, along trap lines or bear trails. The trap was baited with a salmon laden with eggs. Bears were butchered and skinned at the hunt site. Fat was later rendered from the animal to use for cooking or to waterproof boots. Bear meat was eaten smoked, boiled or cooked in a barbecue fashion. The meat was also preserved by canning. Some Pacheedaht eat bear meat only in lean times. Bear skins were a highly valued trade item, and were traded, sold, or made into coats and moccasins. These garments were used in while hunting whales and elk. Pacheedaht has begun initiatives to revive the hunt for skins that would be used in future whale hunts.
qʾʷityaʔt	Mink	*Mustela vison evagor*	In the early to mid-20th century, mink were caught along a trap line in the Port San Juan area, in the Walbran Valley, and on the outer coast of Vancouver Island between Dare Point and Vancouver Point. They frequent the intertidal zone during low tides, and feed along exposed shorelines. Minks have become a integral part of the intertidal ecosystem, feeding and nesting along the intertidal zone. Minks were hunted using deadfall traps from February to April when the furs were thickest. Mink skins were used for trading and the pelts were sold to the Hudson Bay Company. The skins were stretched out and dried to prepare them as pelts for sale or trade. Pacheedaht members do not currently trap mink as there is no market for their furs; this would change if the demand increased as the trapping lines are still managed by community members.
wa.xdi.	River Otter	*Lutra canadensis pacifica*	In the early to mid-20th century, river otters were harvested along a trap line in the Port San Juan and San Juan River area. The trap line along Port San Juan extends from Owen Point at the northwestern point of Port San Juan and runs east to the north shore of Port San Juan. From there it continues east following the San Juan River. It includes the delta between the north and south branches of this river, and eventually ends at K?i:siduk'?a? Indian Reserve No. 4. A cabin made of shakes and cedar on the western shore of Port San Juan was used when checking traps in the area. There was also a cave with a natural chimney near Thrasher Cove that was used as a campsite when trapping. Otters were also caught along a trap line on the outer coast of Vancouver Island between Dare Point and Vancouver Point The trapping season runs from the beginning of February until the end of April. Cold weather produces thick fur, which is highly valued. Otter skins were sold to the Hudson Bay Company and the better skins sold for up as much as $16. In addition to trapping, otters were sometimes caught in snare traps placed at otter slides. Otters frequently swim across the Gordon River near P'a:chi:da?, Indian Reserve No. 2. There currently is not a good market for skins, so land otters are not actively trapped at the present time. When it becomes economically viable, trapping could continue as a marketable good. There is growing interest in the pelts a resource for cultural practices.
ƛ'apsaab	Raccoon	*Procyon lotor vancouverensis*	Raccoons were taken along a trap line in the Port San Juan area during the early to mid-20th century. Work on the trap line was from February to April, and the trap line was worked from the early 1940s to the late 1950s. Raccoon were hunted along a trap line on the outer coast of Vancouver Island between Dare Point and Vancouver Point. Raccoon skins were traded to the Hudson Bay Company. Raccoon remains have been encountered at archaeological site DdSc 12, indicating a long history of use. Raccoons feed in the rich intertidal zone and frequently are observed rearing their young in the rich intertidal area.

Pacheedaht Name	**Common Name**	**Scientific Name**	**Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use**
			There currently is not a good market for skins, so raccoons are not actively trapped at the present time. When there is a market for skins, Pacheeedaht members would resume actively trapping raccoon.
č'uč'uwaχsɬ	Wolf	*Canis lupis crassodon*	Wolves were hunted in the Walbran Valley. Wolf skins and wolf heads were donned by hunters to frighten elk; they would herd them into Box Canyon for the kill. They were also used in initiation rights for young Pacheedaht men. Wolves play a prominent role in Pacheedaht traditional practices; a most important Pacheedaht winter ceremony was commonly referred to as the Wolf Ritual. Wolves are also considered to have a spiritual connection with killer whales; they are able to transform from wolves to orcas and back again. Wolfs often utilize low tide times for feeding and traveling. As cultural ceremonies are revitalized and practiced, the need for the wolf hides would promote the active hunt by Pacheedaht members. The Pacheedaht people are inherently tied to wolves, with family clans depicted by the wolf.

Shellfish

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
č'iʔic	Butter Clam	*Saxidomus gigantea*	Butter clams are collected on sand and rocky beaches at preferred locations in Pacheedaht territory. Pacheedaht families used to gather butter clams while camping in tents. Today people go out in boats or drive by car and walk to known locations where clams can be harvested. Usually only enough clams for a meal are picked at one time; they are steamed and are generate a feast. Butter clams sometimes are eaten raw as soon as they are gathered. If an abundance of clams are collected, they are shared with family, elders and friends.
ḥiči.d	Pacific Little Neck Clam	*Protothaca staminea*	Pacific littleneck clams are collected on many beaches at preferred locations within Pacheedaht territory. Pacheedaht used to reach these areas by boat or canoe and by trails through the woods. Littleneck clams were harvested from two beaches at Snuggery Cove in the 1930s. Seafood was plentiful on the beach near the hotel at Snuggery Cove in the 1970s. Littleneck clams were also collected and eaten near the north shore of Port San Juan when fishing for octopus. Today people go out in boats or drive by vehicle and walk to locations where clams can be harvested. Clams are generally collected in sacks or buckets and eaten raw, steamed or made into clam chowder.
	Pacific Razor Clam	*Siliqua patula*	There used to be 5 beaches in Port San Juan alone that are reported to be have been good sources for Pacific razor clams. Pacheedaht frequently collected razor clams on the northwest shore of Port San Juan at low tide. While some of the razor clam sites have been degraded, others are still good sources, and there are plans for site remediation to promote healthy stocks. Pacheedaht people generally collect about two 5-gallon buckets of clams at a time. As an important intertidal resource, razor clams were managed carefully in traditional times. After harvesting, a beach is left alone for much of the year to allow the clams to regenerate.
ʕibi.d	Horse Clam	*Tresus nuttallii, Tresus capax*	Horse clams were collected in Snuggery Cove before the construction of a breakwater in the 1950s. There are multiple other beaches that maintain healthy horse clam stocks. Pacheedaht people continue to collect horse clams at many locations. Clams used to be dried in the sun to preserve them, and saved for winter stores. Today, they are usually eaten while fresh and the shells are used for ceremonial purposes.
	Mya Clam	*Mya arenaria*	The Mya clam, soft-shelled clam, is native to Atlantic waters. In recent times it has become an invasive species of the Northern Pacific Ocean, including Pacheedaht's traditional territory. This species of clams has established itself in the same locations as traditionally eaten clams, and therefore is harvested and prepared with similar methods.
	Pacific Geoduck	*Panopea abrupta*	Pacific geoducks are collected at several sites in Port San Juan, and at other beaches in Pacheedaht territory. Geoducks were collected between Snuggery Cove and Beach Camp before the breakwater was built between the government wharf and at Beach Camp in the 1950s.They were also gathered from the east bank of Gordon River but are no longer present at this location. Geoducks are still collected today where there are identified healthy stocks. Sometimes the Pacheedaht harvested geoduck clams when they washed ashore after a storm. The clams were shelled and crushed for crab bait, or can also be ground up and eaten. The shells were also thought to have talisman traits.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
ƛ'uč'a.ʔb	California Mussel	*Mytilus californianus*	Pacheedaht territory is renowned for its quality of California mussels, and they are collected at many locations along wave-exposed shorelines. Pacheedaht collect California mussels along Botanical Beach and walk or boat from Port Renfrew to harvest them. California mussels with barnacles on them are collected in the Hammond Rocks and other areas within reach of boat from Port Renfrew, and are collected in quantities for distribution throughout the community. It is reported that the largest mussel shells on the coast could be found on a reef near Owen Point. These rare large specimens were highly prized, as they were considered ideal for making harpoon blades. According to one source, whalers from as far as Clayoquot came to these rocks to collect mussel shells for their harpoon blades. At low tides during the summer, Pacheedaht people are able to reach from a canoe and pry mussels from the reef. Pacheedaht also gathered large California mussel shells near Kellet Rock, Logan Creek Kulaht Creek and Bonilla Point. Large mussel shells were ground on sandstone and shaped into harpoon heads, chisels, spears, points for digging sticks and parts for bows. Chisels made from mussel shells were strong enough to chop down yew trees. The mussel shells were filed to a point, then oiled with dogfish, seal or whale oil over a period of two years in order to make a whale harpoon blade. A supply of these modified shells had to be kept on hand since points needed to be changed after every few uses. This detailed preparation of the shell yielded the necessary strength. Mussels were also collected and steamed, or used as bait when fishing for greenlings Pacheedaht members continue to harvest mussels at many preferred locations along the shoreline.
k'učup	Blue Mussel	*Mytilus edulis*	Blue mussels are a favored traditional food for Pacheedaht people; large quantities of mussel shells appear in middens at archaeological sites. When traveling by canoe or car, Pacheedaht people used to stop at the beach near the mouth of the Jordan River to collect and eat small mussels. The Southern shoreline of the Port of San Juan extending to Botanical Beach has been used extensively for collecting mussels and other seafood. Prior to construction of the breakwater in the early 1950s, the beach at Snuggery Cove was a also a good source of mussels. Pacheedaht also gather mussels at low tide from locations such as the rocks in the bay at Thrasher's Cove. Pacheedaht people can access and pick mussels at most any time of the year, and the resource is therefore revered for the accessibility. Often mussels with barnacles on them were selected for eating and they were both cooked at the same time. They are harvested and immediately steamed, and are especially prized when covered in barnacles.
c̓eʔi.daw	Gooseneck Barnacles/	*Pollicipes polymerus*	Gooseneck barnacles are collected at specific locations along the marine shorelines in Pacheedaht territory, and they remain a favorite food known as "slippers." Gooseneck barnacles are picked off the rocks and eaten immediately or they are steamed. Their habitat is concentrated in in very specific environments; they will only grow in exposed areas with constant wave action. At low tides Pacheedaht members target this species and consider them to be a feast in themselves. The barnacles are generally collected in large quantities for distribution to elders, family and throughout the community and for eating at community gatherings.
k'ibsik'a.t	Acorn Barnacle/Giant Barnacle	*Balanus glandula*	Acorn or Giant Barnacles were traditionally gathered at preferred sites in Pacheedaht territory, and continue to be collected and eaten today. Barnacles were sometimes cooked by placing them on the fire while still attached to a rock. This allowed the barnacles to separate from the rocks. Presently, mussels with the largest barnacles on them are collected. The mussels and barnacles are boiled together until the mussels open. The barnacles are easily pulled off the mussels when cooked. The insides of the barnacles are then picked out with a toothpick or other implement, and then eaten.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
c̓i.daχtp	Black Katy Chiton	*Katharina tunicata*	Black Katy chitons, commonly called "rock stickers," are collected from the rocks at low tide, and generally collected with a variety of other seafoods such as urchins, mussels and barnacles. The Pacheedaht harvest chitons and other seafood at Botanical Beach and cooked them in sand covered pits on the beach, or steamed in conventional pots. Many other preferred chiton harvesting areas that are accessed by boat. Chitons are eaten raw or steamed. Today elders favor this seafood and request that harvesters collect quantities for them.
p̓aʕa.ʔb	Giant Gumboot Chiton	*Cryptochiton stelleri*	Giant Gumboot Chitons are commonly called "rock stickers" and are collected in the same fashion as the black kay chitons. They continue to be collected from specific harvesting areas and eaten by Pacheedaht members today. The chitons are pried off the rocks at low tide and were sometimes broken open with a rock and eaten raw. They are sometimes also eaten raw after being soaked in fresh water overnight. The giant chitons used to be steamed in sand pits; In general Pacheedaht people boil them in water with salt for a few minutes before eating them in contemporary times.
	Black Leather Chiton	*Katharina tunicata*	Black leather chitons are collected in the same fashion as the black katy and gumboot chitons. There are preferred harvesting areas along Pacheedaht territory. They are pried off the rocks there and eaten raw or boiled. Chitons encrusted with barnacles are sometimes boiled together.
ʔapxʷsiy̓	Northern Abalone	*Haliotis kamtschatkana*	There are specific intertidal locations in Pacheedaht territory where abalone could be collected at the lowest tides by prying them from the rocks. They are not currently collected as they have been over-harvested primarily by commercial divers. Abalone are reported to have been plentiful in the past, but they are not being harvested now until the stocks have been restored; Pacheedaht have seen the stocks slowly returning in recent surveys. Abalone are removed from their shells, beaten and fried, or boiled. Their shells are also used in jewelry, and to inlay in carvings.
	Limpets	*Tectura persona*	Limpets are harvested during intertidal harvests of shellfish in areas where chitons were collected. They are commonly referred to today as china hats, and are consumed with other shellfish. Harvested by prying off of rocks and previously steam cooked in traditional cooking pits. They are steamed in more recent times in conventional pots.
ƛala.ʔub	Cockle	*Clinocardium nuttallii*	Pacheedaht people collect cockles at specific beaches in or near Port San Juan. They are sometimes collected after a storm when they wash up on the beach at low tide, or as a by catch in traps. Eaten fresh or steamed, traditionally steamed in cooking pits.
	Oyster	*Ostrea conchaphila* *Crassostrea gigas*	Oysters are collected on select rocky shorelines in Pacheedaht territory, and are difficult to pry from the rocks. They were traditionally smoked for winter storage, but are usually eaten raw or steamed when collected recently.
ḥi.xʷa	Whelks	*Nucella lapillus* *Thais emarinata* Dentalium pretiosum	Whelks were described in interviews, as well as being present in shell middens. The Dentalia species was most commonly traded for, but were found occasionally in the Pacheedaht territory. They were harvested within the intertidal zone at low tide. They are not commonly harvested, but would be collected among other shellfish while seafood gathering. Whelks would be eaten raw, or steamed among other shellfish. Dentalia shells were very valuable, and highly sought after. They were most commonly found in northern portions of the west coast of Vancouver Island, and traded to the Pacheedaht. The shells were then exchanged to the Makah, south the California, and across North

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
			America. They were used in jewelry, and were an essential element in coming of age ceremonies for young women.

Subtidal Species

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
k'u.c̓ay̓	Urchins (general)		Sea urchins or sea eggs are a traditional food that is harvested at many locations along the coastline in Pacheedaht territory, and are favored seafood for many Pacheedaht people. There are many beaches and rocky shelves in Pacheedaht territory where urchins thrive. Pacheedaht collect sea urchins in tidal pools at the beach from May until September. Sea urchins remain a favorite seafood and are gathered for elders other community members often by younger people at many places on the coastline. They are usually eaten shortly after being harvested, and sometimes large quantities are brought in for gatherings or ceremonial purposes.
	Giant Red Sea Urchin	*Strongylocentrotus franciscanus*	Giant red sea urchins are gathered for immediate consumption and for large gatherings or ceremonial purposes. The urchins are picked off the rocks, cracked open and eaten raw or fried in butter.
	Purple Sea Urchin	*Strongylocentrotus purpuratus*	This species is more readily available at low tides. Purple sea urchins are gathered for immediate consumption and for large gatherings or ceremonial purposes. The urchins are picked off the rocks, or speared with specialized implements. They are then cracked open and eaten raw or fried with butter.
	Green Sea Urchin	*Strongylocentrotus droebachiensis,*	Sea eggs are harvested from green sea urchins and eaten fresh.
hasa.ʔbc	Red Rock Crab	*Cancer productus*	Red Rock crab are caught in several locations in Pacheedaht territory. Crabs were previously also speared from a canoe or off the rocks at low tide. This was done using a pole with two or three sharp prongs, nails or a file attached to the end. The poles were often made from spruce or fir wood. Pacheedaht also dove used to dive into the water about ten to fifteen feet down, searching for crabs among the rocks. The crabs were caught by hand and thrown into a canoe or boat. Pacheedaht used to, and still use various methods to catch crabs. Crabs can be caught in seine nets while fishing for salmon, flounder or other fish. Crab traps were placed in coves or in other known crabbing locations. Geoducks were sometimes crushed and used as bait in a crab trap. Crabs are harvested year round. Usually the males were selected for their size.
hasa.ʔbc	Dungeness Crab	*Cancer magister*	Dungeness crabs are found at a variety of sites within the Port of San Juan. Fisherman would traditionally either dive or set out crab traps. This is a highly prized resource for the Pacheedaht community today, and crabs often harvested in large numbers in crab traps for community gatherings and feasts. Crabs were eaten for daily meals or gathered for potlatches. In the past crabs were steamed, but today they are cooked in boiling water for about 15 minutes, then eaten. Pacheedaht territory is know for an abundance of crabs, and the best crabbing locations are well known and utilized for trade with other Nations.
	Prawn	*Pandalus platyceros*	Prawns were caught at a fishing area in Port San Juan, but have not been available in large numbers in recent times. Pacheedaht Fisheries acknowledges the resource in potential future Fisheries planning initiatives. Prawns are steamed or eaten fresh.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
	Dock Shrimp	*Pandalus danae*	Dock shrimp were caught at a fishing area in Port San Juan, but have not been available in large numbers over the past few years. Pacheedaht Fisheries acknowledges the resource in potential future planning initiatives. Shrimp are steamed or eaten fresh.
	Scallop (Weathervane, Giant Rock, Smooth Pink, Spiny Pink)	*Patinopecten caurinus, Crassadoma gigantea, Chlamys rubida, Chlamys hastata*	Scallops are collected at specific locations within Pacheedaht territory. Weathervane scallops, valued for their shells are collected at a particular site in Port San Juan. Weathervane scallop shells were used for making ceremonial rattles. Scallops are also eaten by being boiled or steamed.
	Humboldt Squid	*Dosidicus gigas*	Humboldt squid sometimes appear in fishing areas within Port of San Juan, particularly in times of warm water. Caught as a by-catch while fishing, they are used as bait. Pacheedaht has utilized the squid by preparing it deep fried, and the popularity is growing in community.
tilu.p	Pacific Octopus	*Octopus dofleini*	The Pacific Octopus is caught at a number of sites with the territory, including a well known area at Jordan River. Pacheedaht members would sometimes walk out to an area of octopus dens at Botanical Beach during low tide. The octopus are eaten, or used as a preferred type of bait for catching halibut. A method, used in the past, of catching octopus was to find a den at low tide, identified by the debris of dead animals outside the den. When the den of the octopus had been located, the octopus was forced out of its den and could then be caught or speared. Pacheedaht often catch octopi in crab traps in the Port San Juan area. At one well known octopus den, the animals take refuge in a hole or underneath a ledge. The animals could then be pulled from their dwellings with a small pole with a hook on it and then speared with the hook or harpoon. The animals can also be pulled from their dwellings with a ten to twelve foot pole with a harpoon blade attached, and then speared. The octopi are often put in a sack so they cannot escape. Octopi are eaten or are often used as preferred halibut bait.
	Pile Worm	*Nereis vexillosa*	Pile worms that grew on bay mussels were picked off the pilings at the government dock. They were also collected on the shore after storms. Pile worms are used as fishing bait.
ti.i'daw	Sea Cucumber	*Parastichopus californicus*	Sea cucumber is available at a many locations. Pacheedaht collect these to be eaten. There is a growing commercial industry for Sea cucumbers that Pacheedaht Fisheries will be looking into for potential resource management.

Sea Mammals

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
k'a.šc̓uʔ	Harbour Seal	Phoca vitulina	Harbour or Hair Seals were traditionally hunted at many sites along the entire outer coastal portion of Pacheedaht territory, from Magdalena Point in the south, to Carmanah Point in the north. As a rule, harbour seals frequent waters close to shore and are seen in shallow bays and inlets to a much greater extent than are any other sea mammal. There are also sea caves in Pacheedaht territory where seals congregate, and where Pacheedaht hunters could catch the seals with nets, or herd them together for easy killing. Camps were often established near these caves for access and processing. Men would go for a week to stay and hunt at these prime seal hunting locations. Although they are not commonly hunted today, there is growing interest in the availability of seals as a resource base. Harbour seal meat was hung for two days to let the oil drip. Seal blubber was cut up into strips with some of the fat left on. The meat was partially smoked and eventually boiled before eating. The women prepare the skins and the meat, and boil the blubber for oil. Seal meat could be stored in wooden bins or smoked, salted and cut into strips like jerky. The jerky is of particular interest to support in the regular diet of Pacheedaht. Seal oil was stored in a seal bladder. Once filled, the bladder was smoked to avoid leakage. Seal oil had many and varied applications. It was used medicinally as a general tonic. Salmon jerky was dipped in seal oil to soften it. Seal oil was rubbed as a preservative on spears and tool handles. Burial trees were rubbed with seal oil to prevent animals from climbing the trees. Seal skins were used to make floats for whaling, and seal stomachs were used as fishing floats. Salmon roe was preserved in a seal stomach buried underground. The seal hides were also used to make drums. The seal skins are being incorporated in Pacheedaht's economic initiatives for arts and crafts production.
k'iɬadu.s	Northern Fur Seal	Callorhinus ursinus cynocephalus	In traditional times, Pacheedaht hunters in canoes would venture 40 miles offshore to intercept the large herds of fur seals as they migrated during the spring and fall between California and the Aleutian Islands. This species is no longer abundant, but populations may return in the future with restoration efforts, and Pacheedaht will integrate the fur seal into their resource procurement and management. Traditionally, fur seals were hunted with a two-pronged harpoon, and their skins and meat were used for clothing or canning, or traded to other native groups. Migrating fur seals killed off Pacheedaht territory could be skinned and their hide (with 1" of fat still on) could be used as an instant coat. In the late 1800s, commercial hunting of fur seals was a major enterprise, and many schooners, stationed in Victoria, would follow the fur seals on their migration north. Pacheedaht and other Nuu-chah-nulth hunters were hired as hunters. Special sealing canoes were made to fit on the schooners. Pacheedaht men would travel up to Alaska to hunt the seals from canoes. This was a major source of income for Pacheedaht hunters for a few decades into the early 1900s. The hunting of fur seals remains a Pacheedaht right that will be reviewed when populations return.
ti.čaq	Sea Otter	Enhydra lutris lutris	Sea otters live almost entirely in the ocean. They frequent offshore kelp beds, rocky islets, and reefs. They were hunted in bull kelp beds with the same two-pronged spear used for hunting fur seals. Pacheedaht hunted sea otters offshore from the important village of Qala:yit, now Pacheedaht IR #3. In traditional times, sea otter was highly prized for its fur, used for fashioning various garments; the meat was also eaten. Sea otter furs became a major item of trade with European and American maritime traders during the late 1700s and early 1800s until the otters became scarce. During the late 1800s they were still hunted, and each sea otter pelt commanded a high price. Currently, there are few sea otters in Pacheedaht territory, but it is anticipated that will likely re-establish themselves within the foreseeable future. There are also restoration efforts being pursued by the Makah Nation and is anticipated that the sea otters will repopulate Pacheedaht territory as well When populations become re-established, Pacheedaht will integrate the sea otter into their resource management and procurement planning.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
ʔakʷa.dis	Northern Sea Lion, California Sea Lion	*Eumetopia jubatus, Zalophus californianus*	A sea lion rookery was located in a cave at Sombrio Point, and there are three other seal lion caves in Pacheedaht territory. Pacheedaht people do not currently hunt sea lions. The sea lions are a valuable species for eco-tourism and as an indicator of a healthy ecosystem. The rockeries are included in the tours associated with fishing charter, whale watching, and coastal charter ferry stops as a testimony to the thriving abundance of food sources and resources in the area. Pacheedaht is concerned for the future of this species in the event of an oil spill, given their known oil residency. Sea lions were hunted in a similar manner to seals, and each sea lion yielded a lot of meat and blubber.
k'ʷak'ʷa.ʔaq	Harbour Porpoise	*Phocoena phocoena* *Phocoena vomerina*	Shell middens have consistently shown there to be porpoise remains in areas of traditional Pacheedaht villages. Dolphin meat was consumed, and processed much like that of whale blubber. The teeth and bones were likely used for tools and jewelry. Porpoises are a common sight today within Pacheedaht territory. Ecotourism initiatives include whale and dolphin sightings in Pacheedaht territory. There are plans to view the sea mammals via traditional dugout canoe.
č'it'apkʷ	Whales (general)		During the 19th century, and before, the Pacheedaht village at Qala:yit, now IR #3, was a jump-off point for Pacheedaht whalers to get to the whaling grounds. Qala:yit village is sheltered from both easterly and westerly winds making it a suitable towing location. Drift whales were also brought in to the head of Port San Juan where they were cut up on the beach, and distributed according to traditional protocols. Although humpback and grey whales were species hunted most often, right whales were also previously hunted. Once a whale had been killed out on a whale hunt, it was towed into Qala:yit for processing. It is estimated that the last whaling activity in the area occurred one hundred years ago; at which point the whaling industry was at its peak in the Eastern Pacific, and whale populations had been significantly endangered. The populations of right and humpback whales are on the rise, and a group of grey whales has taken up residence during the summer off Qala:yit. Whalebone has been found at archaeological sites in Pacheedaht territory. The Pacheedaht logo is of a whaler and canoe in pursuit of a whale, harpoon in hand; this illustrates their identity of being whaling people. Chief Queesto Charles Jones inherited a whaling harpoon that had been used by his grandfather; this harpoon is now on permanent display in the lobby of the Sooke Region Museum. Killing a whale was the highest honor for Pacheedaht whaling chiefs, who spent their entire lives preparing, and practicing the skills required for the hunt. Whaling was considered a sacred activity with rigorous ritual activity that began at the hunter's birth. Whalers and their crew practiced daily activity to cleanse their spirit and bodies in order to successfully prepare for the hunt. Whale hunters conducted their cleansing rituals at shrines in secret locations. From these shrines, the whalers would be in spiritual communion with the spirits of the whales, and with their Ditidaht and Makah neighbors. Pacheedaht whalers occasionally went whaling with the Makah. Whales were usually hunted after calving in the early part of summer. Specially made whaling canoes were fashioned from cedar logs, and harpoons were made from sections of yew wood scarfed together. Young whalers trained rigorously to become paddlers and crew members, and to dive into the water to tie the whale's mouth shut after harpooning; this prevented the carcass from sinking. The harpoons were fixed with extra large mussel shell blades in traditional times, and with iron blades when these became available. Suitable mussel shells for the blades were collected from specific sites known for the largest and strongest mussel shells. Floats made from seal skins were tied on to the harpoon line after the whale had been struck; these impeded the whale's ability to dive, and caused it to tire. More detail regarding the

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
			significance of whaling to the Pacheedaht will be included in the body of the report.
	Humpback Whale	Megaptera novaengliae	Humpbacks spend a considerable amount of time in the region during their annual migrations, and in some instances stay year round. They are often seen at Swiftsure Bank while fishing for halibut. Pacheedaht associated productive fishing grounds with the presence of feeding whales. Whale meat was divided amongst the community, with special sections reserved for the chiefly families. The bones were often used around house platforms and serves to route water away from the houses.
č'it'apkʷ	Gray Whale	Eschrichtius robustus	Gray whales tend to travel and feed close to shore which made them an accessible species to target. They were also considered more docile than the humpbacks. Whalers hunted gray whales in the vicinity of Bonilla Point on their migration north, and they worked with the tide to tow the whales into either Qala:yit or into Port San Juan as circumstances dictated. The meat of the whale was divided amongst the chiefs, the whalers, and the community and the hunter kept the skin and a certain part of the whale (ambergris) to sell for perfume. Whale sinew and skin was made into ropes, patching material and bags. Whale oil was an important commodity, stored in seal skins, and used as extensively as a condiment and for burning in lamps. The Makah renewed the whale hunt recently and some Pacheedaht members participated. Pacheedaht is working to reestablish the whale hunt in the traditional territory, as it is still an established aboriginal right.
	Orca Whale		Killer whales were not often targeted for hunting, but they an integral part of the cultural and traditional histories of the Pacheedaht. There are both resident killer whale pods, and transient orcas in Pacheedaht territory. They are often seen migrating, and feeding in the Juan de Fuca Strait and on Swiftsure Bank. Orcas were hunted by young whalers in order to test and improve their abilities. The killer whale is a very fast, agile swimmer, making them difficult to approach or harpoon. They are a key figure in many stories of the Pacheedaht, and an important spiritual character that was able to transform into the Wolf and emerge onto land. They continue to be spiritually recognized by Pacheedaht, and the concern for their survival are escalated by the increase in tanker traffic.
	Northern Right Whale		This species was targeted, as it was slow moving, large and contained more oil than other species. The focus on this species lessened after the commercial overhunting in the North Pacific, primarily due to the ease in taking down the animal by commercial vessels, and their high oil content. When this species was plentiful, the Pacheedaht were able to get large quantities of meat and oil without a long, laborious fight or tow. This species was reported to have tasty meat.

Coastal Plants and Trees

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
ẋubis	Western Red Cedar	*Thuja plicata*	Harvesting of red cedar occurs throughout Pacheedaht territory, widely known for the high quality of its trees. Red cedar is light, strong, resistant to rot, and easy to split and carve. It was the wood of choice for the manufacture of most items of domestic use such as canoes, houses, cradles, masks, boxes, chests and many other items of utility. The bark of the cedar was equally important. Cedar bark was used to make clothes, rope, hats, baskets and many other items. Pacheedaht people are renowned for their carving ability and they made canoes and other items for trade. Much of the technology related to resource acquisition, processing and storage was based on cedar tools, including fishing and hunting gear, weirs, drying racks, digging tools, cookware, eating utensils and carrying equipment. Most of the utilitarian clothing, such as capes and hats, was fashioned from cedar bark. Ornamental and ceremonial house posts, masks and ritual paraphernalia were often lavishly carved. Wood working was perhaps the most important technology for the Pacheedaht. Classes of products manufactured wholly or partially from wood include transportation, shelter, tools, and ceremonial and art objects. Much of the economy of the region depended upon watercraft to access resources and these vessels, and their accompanying bailers were made of red cedar. Cedars were carefully selected for harvesting, groves of good cedar trees were preferred for harvesting. Trees were usually felled and the wood blocked out for canoes, house posts, or planks in the woods, then transported home. A prayer was always offered to the tree before felling or stripping bark from the tree. The collection and preparation of cedar bark continues to be important for Pacheedaht members. Cedar bark itself is considered to have sacred qualities, to be pleasing to supernatural spirits, and is a key element in most ritual events.
tu.xupt	Sitka Spruce	*Picea sitchensis*	Sitka Spruce are found on the coastal regions of Pacheedaht territory, and thrive along rich waterways and close to the ocean. Spruce trees were used for tree burials. Spruce boughs were used for ritual and ceremonial purposes to cleanse the spirit – and this is specific to Pacheedaht. Pacheedaht scrubbed themselves with spruce or hemlock boughs and prayed during ritual bathing performed at secret locations. During winter dances, performers waved spruce branches at the spectators to scare them. Boughs were also a part of the costume in initiation ceremonies. Spruce wood was used for the 15 ft. to 20 ft. long poles used for spearing halibut, flounder and crabs. Spruce pitch provided a protective coating for fishing spears and heads of whaling harpoons. It was also used for repairing leaks in canoes and waterproofing baskets and implements. Pitch was also used as a medicine for cuts, wounds and boils. It was heated and strained through moss or lichen. The pitch would leach some of the medicine from the moss or lichen and the resulting substance was used as a poultice. Spruce boughs are pitch are used in ceremonies and medicine making today.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
c̓ibpat	Basketry Grasses	*Carex obnupta*	Basketry grass was predominantly collected from coastal areas close to Pacheedaht villages – the prime locations are well-known and continue to be important to the Pacheedaht. Pacheedaht women used the grass to fabricate beautifully woven baskets that were traded or sold. Basketry grasses are still collected, as weaving is practiced by several Pacheedaht members today. There are initiatives to increase the practice of weaving and integrate it into economic opportunities. These species are found primarily within intertidal areas, very sensitive to environmental disturbances. Pacheedaht girls were taught how to pick these grasses when they came of age. Groups of young Pacheedaht women gathered the grass with elders, walking to the grass collecting site from their village. Three-cornered grass was gathered in summer when the plants reached a certain height or when they attained the right texture for basket weaving material. It was pulled up from the roots and broken off at the base. Often Pacheedaht stayed in a small shack and preserved the grass while on site; this was done by pulling the grass through salted boiling water. It was then split and tied into bundles and hung from a tree to dry. The grass was then laid on the ground to bleach in the sun.
qicsapt, čapxʷapt	American Dune Grass	*Elymus mollis*	Dune grass was harvested at the long beach at the head of Port San Juan, on the west shore of Delta Island and at other locations. Dune grass is an important plant ecologically because it stabilizes the sand on the beach and stops erosion. It is found growing in intertidal areas, a very sensitive ecological area. Dune grass was used as twine in tying reef nets and basket traps. Its tough leaves were used as a needle and thread for sewing and tying certain objects. The long, soft rootstocks of the grass were twisted into a rope-like bundle and the ends were tied in a knot. Young men rubbed their bodies with this bundle when bathing to cleanse their spirits and to strengthen their bodies. Today Pacheedaht work with the grass harvesting knowledge holders to host community workshops.
k'eyicapx, le.pat	Salal	*Gaultheria shallon*	Salal berries are picked at a number of locations near to the Pacheedaht community, and are abundant at many other locations. They are particularly abundant in coastal regions. Salal berries are picked in July and August and eaten fresh, made into jam – in the past they were dried on skunk cabbage leaves to make a type of fruit leather. The leaves could be chewed to alleviate hunger or used to make a greenish-yellow pigment. Leaves were also eaten by newlyweds to ensure their first born was a boy. The branches and leaves were used in steam cooking. They continue to be harvested by Pacheedaht as an important antioxidant food source, and medicinal tea.
ƛiƛcsap (edible roots) ƛicsapapt (plant)	Pacific Cinquefoil or Silverweed	*Potentilla pacifica*	Pacific cinquefoil roots were collected from meadows, river estuaries, tidal zones and tidal flats. Specifically, informants indicated these roots were gathered at several locations near the Pacheedaht main village. In the past the cinquefoil roots were a highly favoured food, and a valuable trade commodity. The cinquefoil root beds continue to be prized possessions of the Pacheedaht and maintain significant efforts for reviving the habitat and cultivation of the species. They are included in traditional pit cooks today. Cinquefoil root collecting began around October when the plant turned orange and started to die. The roots were harvested through the winter when they had their maximum carbohydrates. It was possible to get them in spring when food was scarce, and they were an essential resource when preserved fish and other animal foods ran low. The roots were pit cooked on the beach and each woman had their special knot, which they tied the roots with to identify their food put into the pit. Three inch cooking rocks were ideal for cinquefoil roots. When cooked in this way, cinquefoil roots tasted like sweet potatoes.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
naxu. (small leaved variety), ʕeʕciy̓ (large leaved variety)	Wild Clover	*Trifolium wormskioldii*	Wild Clover occurs at a number of sites, and one in particular was considered a good source for the wild clover. As with the cinquefoil, the clover roots were a traditionally favoured food. Wild Clover is still valued today as a culturally important food source. Cooked and utilized in a similar manner as cinquefoil.
ʕešipt	Stinging Nettle	*Urtica dioica*	Nettles were harvested from open areas in the forest and along the coast where there was more exposure of light. Nettle was used as food and medicine, and the fibre was fashioned into twine for a wide variety of purposes. It continues to be harvested by the Pacheedaht for various applications. Stinging nettles were used as a medicine to make a poultice for cuts, and as a tea for a general tonic. Duck nets were made of nettle fiber spun together with yellow cedar bark and cottonwood fiber. Stinging nettle twine used as a leader for fishing halibut. Today nettles are consumed as a spring food, and a medicinal tonic tea.
qawi.pt, č'a.w'ičk'ay, šišičqa.ʔdƛ	Salmonberry	*Rubus spectabilis*	Red and yellow salmonberries and salmonberry shoots are picked at many locations near the Pacheedaht village and continue to be a favoured food. They are found in sunny locations, and thrive in the coastal climate. Salmonberries ripened early around the end of May or first of June, when the sockeye came and were celebrated. They are eaten fresh because they were too seedy and watery to be dried. Salmonberry shoots are picked during a two week interval just after the plant flowers, usually in April or May. The shoots are similar to celery and are dipped in sugar or a sugary syrup and eaten while picking and be eaten as a treat. Salmonberry shoots can also be pit cooked, which was thought to enhance their ability to clear breathing passages.
ƛ'iχapχ, ƛ'iχapχapt	Huckleberry	*Vaccinium parvifolium*	Huckleberries are picked at picked at many locations near the Pacheedaht village and continue to be a favoured food. Huckleberries ripened in June, after salmonberries but before salal berries. They are eaten and dried in the same manner as blueberries.

Seaweeds, Intertidal and Subtidal Plants

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
	Seaweeds and Sea Grasses (General)		Pacheedaht collected many different varieties of intertidal plants and seaweeds throughout their traditional territory. Intertidal species were collected during the spring and summer low tides, while the subtidal species (Bull Kelp, Macro Kelp) were harvested by canoe in the summer. Pacheedaht members continue to collect seaweeds. Both seaweeds and sea grasses were used as a food source, and often preserved for winter stores. They were dried on the rocks in the sun, and stored in cedar boxes for winter. Porphyra was the most widely consumed, served with whale oil or bear grease. The Pacheedaht began collecting Porphyra (or Nori) in the early 20th century to sell to stores in Victoria for the Chinese and Japanese communities. Other species were used for medicinal, material, and spiritual purposes.
c̓a.ypiš	Red Laver	*Porphyra perforata and other species*	Large quantities of Porphyra were collected at many sites along the coastline in Pacheedaht territory. Family groups of elders, women and children traveled by canoe to various beaches to camp, fish and pick seaweed, sometimes staying for weeks at a time. Pacheedaht members continue to collect seaweed today and It is integral to the economic development of resources in the territory. This species has very high economic value on the world market as the Japanese named seaweed “nori.” Seaweed was usually picked at low tide in the spring or early summer before it became too tough to eat. The seaweed was put into sacks as it was collected and taken to shore. It was then sun dried on the ground, rocks or a log for a day or two. Some Pacheedaht ate dried seaweed by itself, or dipped in oil. Other people did not eat the seaweed but sold it to stores in Victoria for the Oriental communities. In the late 1910s or early 1920s seaweed was sold in Victoria for 10 cents a pound, and held high economic value for many Pacheedaht members – this continues today.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
wa.qa.t (whole plant), qa.qa.t (float or bulb), lata.bʔub (leafy fronds, human hair), sadaʔbɬ (fishing line of kelp), a.t (extending downwards)	Bull Kelp	*Nereocystis luetkeana*	Bull kelp is found at many places along the coastline, and generally indicate underwater reefs. It was harvested from specific places known to produce healthy plants with resilient characteristics. In some kelp beds the bull kelp grew from 150 to 200 feet long. Bull kelp continues to be harvested by Pacheedaht and is integrated into the resource management strategy of the Nation. Bull kelp was collected by young men who were trained in deep-water diving as part of their preparation for whale hunting. The long stipes of the kelp were cut off at the base and used for fishing line. Kelp was also cut off at the base with a knife attached with a long pole or collected on the beach when it washed up after a storm. After the kelp was collected, it was laid on the roof of a house to dry. It was then rubbed with oil every few days until it was thoroughly saturated. Dogfish oil was usually used for this process because it was easiest to get and was not as edible as seal oil or whale oil. The curing process took as long as a year to complete. The line was then rolled up for storage. The fishing line was later soaked in sea water in order to make it pliable enough for use. The line did not need to be oiled after each use, but had to be soaked each time after storage. Kelp line could be used for trolling salmon and for catching bottom fish such as cod and halibut. Several lines could be joined together with a fisherman's knot. The hook was attached to the kelp line with a leader made from spun nettle fiber. Because the curing oil acted as a lubricant, the kelp fishing line was easy on the hands when hauling it into the boat. Kelp lines did not last indefinitely and eventually wore out from being hauled into the canoe or boat several times. Bull kelp was also used in making halibut hooks. The hooks were carved from the knots of trees such as hemlock. The knot was halved or quartered lengthwise, each piece carved to the correct proportions and then several were inserted into a kelp bulb a little longer than the knot sections. The kelp bulb and the hollow part of the stipe were used as containers to store dogfish oil, whale oil, or seal oil. More recently the kelp bulbs were used for storing molasses. The containers were usually about one half metre long and they were dried before use. The bulb of the kelp was also dried and used a mould for skin cream made from the fat of a deer. The fat was mixed with the aromatic resin of cottonwood buds or pine pitch and poured into the kelp bud to harden. The kelp was then peeled off leaving a bulb-shaped piece of tallow to be used to protect the face from the elements. Water was put in the bulb and it was plugged with a piece of wood or moss. The kelp was then buried upright in hot sand next to a fire. It was left there overnight and the knot was removed from the kelp bulb the next morning. The knot was then bent into a hook shape using a mould and later left to cool and dry. The leaves of the bull kelp were used to cover fish and keep them from spoiling or drying while out fishing. Bull kelp also provided a habitat for herring spawn, sea urchins, abalone, salmon and other marine life. Pacheedaht picked the kelp and peeled off the herring eggs, which were later dried or preserved in brine. Herring eggs were usually harvested in March. Sea urchins and abalone were plentiful where bull kelp grew. Salmon traveled close to the shore in the thick bull kelp and Pacheedaht set fish traps in the kelp.
taba.x	Eel Grass	*Zostera marina*	Eel grass was collected at rocky beaches during low tides. The best harvesting grounds were on the outer coast of the territory, and are an environmentally sensitive ecosystem. They are closely monitored by Pacheedaht and recognized as significant spawning habitat. Eel grass was used in the manufacture of lead gates on each side of a reef net, to guide salmon into the nets. It was bright green and eaten fresh with seal or whale oil. The eel grass was harvested by twisting a pole around the leaves. The base of the leaf stems and roots were also eaten. The white fleshy rhizomes of the eel grass were pulled from the roots at low tide in spring. They were often eaten on the site. In earlier years they may have been dipped in oil. Mallard ducks, Brant, and geese feed on eel grass and other foods at low tide in the winter. Eel grass is also a habitat plant for herring spawn.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
ɬaba.x, di.ʔdikʼʷapt	Scouleṛs Surf Grass/ Torreẏs Surf Grass	*Phyllospadix scouleri/ Phyllospadix torreyi*	Collected at low tides in areas where seaweeds were collected. Pacheedaht recognize areas with surf grass as being especially productive seaweed and seafooding area. Herring spawn was collected from the leaves of Scouler's Surf-grass. The leaves were harvested and dried with spawn on them. They were then soaked in water and the spawn were pinched off the leaves and eaten. The leaves of Torrey's Surf-grass were dried and split for use in basketry. Herring spawn was also collected on these leaves
pu.pu.xʷiyʕa. ("a lot of blown up things on rocks")	Bladderwrack	*Fucus gardneri*	Harvested in intertidal areas during the early spring and summer. This species grows in the upper intertidal and is readily available for use. The fronds are cut off and collected for use. Bladderwrack is harvested today as a medicine for thyroid conditions, and has a growing importance in the community. It is also used topically for burns. Bladderwrack was harvested used fresh or dried by the fire. Whalers rubbed themselves with this plant to bring luck and success in the hunt. A pregnant woman also rubbed her body with bladderwrack if she wanted to give birth to a whale hunter. It was also used as a poultice for burns or wounds. Bladderwrack is an excellent habitat plant for crabs and small shellfish. Bladderwrack was referred to as firecrackers because it would pop when dried and stepped on, or explode when thrown in a fire during ceremonies.
ƛ'oʕqʷapt	Leafy Kelps	*Hedophyllum sessile (bubbly), Laminaria groenlandica (smooth)*	Leafy Kelp was harvested at low spring and summer tides and deposited in herring spawning areas for collection of herring eggs. Herring deposited their spawn on both the bubbly and the smooth varieties of leafy kelp. The spawn were either peeled off the leaf fronds and eaten fresh or left on the algae and dried for later use. The smooth type of kelp was preferred for harvesting herring spawn because the spawn was easier to peel off. There is interest by Pacheedaht to incorporate these species to into the resource management objectives of the Nation.
ɬucɬucpt	Short Kelp	*Lessoniopsis littoralis*	This species was only harvested during low tides in extremely exposed outer coasts. The fronds would be harvested and used fresh or dried. Pacheedaht do not commonly harvest this species today, but as it becomes marketable, this species will be integrated into Pacheedaht's resource management strategy. Pacheedaht made a salve from burned strips of short kelp and sea palm. The salve was rubbed on the spines of young boys to strengthen their bodies.
ɬucɬucpt	Sea Palm	*Postelsia palmaeformis*	Sea palm grows along headlands, and on rocky points in exposed sites. This species was accessible by boat during low tides. It would be cut off and harvested and prepared in a variety of ways. Sea palm has become more rare, and with limited coastal access, it is not commonly harvested today. Pacheedaht made a salve from the stipes of the sea palm by drying them in the summer, then burning them, powdering the charcoal, and mixing it with raccoon bone marrow. Newborn babies who were going to be whalers were rubbed with charcoal from sea palm to make them strong and resilient. The plant was burned and the ashes were rubbed on the face of a person having convulsions. Sea palm ashes were also mixed with water and taken for a medicinal purpose.
c̓a.ypiš	Sea Lettuce	*Ulva lactuca*	Sea Lettuce was harvested in similar areas as Porphyra. It thrives in rocky upper intertidal areas, especially in areas with fresh water flow. It was harvested in spring by tearing from rocky substrate. Pacheedaht are not actively harvesting sea lettuce today. Green algae is an indicator of the arrival of salmon up the creek after the first fall rains wash the algae away. Also eaten or dried for winter use.

Fish

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
	Salmon (general)		Salmon are a fundamental feature of Pacheedaht culture and economy, and have been for many centuries. Traditionally, Pacheedaht people harvested salmon in large numbers by means of traps and weirs in the major salmon bearing rivers and streams in their territory. They were also harvested at many offshore locations, generally appearing annually in the following order: sockeye, Chinook, Coho, chum and pink. The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. When the proper time came, each of the chiefs directed that traps and weirs could be assembled at the most productive locations to maximize salmon harvesting. Many salmon were smoked and processed as a staple food during winter. Although the San Juan and Gordon Rivers were the major salmon rivers in Pacheedaht territory, other rivers and streams supported salmon runs. Currently, salmon remain a most important resource for Pacheedaht members, and are fished and harvested by many Pacheedaht people individually at many locations, and communally during community fishery events at the San Juan River.
biʕa.t	Sockeye Salmon	*Oncorhynchus nerka*	Sockeye salmon are a favored species of salmon for Pacheedaht members, and were traditionally caught in weirs and fish traps in the San Juan River system and offshore; they continue to be fished and are most important for community members. While the numbers of fish available has declined in recent years, sockeye remains a preferred species of salmon. The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. Sockeye are the earliest salmon species to spawn, and traditionally brought a welcome and abundant source of food in the early summer. Today, they are caught offshore during the summer, and occasionally caught in community fisheries in the San Juan River. Sockeye salmon can be eaten fresh or can be smoked, salted, canned or cooked in coals, and some are half-smoked. Sockeye is considered the best fish for canning. A run of sockeye salmon ascends the San Juan River to spawn in Fairy Lake and also up Renfrew Creek. Pacheedaht Fisheries is actively engaged with other agencies in attempting to restore this run of highly valued fish.
cuwit	Coho Salmon	*Onocorhynchus kisutch*	Coho salmon are also a favored species of salmon, were traditionally the most plentiful, and were caught throughout the marine portion of Pacheedaht territory. They were especially abundant during August and September. Coho spawned in both the Gordon and San Juan rivers and most PFN community members rely upon the coho run in the San Juan River system as an annual supply of fish. The coho run in the San Juan River is eagerly anticipated each year, and many PFN community members fully participate in the harvest of the fish. The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Coho spawned in both the Gordon and San Juan rivers and supplied the Pacheedaht and other First Nations with ample supplies of fish.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
ča.wiɬ or sač ʔup	Pink (Humpback) Salmon	*Oncorhynchus gorbuscha*	Pink salmon were traditionally harvested after chum in the fall during late runs from October to December along the Gordon and San Juan Rivers and Harris Creek, as well as in other creeks and rivers in Pacheedaht territory. PFN members still catch them in rivers as at offshore locations in Pacheedaht territory, and during community fisheries events. Pinks are still a thriving fishery of the territory, making them very valuable to Pacheedaht today. The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Pink salmon were not traditionally a very valuable species, but with the decline of sockeye, have become increasingly sought after.
čičk ʔa.waʔs	Chum (dog) salmon	*Oncorhynchus keta*	The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Chum salmon were abundant in several river systems in Pacheedaht territory, particularly in the Gordon and San Juan rivers, and were traditionally caught in fish traps and weirs at strategic locations in the river; they were also caught at ocean fishing banks. The rights to fish for salmon in rivers and streams in Pacheedaht territory was owned by the chiefs. Within traditional times, and up until the availability of refrigeration, chum salmon were perhaps the most important of salmon as they preserved the longest when smoked, and so provided a reliable supply of food that would last the longest during the winter. PFN members still catch them in rivers as well as in the ocean.
ča.wiɬ or sač ʔup	Spring (chinook) salmon	*Oncorhynchus tshawytscha*	Spring salmon were traditionally, and are currently caught along the coast from April to June and in the Gordon River, the north arm of the San Juan River and Harris Creek from June to August; they were also harvested at other streams and rivers in Pacheedaht territory. They are currently caught at offshore locations, in particular Swiftsure Bank, and during community fishery events in the San Juan River system. Winter springs are a source of fresh fish throughout the winter months, and can be caught inside Port San Juan. The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Chinook salmon do not preserve as well as other salmon species, so are not smoked as often as other species.
qiw.aχ	Steelhead	*Salmo gairdneri*	Steelhead were traditionally caught in the Gordon and San Juan Rivers, and various other rivers and streams on the coast. Some steelhead are occasionally caught in the San Juan River today; the populations in certain streams is well recognized and protected by Oceans Canada. The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. Steelhead were caught in a number of rivers and streams in Pacheedaht territory, and were distributed to family and community members by the fishers, and given to the community dances and ceremonies.
	Coastal Cutthroat Trout	*Salmo clarki clarki*	Trout were caught in the Port San Juan, Gordon River tributaries, and the San Juan River watershed, as well as other streams and tributaries throughout the territory. Pacheedaht used dragnets to fish trout and harpoons were used in swift waters, or would cast a line from the canoe. The line was fastened with a “V” shaped piece of wood on each end; the hook was attached to one end, and a small ball float to the other. Trout are eaten fresh.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
λusibt	Herring	*Clupea harengus pallasi*	Herring and herring spawn used to be available in abundance in Pacheedaht territory. There were several locations in San Juan Harbour where herring spawn was collected by placing weighted cedar or hemlock branches, or bull kelp fronds in the ocean and on which the herring would be deposit spawn. Herring stocks have been depleted due to commercial over-harvesting and few herring now spawn in Pacheedaht territory. It is anticipated that herring stocks could recover if properly managed, and roe will be integrated into the resource management strategy of the Nation. Herring balls were indicators for fishers and whalers. The herring spawn was an integral food source, collected on boughs, or seaweed fronds. It was used as well as a valuable trade resource, and has potential for future economic development. The appearance of herring, and the harvesting of herring spawn was a much-anticipated event and a sign of early spring. Herring spawn is a favourite food for Pacheedaht elders, and highly sought after in intertribal trade.
ɬulu.bi.s	Flounder (unspecified)	*Platichthys stellatus*	Pacheedaht fish for flounder on the sand bar outside the breakers at the mouth of the San Juan River. The traditional technique involved a flounder set line which is similar to a halibut set line, but made of a lighter material and smaller hooks. At least twenty hooks were set on a line. Large horse clam shells were used for sinkers and pile worms were used as bait. The line was set in the daytime during slack tide to prevent it from being washed away. Flounder were also fished with a three-pronged harpoon in the San Juan River because of the swift water. This species of fish can be caught any time of the year and is caught by Pacheedaht members today. In the winter, flounder were fished with baited hooks as they migrated from the river into Port San Juan. In the 1940s the Pacheedaht would seine for flounder, crab and salmon at a fishing ground west of the mouth of the south arm of the San Juan River to provide for the needs of the entire band. This area was used primarily in the winter. Flounder were speared at low tide on winter nights with a pole with two sharp prongs on the end. Lamps were used to attract the fish and they were also caught with a ten foot, three-pronged harpoon, which had barbs similar to those of a straightened salmon hook. They were harpooned from boats, as they could be seen breathing under the sand. A custom three-pronged harpoon with straight metal points about a foot long and a quarter inch in diameter was used. The shaft of the spear was made from spruce or fir. The fish were attracted with a gas lamp tied to the bow of a small canoe. They were struck on the head with the harpoon and held down until they stopped moving. Seine nets were also used; the net was dragged onto the shore and the fish were divided among the community. Some Pacheedaht fished for flounder off rocks with a pole with a file on the end. Flounder is eaten boiled or fried and it can also be filleted and smoked or used to make fish and chips Pacheedaht members do not store this type of fish as it is available year round. In the past, flounder was traded to farmers for vegetables, butter, milk and pork.
Suyu.l	Pacific Halibut	*HIppoglosus stenlepis*	Halibut were caught at a depth of 15-20 fathoms with a drift line at many off shore locations. There were numerous productive fishing sites located in Pacheedaht territory, including but not exclusive to Port San Juan, Sombrio, and most importantly Swiftsure Bank. Many prime fishing locations were located by the presence of seals and whales diving for halibut. The reserve located at Qala:yit IR#3 provided an ample supply of fresh fish throughout the winter. Pacheedaht also would harvest halibut from Swiftsure which they would smoke and cure for winter stores. There were often halibut caught weighing in at 200 lbs or more. Sometimes they were caught using traditional cedar bark rope gear. Traditional lure set up included hand lines with red cloth as bait. Generally multiple canoes would travel to the fishing ground, each man with a line with two hooks on a spreader and a weight attached; the hooks were made from wood, and lines of processed kelp. This kelp line was very specifically processed using fresh river water, knots, and smokehouse techniques, which would preserve the kelp for 3-4 years. The line was dropped until the sinker hit the bottom and then was hauled back up “two lengths or a fathom,” until the hooks hung a few feet off the bank. This was the practice used for anchored fishing. Pacheedaht also fished using the drift line in which the main line was tied to the middle of the spreader. The line extended one fathom further to the sinker, which was usually a piece of sandstone or other stone with a whole in it. These types of sinkers were often snagged or lost and it was difficult to make a hole in the rock, so they were replaced with egg shaped rocks tied on by a non slip hitch knot. The line was sunk to the bottom and then pulled up a half fathom. A hair seal bladder float was then attached to the line and a smaller float was attached five fathoms from the float. The second float served as a marker. Other methods were employed for one man in a small canoe, similar to drift line fishing. When the halibut was pulled up, it was clubbed with a yew wood club. The men fished from daybreak for about three or four hours and caught about thirty halibut each on a good day. Pacheedaht not only harvested for their own use, but they also traded halibut with other Nations in exchange for other valuable items. Also

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
			halibut eggs were gathered in February when the halibut spawned under rocks close to shore. The slightly greyish eggs were dipped in oil and eaten. Halibut caught currently generally range from about 30 lbs to 100 lbs, with records set in the past by elders of 600 lb catches. FSC fisheries target halibut for the abundance of meat. Today Pacheedaht members access the hereditary fishing grounds at Swiftsure Bank, utilizing powerboats, and modern fishing equipment/tackle. There are specific productive fishing locations identified using landmarks, and GIS points at which the fisherman anchors and sets up the gear on downriggers. Bait is set close to the bottom on metal spreaders, and heavily weighted. The natural rhythm of the wave climate creates a jigging motion for the lures attached near bottom.
	Sole	*Pleuronectes vetulus*	Sole used to be speared at a fishing ground off the sand bars at the mouth of the San Juan River. This area has provided a wide range of fish for the Pacheedaht for generations. This place was used for fishing primarily in the winter, but also during the primary fishing season of July to September. Pacheedaht now also fish for sole at other locations, and one spot that is found by using the Walbran waterfalls as a marker. Sole provides an ample food source during the winter, often eaten fresh. Starry flounder is fished by the Pacheedaht in estuary areas.
	Rock Fish (general)		There are many species of rock fish are fished by the Pacheedaht. Rockfish continue to be fished and monitored by the Pacheedaht; species that are listed in the table are Greenling, Kelp Greenling, Sablefish, Ling Cod, Black Rockfish, and Yelloweye Rockfish. Other rockfish utilized by the Pacheedaht include the following species: Canary, Quillback, Yellowtail, Silver Grey, Vermillion, Copper, Tiger, China, and Red Banded. Rockfish are targeted with similar fishing techniques that involved jigging around kelp forests and rock formations. They are also fished offshore at Swiftsure Bank. Pacheedaht fisheries department has become instrumental in monitoring these populations. Rock fish provide a source of food that is reliable and available throughout the year. In the past, cod stomachs were also used to store liquids. Pacheedaht continue to fish rock fish as an important food, social, and ceremonial fishery.
	Greenling (Tommycod)	*Microgadus proximus*	Greenling are caught at many locations in Pacheedaht territory; they were caught in decades past by casting a line with mussels for bait. A bobber was attached to the line or the line was also sunk to the bottom. Small hooks for catching greenlings were made from spruce or yew wood steamed in bull kelp bulbs. Today they are caught by jigging with contemporary fishing gear. Greenlings can be roasted for eating, but are also prepared by frying.
	Kelp Greenling	*Hexagrammos decagrammus*	Kelp greenling were caught in quantities near the former Pacheedaht winter village on San Juan Point, and today are caught in the same location as well as many other others. They are eaten fresh, either by roasting or frying.
	Sablefish	*Anoplopoma fimbria*	Sablefish was among the first commercial fisheries on the BC Coast and was previously available in large quantities. Although the stocks of this fish have been somewhat reduced, they are still caught today. Sablefish were consumed traditionally as a fresh fish resource, and sometimes smoked. Pacheedaht are interested in pursuing this species in finfish aquaculture, as it is becoming a very valuable species on the world market.
tuška.wx̣	Ling Cod	*Ophiodon elongatus*	Lingcod were a fished from canoes by jigging a hand line. There are many lingcod fishing areas, including *?'uöu:?a:* (Swiftsure Bank), in Pacheedaht territory and they are a favoured species. Fisherman target lingcod at certain rock and reef formations. Lingcod have long life spans, and grow to considerable size. These fish provide the community with a large supply fresh fish supply throughout the year.

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
wa.ʔdiɬ	Yelloweye Rockfish (Red Snapper)	*Sebastes ruberrimus*	Red Snapper or Yelloweye Rockfish are caught at many locations throughout Pacheedaht marine territory. They are mostly found at the offshore fishing location of *ʔ'uöu:ʔa:* (Swiftsure Bank). Yelloweye Rockfish are fished by Pacheedaht members today. Red snapper was used for bait because of its bright red colour and the toughness of its skin. The skin of the jaw of a red snapper was used to bait for cod, rock fish or halibut. They continue to be eaten as a delicacy caught primarily on the offshore fishing banks; some grow to a large size.
	Cabezon	*Scorpaenichthys marmoratus*	Cabezon are occasionally caught while fishing in Gordon River, but are more commonly caught when jigging in or near kelp beds. They are currently fished for in the offshore fishing grounds of the *ʔ'uöu:ʔa:* (Swiftsure Bank) area. These fish were not traditionally consumed, as they were thought to have poisonous flesh. In contemporary times they are a targeted fish species. This fish has a blue-coloured flesh, and it has become very valuable on the Asian market.
qit'ap	Sea Bass, Black Bass, Black Rockfish, Blue Rockfish,	*Sebastes malanops*	Fished at various sites in Pacheedaht marine territory. Bass were typically filleted and are excellent eating when barbequed on an open fire. They are abundant around kelp forests, and when caught in large quantities are distributed throughout the community.
yačaʔ	Dogfish Shark	*Squalus acanthias*	Dogfish were fished from the summer fishing station at Qala:yit, IR No. 3. There was another fishery established at a point between Jordan River and Sooke. In the latter part of the 19th century, dogfish became an important commodity for the Pacheedaht and other native groups. The oil from dogfish livers was in high demand for use in early commercial logging operations. Annual production was between five and six thousand gallon barrels of dogfish liver oil, and commanded high prices on the market in Victoria, and at other locations in the United States. Dogfish oil was used for a variety of other purposes as well, as lubricant and for medicinal purposes. Liver oil was sold to the Hudson Bay Company and other buyers in the late 19th century. The fish were caught and the oil rendered from the livers, and stored in wooden barrels for sale to buyers. The dogfish industry made significant money for the whole community over a number of decades. Dogfish are not a targeted species at present, but if the demand increases, Pacheedaht would be prepared to integrate them into resource management planning..
	Sturgeon	*Acipenser transmontanus*	Caught in the estuaries and also caught in crab traps. These fish provided variety to the other species of fish available to the Pacheedaht. Although their numbers have been severely depleted, they are still occasionally seen in the rivers. Eaten as a fresh fish source. Some fish grow to a fairly large size, and as well very old.
	Sand Lance	*Ammodytes dubius*	Found in two major gathering areas within the Port of San Juan, they are caught by Pacheedaht members as bait for other fishing. The sand lance typically burrows in the sandy stretches of coast within Pacheedaht traditional territory. They are a good bait fish, and there is a growing international market for their use as such. They are also a major food source for salmon and cod.
ba·daw' ʔu.ʔupas	Surf Smelt Night Smelt	*Hypomesus pretiosus Spirinchus starski*	Smelt appear in large quantities at a number of locations in Pacheedaht territory, but most Pacheedaht members catch them along the beach near the main village at the mouth of the Gordon and San Juan Rivers. They are not abundant as previously, but still appear in significant numbers. They are fished during warm weather from April until September when the smelt spawn on the beach. In the past, smelting was sometimes a community event. Smelting parties were held on the beach and the fish were cooked over fires. Two types of smelt were, and continue to be, caught. Port San Juan is the only recorded area on Vancouver Island with a population of night smelts. The larger fish, referred to as surf smelt (ba·daw') are fished during the day; the smaller smelt, called ?u.ʔupas, are caught at night. Bonfires were lit on the beach to attract the fish when smelting at night. At either time of day, Pacheedaht catch smelts with a dip net about 3 ft. deep. The net is attached to a frame with two parallel cross pieces attached to a pole. Smelts can be seen on the waves and the fish were scooped with the net when the waves break. The fish can be shoveled over the fisher's shoulder onto the beach or the full dip net is dragged onto the beach. Sometimes, a hole is dug in the sand to hold the fish temporarily until people

Pacheedaht Name	Common Name	Scientific Name	Pacheedaht First Nation Traditional Ecological Knowledge (TEK): Historical Use and Current Use
			put the smelts into buckets. The fish have also been caught with gillnets
	Sardine (Pilchards)		In the mid 20th century, large numbers of sardines, then called pilchards, were harvested by commercial fleets along the west coast of Vancouver Island. Pilchards were abundant in Pacheedaht territory, and used to be caught with nets in San Juan Harbour. Sardines have been relatively scarce for decades. The abundance of sardines in local waters is considered cyclical and it is likely that they will return in large numbers in the future. Sardines are prepared by having their heads cut off and they were fried for eating.
	Shiner Perch/ Red Tailed Perch	*Cymatogaster aggregata, Amphistichus rhodoterus*	Perch are found in the Port of San Juan, and the intertidal estuaries of the Gordon River and San Juan River. They prefer the eel grass beds, kelp forests, and other protected regions of the coast. Pacheedaht still target Red Tail Perch in the surf, and the Shiner perch inside the Port of San Juan. They are eaten fresh.
ku.ma	Ratfish	*Hydrolagus colliei*	Caught while fishing in the offshore fishing grounds at *?'uöu:?a:* (Swiftsure Bank). Pacheedaht did not target this species specifically, but are now looking to the mereging demand for ratfish oil production as an economic opportunity.
t'ačk'ubc	Northern Anchovy	*Engraulis mordax*	In the past, anchovy used to go up the Gordon River and died in lakes, and fresh water potholes. Anchovy are eaten fresh, and used as bait for fishing.
	Wolf Eel	*Anarrhichthys ocellatus*	Wolf eels are occasionally caught in crab traps and similarly were caught in the past in fish traps. Wolf eels are not typically consumed as a food source by Pacheedaht, but international interest is growing
	American Shad	*Alosa sapidissima*	Caught by trollers, and provide an additional food source for Pacheedaht.
	Skate	*Raja stellulata, Raja binoculata*	The whole sandy bottom of the Port of San Juan is an area where star skate were abundant. Skates have been caught in seine nets on the beaches near Gordon River Indian Reserve No. 2. They are now rare and not targeted. In the past, a seine net was dragged to the shore and the catch was shared among the community. These places were used for seine fishing from summer to fall. This species is not targeted at present, as it is rare and should be conserved.

Cumulative Effects Summary

The Pacheedaht's Traditional Marine Use and Occupancy Study, appended to this report, contains details concerning the cumulative effects of colonial and later developments in Pacheedaht territory. These are briefly summarized here.

After Contact, the British Crown asserted sovereignty over what is now British Columbia, established the Crown Colony of Vancouver Island, and later the Colony of British Columbia. British Columbia confederated with Canada in 1871. The federal and provincial governments asserted jurisdiction over Pacheedaht lands, resources, and government. Many developments and historic events have had significant cumulative impacts on Pacheedaht rights people; these are described in detail below. The potential effects of the PMV project should be evaluated in the context of these developments and events, including:[42]

- disease and depopulation after Contact;
- establishment of Indian Reserves and the associated alienation of Pacheedaht lands and resources;
- loss of language, culture and traditions through Indian Residential Schools, anti-potlatch laws, and the efforts of missionaries and Indian Agents;
- industrial logging and associated environmental impacts;
- non-native settlement activities;
- hydroelectric and mining activities;
- acquisition of lands and marine areas for the establishment of federal, provincial and regional parks;
- depletion of fisheries and other marine resources, and the imposition of fishing and marine harvesting regulations including loss of economic rights for harvesting of marine resources; and
- re-routing of the international shipping lanes in 2005 such that they intersect and interfere with safe access to Swiftsure Bank, one of Pacheedaht's preferred fishing areas.

Any further reduction, of any magnitude, in Pacheedaht members' access to fisheries and intertidal resources, or further degradation of these resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights. Similarly, any further damage or degradation of Pacheedaht cultural, archaeological, or other resource harvesting sites on land, or access to these sites, will also comprise

[42] More detailed information on cumulative effects is available in the PFN TMUOS, appended to this report.

significant losses. The additional marine traffic resulting from the RBT2 project would add significantly to the cumulative effects summarized above.

Potential Impacts of RBT2 Expansion

Available information for RBT2

The increase of tanker traffic by 570 vessels per annum, or 1.5 vessel movements per day related to the proposed RBT2 expansion, could directly impact the near shore ecosystems, and will intersect the offshore fisheries located within Pacheedaht's traditional territory. The project would increase the strain on the bearing load of what the Juan de Fuca Strait is able to successfully absorb in terms of pollution, wave action, and volume of large vessels. There is also significant risk associated with the potential of an accident or malfunction, its immediate effects, the long-term environmental damage, and the subsequent ecosystem disturbance related to clean up operations. A major immediate concern for the Pacheedaht First Nation and its members is the commercial marine traffic route direct crossing over their hereditary fishing grounds at Swiftsure Bank

Changes to Quality and Quantity of Resources

The proposed Project's increase in marine vessel movements, and increased risk of an accident or malfunction have the potential to impact Pacheedaht members' current and future harvesting and other rights in many ways.

Impacts to Resource Acquisition

Pacheedaht territory is often described, by community members and visitors alike, as "rich." The extensive scope and quality of resources form the daily and seasonal ways of life for the Pacheedaht First Nation. The anthropologist Eugene Arima had described Pacheedaht's seasonal round in the following:

> In the spring from about as early as April and into May and June, people moved out of Port San Juan, in the case of the Pachena, to fishing camps outside where they caught halibut, red snapper and cod, and dried them. At times they might come inside the bay to catch and dry sockeye. Word was always sent out by those who remained inside when the sockeye fishing was good. The sockeye runs begin about April and last till about July when the last ones go up to spawn and die. People would stay essentially in the outside coast camps until the last part of September when they would return to the inside winter villages to get ready for the fall salmon runs, preparing weirs and traps. The salmon runs go upriver for a month and a half to two months in late September and October. In some years the river is too high so that the salmon could not be caught. In other years the river could be too shallow, making the fish worn out and tired. They tried, of course, to catch the salmon while they were fresh and bright. The sequence of the fall runs is: steelhead, cohoe, spring, humpback and dog salmon. The catches were dried and stored for the winter as the prime economic support of the more or less sedentary large village aggregations with elaborated social organization and much ceremonialism characteristic of Northwest Coast peoples. [43]

[43] Arima, "Notes on the Southern West Coast (Nootka) Natives: Environment and Exploitative Techniques of the P'achi:da7ath of Port San Juan.", 1976, pp 27-40.

Traditional seasonal movements of the Pacheedaht were determined, in large part, by the availability and abundance of various species of marine resources, particularly fish, and specifically salmon. Other marine resources, including the various types of seafood, were available throughout most parts of the year. These activities are still of paramount importance to Pacheedaht today, and can be referred to as "seasonal tasks." Community members rely on these seasonal tasks for cultural survival, and to reinforce Pacheedaht identity.

There have been many cumulative effects referenced earlier in the report, which have compounded since the time of contact. The cultural, spiritual, and environmental degradation are gradually recovering, and Pacheedaht is actively assisting the process. Significant impacts on traditional rights, access to resources, well-being, quality and quantity of resources are being recognized through formal referral processes.

Destruction of Habitat by Proposed Shipping Traffic Increase

Increased freighter traffic associated with the expansion of the Roberts Bank Terminal 2 at Port Metro Vancouver, will increase the volume of traffic in the international shipping lane, which transits along the coastline in Pacheedaht's traditional territory. Just as with any major highway, the increase of ships transiting the Juan de Fuca Strait will increase the risks and pollution associated with shipping and therefore increase risks of potential accident and malfunctions. The quality and quantity of resource use could be impacted by the environmental degradation imposed by the increase in shipping traffic by RBT2 cargo ships.

This project could also impact drinking water sources, as the river estuaries of the San Juan and Gordon are extremely tidal. Both Pacheedaht's core community and Port Renfrew residents rely on drinking water sources from the river estuaries, which are surface wells. In the event of an accident or malfunction, the drinking water sources for the Pacheedaht Nation will be jeopardized.

The greenhouse gas emissions from the increased shipping associated with RBT2 will burden the emissions uptake by the oceanic plankton colonies, resulting in lower air quality above and below the surface. Also the water column will be impacted by increased turbulence that could result in lower visibility and higher dispersal rate of sediments. These factors could influence Pacheedaht's marine resource base, particularly in respect to purity from contaminates and pollution, a particular concern expressed by Pacheedaht members.

Ballast water is regulated by Transport Canada, but is not actively monitored in the Strait of Juan de Fuca. Pacheedaht members have expressed concerns regarding the threat imposed by the contents of these holding tanks which potentially include sewage, waste water, and contaminated holding tank water. They also can hold water from other ports visited in the past, which increase the risk of introducing invasive species to Pacheedaht's territory. The risk of this cross-contamination of water is great as cited on

Fisheries and Oceans Canada's website: "Ballast water contained on international ships is a major pathway by which invasive species can enter Canadian waters."[44]

Shorelines and associated upland resources will be impacted by the increased tanker traffic, both physically from disturbed wave patterns, and as the anticipated pollution drifts towards the coast. The west coast of Vancouver Island has been identified as an area at high risk for impact by drift rafts of garbage and oil to reach its shores; in particular the northern portion of Pacheedaht's territory is described as a catchment area for garbage and oil because of the topography, bathymetry, and ocean currents.[45] This has been recently highlighted by the deposition of tsunami debris, and projections of its eventual distribution on the Pacheedaht coastline. The increase in marine vessel traffic, as proposed by the PMV Project, would increase pollution in Pacheedaht's territory.

Increased Risk of Accidents and Malfunctions

The appended Pacheedaht TMUOS described some of the significant risks associated with the current marine traffic through their territory. Any additions to the current traffic will significantly increase those risks. These risks are associated with potential accidents and malfunctions in Pacheedaht's waterways. Such events could occur in the scenario of a vessel collision, vessel malfunction, earthquake/tsunami, or military or terrorist attack on a commercial vessel. These events raise the potential of an oil spill or loss of cargo, and, in such cases, the associated damage related to clean up operations. In particular, the resulting impacts from an oil spill associated with an accident or malfunction in Pacheedaht's marine territory would ultimately destroy or degrade the ability of Pacheedaht members to live and thrive in their territory. In fact, any oil spill, loss of cargo, and clean up operation would have significant negative effects on Pacheedaht territory, and Pacheedaht members traditional harvesting sites and practices, as well impacts to culturally significant sites.

Community members have been very concerned about the security of the locations and resources adjacent and encompassed by the international shipping lane. Below is a summary list of concerns as communicated by Pacheedaht First Nation people:

1. How will the risk of different types of freight be managed, and associated clean up planning strategies? How are greater risk goods treated, compared to low level risk goods?
2. Who would be able to provide Pacheedaht an emergency response plan for this area?
3. Are the tankers not owned by RBT2? What are the shippers charged, and what is the expected increase of profits for RBT2? Who is then liable for the tanker's safe travel?

[44] Fisheries and Oceans Canada. "Aquatic Invasive Species." Government of Canada, http://www.dfo-mpo.gc.ca/science/enviro/ais-eae/index-eng.htm.

[45] Skowaisa, Curtis. "Transcript, Video and Maps from Interview of Curtis Skowaisa at Pacheedaht Administration Building on February 27, 2014 by Kevin Neary, Kristine Pearson and Madelen Jones." Port Renfrew, BC: Pacheedaht First Nation, 2014.

4. What is the projected increase in traffic beyond this current proposal? How does this relate to the overall increase in tanker traffic transiting through the Juan De Fuca Straight? Have the US tankers been included in this review?
5. Who is liable when a ship gets in trouble? Who responds and what are they capable of effectively responding to? Whose liability is it to look at the adverse impacts on rights/title/culture?
6. Will there be a mechanism to compensate future generations for their losses after an oil spill?
7. Is there a mechanism of compensating economic losses in the event of an oil spill or collision?
8. Would the insurance company declare bankruptcy and Pacheedaht be left with the burden?
9. You can't imagine what a spill would do to a culture and way of life, Pacheedaht still harvests as they did before. PMV is now increasing the risk by elevating the risk of an accident or malfunction.
10. The salmon stocks in Pacheedaht's territory have been decimated by industrial logging practices. Will there be any liability in effecting our traditional resource base that is already compromised?
11. Are there any possibilities for people being liable for the damage to our fish habitat? Can we sue? Pacheedaht have to assert their legal rights.
12. How many ships have you refused to enter Roberts Bank Terminal, due to not meeting safety standards?
13. Where are the WCMRC emergency response centers? Why has Pacheedaht not been considered to be an ultimate emergency response location for the western entrance to the Juan de Fuca Strait?
14. Can you send a list of the permits and approvals that you need federally and provincially to operate, and how the risk is distributed?
15. We can't move away from our homes. Our concerns must be incorporated and taken seriously.
16. Is there a shipping alternative?
17. Is there an ongoing fund set up that would be used for rehabilitation for cumulative impacts?
18. Although the chances are one in a million for an oil spill, the only one that makes a difference is that one. For example tsunamis, terrorism, we don't think about it until it happens. Has Port Metro Vancouver included such variables as tsunamis, earthquakes, and terrorist attacks in the risk assessment?
19. Are you holding this discussion with non-First Nation groups? If so, have those applicable organizations been contacted on Vancouver Island
20. What type of training do the freighters and ship captains mandated to have? Can the freighters carry emergency equipment or oil spill response equipment? Is there testing for drug and alcohol use by the captain or crew of the tankers?
21. Will there be further expansion of RBT2 to RBT3?
22. If the insurance company is liable for the freighter accident, who will cover the costs over their budget?

23. How many tankers are currently moving through the Juan De Fuca, and how many of them are traveling to and from Port Metro Vancouver? What types of freighters do these include?
24. How long does it take for a freighter to come to a stop?
25. Pacheedaht wants long term commitment from proponents that benefit from utilizing the territory. We would like to see money on the table for every barrel of oil that goes by.
26. Have the previous emergency responses and their clean up operations been effective? What strategies made them effective?
27. Is it weather dependant for dangerous vessels to be controlled in Pacheedaht's territory?
28. What is the efficacy of the current equipment used by WCMRC?
29. Is there an agreement between the US and Canada regarding, emergency response and oil spill response?
30. We are still requesting for stochastic modeling in Pacheedaht's territory.
31. Will the exclusion zone be included in RBT2 planning?
32. What is considered a worst-case scenario for an accident or malfunction?
33. Pacheedaht has the weakest response time from the Oil Spill Response Equipment warehouses, particularly at Swiftsure Bank
34. Much of the territory is long shorelines of deep sandy shores which would be very difficult to protect and clean up. The heart of the territory is a 2.5 km sandy beach, how will it be protected.
35. Pacheedaht's whole economy depends on these shorelines.
36. What kinds of weather conditions can RBT2 operate in regarding wave height, wind speeds, and visibility?
37. Pacheedaht is being put at risk, and protecting the territory and resources are the number one concern. That is our cultural survival
38. Tanker traffic out on Swiftsure Bank makes it scary to go out to fish
39. How ready is WCMRC? We have no Coast Guard in the area to respond. There is no comfort in the projected "6 hour" minimum response time. We need a response center here in Port Renfrew- it is the only way
40. There is so much pressure in the Juan de Fuca, and this project escalates the concerns.
41. Even if the resources are restored, they will never come back to what they were before.
42. What impacts will an accident or malfunction have to marine birds, which Pacheedaht harvests for food?
43. I was in Alaska when that oil spill happened. The folks from Ketchikan and area headed to the oil spill site. I don't know if the material was ever totally cleared up. Now science is proving the long lasting cumulative damage.
44. Our coast will never be clear if a spill happens. There is a good chance of a spill happening.
45. 50 or 60 years ago there was an oil spill in Port Renfrew. The barge was on the beach here for years.
46. This coast is known as the graveyard of the Pacific.

47. We have concerns about recovery time. If there is an oil spill how long will it take to clean-up? Will an oil spill kill off everything? How long will it take to be edible again?
48. How prepared is this plan for sending oil tankers through? We don't even have Coast Guard an S.O.S. In 18 minutes a helicopter from Port Angeles picked up the passengers before the Canadians could respond. The Coast Guard situation in this area needs to be looked at.
49. Need a coast guard station real bad. People here don't speak up. Are people in Ottawa listening?
50. There is a lack of ability to respond to an oil spill and the length of time a response would take; a lot of damage can happen in that length of time
51. If there was malfunction or accident and we lost our ocean resources. "That is our supermarket out there." We would have to travel far to get healthy food. We are already suffering with diabetes, etc. We are already forced into buying food that is GMO'ed.
52. There is too much risk involved with RBT2, and it's being pushed through too quickly. Pacheedaht would like to convey that we are not happy, and a lot more work needs to be done

Pacheedaht has been engaged in discussions with the WCMRC organization, whose mandate is to ensure there is a state of preparedness in place and to mitigate the impacts of marine emergencies, including oil spills. Over the last year of conveying the concerns listed and other issues, WCMRC's emergency response plan, and risk mitigation plan have yet to adequately address the concerns expressed by the Nation. Efforts by Pacheedaht to engage with WCMRC are on-going.

Transport Canada's current planning standards mandate that WCMRC should have the capacity to recover oil on water within 10 days, and on-shoreline treatment complete within 50 days, and with the ability to treat 500m of shoreline per day. Pacheedaht's territory encompasses approximately 129 km of shoreline, resulting in a calculation that WCMRC would only be able to handle 25 km of shoreline in 50 days. This represents only 1/6 of the shoreline necessary to reach the standard established by Transport Canada. Unless there is accurate modeling, and appropriate equipment to be deployed in the event of an oil spill catastrophe, WCMRC will not meet this targeted protection level. In the event of a major oil spill or other accident, where large portions of the territory are impacted, it could take up to 258 days, using the current planning standards to clean the entire shoreline in Pacheedaht territory. Pacheedaht continues to have concerns as to whether this is an adequate or effective response timeline, especially within the context of RBT2's proposed increase in shipping traffic.

Changes to the Quality and Quantity of Locations

The maps appended to this report highlight significant locations of traditional, current, and potential future resource use. Access to many of these sites is via boat and therefore the importance of waterways becomes paramount to the assessment of the impacts from this project. All coastal areas are of concern to Pacheedaht, as the contiguous shoreline is interrelated with the Juan De Fuca Strait.

The harvesting of the resources indicated in the species table is site specific and ecologically symbolic. The quality of the locations is directly related to the quality of resources, even in terms of cultural and spiritual resources. All of the locations referenced on the map could be impacted by the increase of shipping traffic from the project, and may be permanently destroyed in the event of an accident or malfunction. Pacheedaht members currently exercise their aboriginal harvesting rights for a variety of resources throughout their territory, a large portion of the diet is comprised of traditional foods. Other First Nations must supplement their harvesting activities with intertribal trade to maintain traditional diets. Swiftsure Bank is an especially productive harvesting location, a treasured location for many generations of Pacheedaht people.

Impacts to Swiftsure Bank

Impacts to species abundances at fishing locations throughout Pacheedaht territory, detailed in the cumulative effects section above, have highlighted the need to acknowledge and protect *?'uöu:?a: (*Swiftsure Bank) as a marine area of critical importance. It provides not only habitat for the diversity of aquatic species frequently observed, but is also essential to the migratory and local species as a breeding ground, rearing area, nursing area and migration route.

?'uöu:?a: is 22 km southwest of the former permanent, and later seasonal, Pacheedaht fishing village of *Qala:yit*, Cullite IR No. 3. There are several main fishing areas on or near *?'uöu:?a:* that have been recorded to date as traditional use and occupancy sites, as shown on the maps included in this report. The gem of Pacheedaht territory is Swiftsure Bank, the center of aquatic resource concentration. Pacheedaht members have caught the following species on and around the *?'uöu:?a:* fishing ground: Sockeye Salmon, Chinook Salmon, Coho Salmon, Pink Salmon, Pacific Halibut, Lingcod, Sablefish, Cabezon, Yelloweye Rockfish, Quillback Rockfish, Tiger Rockfish, China Rockfish, Canary Rockfish, Yellowtail Rockfish, Red Banded Rockfish, Pacific Cod, Silver Grey Rockfish, Pomfret, Shad, Jack Mackerel, Skipjack Tuna, Greenland Turbot, Dogfish, Ratfish, Octopus, and Humboldt Squid. Other species that have been observed by community members in the area include: Humpback Whale, Killer Whale, Grey Whale, Basking Shark, Thrasher Shark, Harbour Seals, Fur Seals, Albatross, Sunfish, Basket Starfish, Stellar Sea Lion, Porpoise, and Starry Skate.

Swiftsure Bank is and has always been, a prime fishing and sea mammal hunting area for the Pacheedaht and for other neighbouring First Nations, and has been integral to the wealth of the nation for centuries. The underwater shoal is a hereditary fishing ground of the Pacheedaht and is shared with Ditidaht and Makah. Pacheedaht currently manages the fishery for all visiting First Nations and monitors the activity within the designated closed area for commercial and sports fishing infringement. The Bank has long been recognized for the immense fishery resources in the area, and was central to commercial interest until it became a designated fishery closure area. The use of *?'uöu:?a:* by the Pacheedaht was recorded as early as 1850 when large halibut, often weighing up to 200 pounds, were caught there, and sold or traded to others. There was a strong market for selling dried or smoked halibut in Victoria in the early 1900s, as well as trade with other First Nations.

The fishing ground that includes the Swiftsure Bank Closure Area is considered a portion of Pacheedaht territory. Pacheedaht have an aboriginal food, social and ceremonial (FSC) fisheries in this area, in recognition of Pacheedaht aboriginal rights.

The Pacheedaht currently issue intertribal fishing protocols to members from all other First Nations tribes. Visitors are issued an intertribal protocol from the hereditary chief, a PFN flag, and are designated in the Fisheries and Oceans Canada radio room. Pacheedaht manages their *?'uöu:?a:* **(**Swiftsure Bank) fishery by collating all the harvesting records for Pacheedaht members and intertribal protocol holders. Fisheries and Oceans Canada is supportive of Pacheedaht's careful management of Swiftsure Bank, a measure that is necessary to protect the abundant natural resources at this irreplaceable locale. The traditional intertribal system of exchange of resources continues today and is well respected by visiting First Nations.

The fisheries at *?'uöu:?a:* **,** Swiftsure Bank are of overwhelming importance to Pacheedaht members, and any additional reduction, of any magnitude, in Pacheedaht members' access to those fisheries, or further degradation of fisheries resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights. Families return every year for the seasonal tasks of preserving fishery resources for their annual household needs; this is also a pivotal time for inter-generational knowledge transfer, and uniting dispersed families for cultural tasks and ceremonies. Swiftsure Bank is a primary harvesting location for much of Pacheedaht's FSC fishery and relied upon for halibut, lingcod, rockfish, salmon. In the future, should stocks recover, it may also be productive for fur seals, sea otters and whales.

Shipping Lane Intersection of Pacheedaht Traditional Territory

The shipping lane change in 2005 by the International Marine Organization (IMO) resulted in major impacts to Pacheedaht's hereditary fishing grounds at Swiftsure Bank. The following are excerpts from the report as to the rationale behind moving the travel corridor:[46]

> The Governments of Canada and the United States propose to amend the existing routing system in the "Strait of Juan de Fuca and its Approaches." This proposal is being made to address concerns relating to traffic congestion in the area of Swiftsure Bank within the traffic separation scheme (TSS).
>
> ….
>
> Traditional commercial and sports fishing areas are in and adjacent to the traffic lanes at the entrance to the Strait of Juan de Fuca. Occasionally, fishing vessels in the area create a conflict for vessels following the TSS, particularly during periods of reduced visibility.
>
> In the development of the 2002 amendments to the TSS, the location of the traditional fishing grounds off the entrance to the Strait of Juan de Fuca was considered. Although it was not possible to completely segregate the TSS from the fishing grounds, the changes were intended to minimize potential conflicts and improve on the previous configuration. Those changes provided routing order and predictability further offshore,

[46] Sub-Committee on Safety of Navigation. "Routeing of Ships, Ship Reporting and Related Matters Amendments to the Traffic Separation Schemes "in the Strait of Juan de Fuca and Its Approaches, Nav 51/3/5." London: International Maritime Organization, 2005.

> thereby reducing conflicts between vessels following the TSS and vessels fishing at the entrance to the TSS. However, the westbound lane through Swiftsure Bank was streamlined and narrowed bringing about incidental conflict within the TSS between fishing vessels and the VTS participants using the westbound exit lane.

In this document, the Canadian government failed to engage with the Pacheedaht First Nation in a consultation process regarding the changed routing. The new route falls directly over the hereditary fishing grounds of the Pacheedaht, and overlaps the rockfish closure area as designated by Fisheries and Oceans Canada

Since this change to the international shipping lane route, Pacheedaht members have become increasing anxious and concerned about their ability to safely access traditional fisheries out at Swiftsure Bank. The Swiftsure Bank is now the intersection of a high volume of large vessel traffic route, an RCA (Rockfish Closure Area) federally preserved fish rearing area, and the Pacheedaht First Nations' hereditary fishing ground; these uses are mutually incompatible. RBT2 expansion could have direct and long-term impacts to this very important area, given the proposed substantial increase in marine vessel movements.

Changes to Use Opportunities and Practices as a Result of RBT2

Port Metro Vancouver initiated engagement with PFN as of May 2015. Shipping operations from the PMV docks have been in operation since 1964 and amalgamated into Port Metro Vancouver in 2008. The current marine vessels transiting the territory has been and will continue to impact Pacheedaht's rights and title, and any increase to shipping activity transiting Pacheedaht's territory as proposed by RBT2 expansion, will further impact the Nation.

Cultural Concerns

There is ongoing and consistent work by Pacheedaht members and resource departments to revitalize and strengthen cultural practices. Many traditional foods, medicines, and materials harvested by Pacheedaht members cannot be bought, and the very disassociation with the activity of harvesting is a detriment to cultural practice. For example, many members are proud of the resurgence of youth experiencing the act of "seafooding", gathering intertidal resources for a feast, and can not imagine the devastation if these resources were to become inaccessible or contaminated. The intergenerational transfer of knowledge will be lost if the harvesting and cultural sites are no longer intact. There is no replacement for the quality of life inherent in Pacheedaht's traditional territory for Pacheedaht people.

The archival research, and TUOS database housed in Pacheedaht are reflected in this report, and provide ample testimony to the rich historical use of resources, vibrant current use, and anticipated future use post treaty. Should a vessel accident or malfunction occur, or at such time as cumulative impacts from the marine traffic effectively prevent Pacheedaht access to marine harvesting sites, all this information would be rendered theoretical only.

The cultural sites located in the Study Area are, in general, at the interface of the ocean. All impacts to marine water quality will have significant effects on cultural and harvesting sites. Further, the visual impacts of increased marine traffic associated with RBT2 will decrease the enjoyment of Pacheedaht members at many of the TUOS sites shown on the PFN RBT2 Maps.

Interference of Harvesting Practices

An increase in marine traffic will disrupt fishing or other marine harvesting activities in many ways such as increasing stress, detracting from the enjoyment of engaging in harvesting activities, interruption of the seasonal tasks, and interfering with traditional connections to Pacheedaht territory. There are currently many forms of disturbance in practicing cultural activities, and in particular those direct safety concerns experienced by Pacheedaht harvesters. This is applicable to intertidal, coastal harvest, and off shore harvest at locations such as Swiftsure Bank.

The updated EIS guidelines for RBT2 describe that impacts to culturally important views capes are of interest. Pacheedaht's extensive shoreline territory, and activity on Juan de Fuca Strait for both accessing/travelling, and harvesting will be altered by the presence of increased marine traffic associated with RBT2. The traffic will also serve to escalate stress and anxiety regarding the risk of accident and malfunctions, as the increased ship movements will be apparent and obvious. The soundscape, associated to the visual and cultural quality of the coastline, will also be impacted in a similar fashion; the noise of cargo ship engines will provide a constant background, diminishing both the quality of harvesting and the harvest itself. One of the more important impacts of the Project would be its detriment on Pacheedaht members' ability safely exercise their Aboriginal rights and to properly express the requisite respect and honour for appropriate resource extraction.

Impacts to Safety While Engaged in Harvesting Activities

With the sensory experiences on land and water being impacted by the Project, Pacheedaht members ability to concentrate and enjoy while harvesting would be diminished. The proposed RBT2 expansion will increase disturbance to the swell patterns in Juan De Fuca Strait, which will create safety and other concerns for Pacheedaht members out on the water, on the shore, and which could also impact the marine resources at the intertidal interface. The large vessel wakes are not consistent with the natural tide and swell patterns, and therefore is not a recognized threat while participating in harvesting activities. Pacheedaht members have stated in interviews and community meetings that they cannot hear a large vessel's wake approaching, as it does not fall within the common repetitive pattern of expected wave actions, and that this could limit their ability to either exit safely from the low intertidal harvesting ground, or prepare their balance while aboard small vessels.

Increased vessel traffic proposed by RBT2 may cause immediate danger to Pacheedaht fisherman and harvesters while traveling to and from fishing grounds and harvesting sites. There have been growing concerns from Pacheedaht members as they have observed the vessels not following the designated shipping lanes for inbound/outbound

traffic, violating maximum speed regulations, using unapproved fuel sources within the Strait of Juan de Fuca, and discharging contaminated ballast water.

A particular safety concern expressed is that cargo ships and other large vessels are difficult to anticipate in foggy conditions, which frequently prevail in the Juan de Fuca Strait and on Swiftsure Bank. Although the large vessels can be heard approaching, it is difficult to determine where and when they might appear, and sometimes they appear suddenly out of the fog, moving at speed, causing fear and anxiety. An increase of shipping traffic related to RBT2 will increase the risks associated with navigation for small vessels in foggy conditions.

Once Pacheedaht members reach the traditional fishing sites at Swiftsure Bank they often anchor, or troll, and will set their gear as appropriate for the desired variety of fish,; this was discussed in the appended TMUOS. The increased marine traffic through the shipping lane intersection of Swiftsure Bank could result in the loss or destruction of fishing or other harvesting gear such as nets, traps, fishing tackle, rods, or other boating gear, and increased risk to fisherman. Many Pacheedaht members expressed fear for their lives, losing gear, and having to relocate from traditional harvesting locations while exercising their aboriginal fishing rights within hereditary fishing areas.

Pacheedaht Economic Initiatives

Pacheedaht First Nation is in the final stages of the BC Treaty process, and are actively engaged in the planning for the post-treaty vision. Many of the treaty initiatives are resource and location based, and increased shipping traffic will have adverse impacts on the post treaty rights and related interests.

Many of Pacheedaht's future economic and employment planning is centered on the promotion of eco-tourism within their land and marine territory. Pachena IR#1 and Gordon River IR#2 envelop the main beach in the heart of the territory, which Pacheedaht successfully operate as a recreational campground. It is currently an important source of revenue and employment for the Nation, and there are plans to construct additional buildings on the site, and expand operations. With the escalated risk of accident and malfunction posed by the RBT2 Project, and the detriment to the view scape and sound scape, there will be direct consequences on Pacheedaht's major revenue generator.

The majority of coastal areas in Pacheedaht territory are managed by Parks Canada (Pacific Rim Park), BC Parks (Juan De Fuca Park), and CRD, the local government (Sandcut Regional Park, Jordan River Regional Park.) These oceanfront recreational areas are reviewed within the treaty process and could be impacted similarly as described for the Pacheedaht campground. Pacheedaht has many traditional village sites of cultural importance, and sacred sites in these parklands that will have continued use and interests to the Nation. The increased traffic and associated risk are of great concern to Pacheedaht cultural practices and for future eco-tourism based business.

All service based business planning is heavily reliant upon the shoreline areas in Pacheedaht territory. These include, but are not limited to restaurants, hotels, whale

watching, guided hiking, cultural demonstrations, canoe tours, etc. The tourists that come to the territory come to experience the land, waters, wildlife, and spiritual integrity of the territory; any detriment in the ability to experience the natural beauty, water quality, air quality, soundscape, species abundances, and safety, will diminish the ability of Pacheedaht people to take advantage of tourism opportunities in their territory. RBT2 could put Pacheedaht's current and future livelihoods directly at risk.

RBT2 would also be interfering with Pacheedaht's fishing rights currently and in the future. The impacts to Swiftsure Bank were discussed in detail above. The future impacts are related to both the future expansion of commercial fisheries licenses, held by PFN, for profitable species, and potentially viable alternatives. As a history of exploitation of local marine resources demonstrates, various species have been targeted over time; whales are an example. Swiftsure Bank was traditionally a very productive whale harvesting site, and will be integral to Pacheedaht's anticipated whale hunt revitalization. The Makah tribe, family to Pacheedaht, has already undertaken their first successful whale hunt, and have plans to proceed with another. Pacheedaht looks forward to the inclusion of whale oil and meat back into their diet, as well as potential economic opportunities. In the event that sea otters, fur seals, sea lions, or other species become abundant and viable, they would be considered by PFN as a similar opportunity as with future whaling initiatives. Whales, sea otter and fur seal populations could all be threatened by the proposed project.

Impacts to Traditional Spirituality

The Pacheedaht First Nation is culturally, spiritually, and hereditarily connected to the many species of sea mammals that live in the Juan de Fuca Strait. Whales in general, and including orcas, are central within the mythology of Pacheedaht. Orcas are regarded as a transformational creature that is involved in many oral traditions and cultural practices. Impacts to any whale population, and disturbance to their migration and feeding patterns would pose a significant threat to Pacheedaht's rights to engage in their spiritual belief systems. Other species that members expressed concerns about with respect to acoustic disturbance are sea lions, seals, humpback whales, sunfish, grey whales, porpoises, and other species no longer abundant, but which could return in numbers in the future such as sea otters, right whales and fur seals.

There are many traditional narratives associated with the whales and other supernatural creatures. [47] In these stylized and extensive accounts, the preferences and practices of traditional whalers, the relationship between the whaler, whales and the spiritual world, the importance of whale hunting, and the ritualized behavior to the hunt are all described in detail.

Today the Pacheedaht First Nation celebrates their whaling heritage in their logo, which portrays a traditional whaler, a whaling canoe, a whaling harpoon and line, and a humpback whale. The recent reassertion of the right to hunt whales by the Makah, opens the possibility of a modern whale hunt for the Pacheedaht and other whaling

[47] Sapir, Eward. The Whaling Indians: West Coast Legends and Stories: Tales of Extraordinary Experience Told by Tom Sa:ya:Ch'apis, William, Frank Williams, Big Fred, Captain Bill and Qwishanishim. Canadian Ethnology Service, Mercury Series Paper 139. edited by Eugene Arima, Terry Klokeid and Katherine Robinson Hull, Quebec: Canadian Museum of Civilization, 2004.

nations, should whale populations and circumstances allow. Whale meat and other traditional foods can improve the health of First Nations people, and the revival of whaling and whaling rituals could reinvigorate native spirituality.[48]

It is the right and responsibility of current Pacheedaht people to ensure that the resources of the ancestors are sustained for future generations. The locations, use of resources, and required mind, body and spiritual connection could be endangered by the RBT2 expansion. Much of the information included in this report has been passed down from Pacheedaht ancestors, and it is the PFN's responsibility to ensure that the youth and future generations have the opportunities to survive and thrive culturally.

Recommendations for Oil Spill Response Planning

In the event of an accident, oil spill, or vessel malfunction, there could be impacts to environmental integrity, economic security, cultural continuity, and mental and spiritual wellbeing of community members. The complex characteristics of the shoreline (i.e. sand beaches, gravel beaches, rock reefs) across an extent of 129 km of marine coastline, combined with restricted access by road and water (distance from harbours, extreme weather conditions) will make protection from oil impacts difficult to implement successfully. The on-water oil collection techniques used in spill response may be hindered or prevented by the marine and meteorological factors experienced within the Juan de Fuca Strait, increasing the probability of shoreline contamination during a spill. Pacheedaht aboriginal rights will be affected by all stages of the cleanup response, and, in particular, by the impacts that would occur at the many traditional use and occupancy sites described in this report.

Oil arriving on shore would contaminate the resource base for an undetermined amount of time. Without the access to Pacheedaht's traditional harvesting areas, food source, spiritual places, and heritage sites, there would also be a reduction in the value, desirability, and utility of proposed Treaty Settlement Lands (TSL). The marine resource base and coastal lands would be impacted in terms of current traditional values, ceremonial purposes, resource quality and quantity, commercial operation potential, recreation interests, housing, and availability for tourism applications. Pacheedaht's territory comprises over 75% of the Juan de Fuca shoreline within Canada. Any damage or contamination would effectively close the gateway to the Pacific Ocean for tourists, entrepreneurs, commercial fisherman, shellfish harvesters, residents, and others. Pacheedaht members would lose the use of the land and waters that are their identity.

Pacheedaht Traditional Use and Occupation Sites

The Pacheedaht First Nation has conducted research on Traditional Use and Occupation Sites (TUOS) since the late 1990s. Futher details on the history, research and methodology for Pacheedaht TUOS information is provided in the PFN TMUOS Report appended to the current report, and is summarized below.

[48] Cote, Charlotte. Spirits of Our Whaling Ancestors. Seattle/VancouverUniversity of Washington Press/UBC Press, 2010. p. 193.

It is important to note that Pacheedaht's traditional use research is on-going, and therefore the PFN TMUOS and the contents of this report represent the current state of the knowledge.

Information Sources

The three main sources of information for the Pacheedaht TUOS include:

1. Interviews: Project-specific interviews conducted with Pacheedaht cultural advisors during the early part of 2014, as well as previous interviews, as described in detail in the appended PFN TMUOS.

2. Archaeology: Information about archaeological sites located in the Study Area obtained from the Archaeology Branch, Ministry of Tourism, Culture and the Arts, Province of British Columbia, supplemented by information from Pacheedaht interviewees.

3. Written: Information about Pacheedaht history, use, and occupation in Pacheedaht territory recorded in archival and published sources, reports, maps and other sources. A summary of this information is available in the PFN TMUOS.

Traditional Use and Occupancy Site Research Methodology

The methodology and guidelines employed for the Pacheedaht TUOS are generally based on those developed, described and recommended by the Province of British Columbia's Traditional Use Study Program.[49] Some adjustments of these guidelines were made for the Pacheedaht TUOS research, particularly in the number, content and structure of fields in the project's Traditional Use and Occupancy Site Database, outlined later.

The methodology employed is considered to be thorough and reliable, and has been used successfully in many other projects. The methodology is used in preference to other traditional use and occupancy research models that focus on the identification of "kill, capture and gather" sites only. The TUOS methodology employed for the Pacheedaht project identifies areas and locations where Pacheedaht members, past and present, exercise their traditional harvesting practices and customary rights, and not just specific points where Pacheedaht members obtain fish, seafood, gather other resources or engage in cultural practices.

The definition of a "Traditional Use and Occupancy Site" is considered to be the same as that for a "traditional use site" presented in the Traditional Use Study Program Guidelines, cited above, and reproduced here:

> "A Traditional use site is any geographically-defined site (on land or water) used traditionally by one or more groups of people for some type

[49] B.C. Ministry of Forests, Aboriginal Affairs Branch. "Traditional Use Study Program Guidelines." Victoria, BC, 2001.

> of activity. These sites may lack the physical evidence of human-made artifacts or structures; yet maintain cultural significance to a living community of people.
>
> Information about the existence and nature of Traditional Use sites is usually obtained through interviews with community Elders, as well as archival and literature searches. Examples may include:
>
> - Locations associated with traditional beliefs of an Aboriginal group about its origins, cultural history or world view;
> - The location of trails, sacred sites and resource gathering sites such as berry grounds;
> - A location where a community has traditionally carried out economic, artistic or other cultural pursuits important to maintaining its identity; or
> - The traditional home of a particular cultural group.
>
> Under certain circumstances, information pertinent to understanding some of these resources is enhanced through archaeological investigation."

For this report, the traditional use and occupancy sites recorded in the Pacheedaht TUOS database and GIS are sites which:

- were pointed out and described by Pacheedaht members in interviews or on groundtruthing trips as sites customarily used or preferred for traditional activities;
- are described in interviews or documentary sources as locations where resources are harvested on a regular basis, particularly where they are abundant, reliable, or possess desirable qualities;
- are archaeological sites; or
- qualify based on other criteria included in the definition provided above.

The Pacheedaht TUOS research incorporates information from a number of previous research initiatives and projects, and particularly from the Traditional Use Study of the Pacheedaht First Nation Territory completed in 1999[50] and the ongoing Pacheedaht Heritage Project. During these projects, information has been compiled and entered into a Pacheedaht Traditional Use and Occupancy Site Database, and its associated GIS database. These databases have been used as information sources for the current report. The PFN TUOS information has been supplemented from the time of the completion of the PFN TMUOS Report in 2014.

[50] Dewhirst, John, and Ruben Wackley. "A Traditional Use Study of the Pachedaht [Pacheedaht?] First Nation Territory, Volume 1: Report (Draft). Prepared for the Aboriginal Affairs Branch, B.C. Ministry of Forests. Prepared by Pacheedaht First Nation, Port Renfrew, B.C.". Port Renfrew, B.C.: Pacheedaht First Nation/Archaeo Research Ltd., 1999.

Information about Pacheedaht traditional use and occupancy sites included in the Pacheedaht TUOS records has been mostly provided by Pacheedaht people through interview and groundtruthing trips. Brief biographies for many of the Pacheedaht interviewees are provided in the PFN TMUOS report provided as an appendix. The Pacheedaht people interviewed hold a wealth of information acquired over lifetimes of experience while engaged in fishing, hunting, plant gathering, seafood gathering, berry picking, cedar bark gathering and while engaged in other traditional and cultural activities. Most of the people interviewed spent much of their early years with parents, elders and relatives out on the territory engaged in traditional activities, and have continued to pursue these activities later in life. The information obtained through interviews and groundtruthing trips is detailed and reliable.

The Pacheedaht Heritage Project has compiled, over the last three years, information from an array of archival, published and unpublished documents, including many records that are specific to Pacheedaht. Some information about Pacheedaht TUOS sites was derived from these records.

The Pacheedaht Traditional Use and Occupancy Site Database, and the associated GIS data, are the primary tools for recording and managing information for the Pacheedaht Traditional Use and Occupancy Sites.

Table 1 outlines a selection of the database fields that provide the most relevant information about the sites recorded in the TUOS database. The database facilitates querying and analysis of Pacheedaht TUOS data and the management and updating of information about sites.

Table 1: TUOS Database Fields

Field Name	Description
PFN#	A unique catalogue number for each Traditional Marine Use and Occupancy Site.
Field ID	Other identification number(s) associated with a Traditional Marine Use and Occupancy Site, such as an Archaeological Site designation (DdSc-001), or a site number from a project interview (PFN075:012).
Description/Location	A verbal description of the geographic location of the site as well as pertinent details of site use and history.
Pacheedaht Name	The name of the site in Pacheedaht.
Translation of Name	The English translation of the Pacheedaht name for the site (if available).

Field Name	Description
Activity	The classification of the site at the "Activity" level, as described in "Site Classification" (see below). A site may be classified for several "Activities."
Entity	The specific resources or items found, harvested or used at the site, as described in "Site Classification" (see below). A site may include several "Entities."
Category	Category type(s) for the site, as described in "Site Classification" (report section below). A site may be included in more than one "Category."
References	The name or names of the people interviewed who provided information about the site, or other sources of information about the site.
Date Modified	Date on which last data entry occurred for a site record.
Comments	Commentary about site beyond that included in other fields.

All TUOS sites recorded in the TUOS GIS and Database primarily use three database fields (Activity; Entity; Category) for the purposes of data management, site analysis, and for presentation on the Project Maps. The classification of sites has been modified for the current report, and for the associated PFN RBT2 maps, to include criteria recommended by PMV.

The classification of TUOS sites into categories is not exclusive. Individual sites may meet the criteria for more than one category; for example, a site might be classified as a Dwelling site but may also be a Culture History site. The following TUOS site analysis includes information for more sites than those reported in the PFN TMUOS Report, resulting from additional research efforts.

PFN TUOS Site Analysis and RBT2 Maps

The PFN RBT2 Maps included in Appendix C illustrate the PFN TUOS sites that are located within or are intersected by the project's Study Area. The sites illustrated on these maps include site categories suggested by PMV as well as those included in normal PFN TUOS analysis.

The PFN RBT2 Maps are considered confidential, and are supplied to PMV for the purposes of the development of the EIS. The descriptions and analysis of PFN TUOS sites in this written report are not considered confidential.

Table 2 outlines the TUOS site categories portrayed on the PFN RBT2 Maps.

Table 2: Summary Overview of RBT2 Maps and Site Categories

Map	# of Sites	% of Site Total (n = 521)
Map 1: Archaeological Sites	59	11.3%
Map 2: Culture History Sites	176	33.8%
Map 3: Dwelling Sites	90	17.3%
Map 4: Coastal Birds	15	2.9%
Map 5: Fishing Sites	221	42.4%
Map 6: Marine Invertebrate Sites	105	20.2%
Map 7: Marine Vegetation Sites	7	1.3%
Map 7: Terrestrial Vegetation Sites	55	10.6%
Map 8: Terrestrial Wildlife Sites	58	11.1%
Map 9: Travel Sites	55	10.6%
Map 10: Marine Mammal Sites	30	5.8%
Map 11: All Sites	521	100%

There are currently 720 sites in the Pacheedaht First Nation TUOS site database, of which 521, comprising 72.4% of the PFN TUOS site total, are within or intersected by the Study Area. The locations of the 521 TUOS sites in the Study Area are portrayed on Map 11 in Appendix C.

Following are descriptions of Maps 1 through 11.

Map 1: Archaeological Sites
Map 1 shows the locations for the 59 Archaeological category sites in the Study Area. These comprise 11.3% of the total 520 TUOS sites in the Study Area. The archaeological sites include those recorded with the Province of BC's Archaeology Branch (39 sites) but also include sites described in interviews by Pacheedaht people as containing physical or archaeological remains (20 sites). Archaeological sites are significant to the Pacheedaht as material evidence of activities dating back many generations. They have cultural and spiritual importance as well, particularly those containing remains of Pacheedaht ancestors.

Map 2: Culture History Sites
Map 2 shows the locations for the 176 Culture History category sites in the Study Area. These comprise 33.8% of the total 520 TUOS sites in the Study Area. The Culture History Sites are those PFN TUOS sites that include the following site Activities.

- Named Place (133 Sites) – Geographic locations with traditional Pacheedaht names;
- Traditional History (32 Sites) - Sites where tribal history events occurred (e.g. Origin history site, migration site, etc.);
- Ceremonial/Sacred Site (23 Sites) - Locations described by Pacheedaht people as having spiritual or sacred qualities or used for traditional ceremonies or rites.;

- Burial Site (19 Sites) – Locations where remains of Pacheedaht people are known to be located, or previously located;
- Medical/Therapeutic Site (4 Sites) - A place known for the presence of rare or abundant species of plants, or other materials, used in the treatment of illness, or a location known to have therapeutic qualities such as a ritual bathing site; and
- Non-Human Being Site – (3 Sites) - A location where legendary creatures such as Thunderbird, Sasquatch, etc. are known to frequent or where they have been sighted.

Map 3: Dwelling Sites
Map 3 shows the locations for the 90 Dwelling category sites in the Study Area. These comprise 17.3% of the total 520 TUOS sites in the Study Area. Dwelling locations are sites where Pacheedaht people reside(d) on a permanent or temporary basis, including villages, houses, cabins, tents, lean-tos and campsites.

Map 4: Coastal Birds
Map 4 shows the locations for the 15 Coastal Birds category sites in the Study Area. These comprise 2.9% of the total 520 TUOS sites in the Study Area. Coastal Birds sites include locations where Pacheedaht people hunt, or have hunted, for birds.

Map 5: Fishing Sites
Map 5 shows the locations for the 221 Fishing category sites in the Study Area. These comprise 42.4% of the total 520 TUOS sites in the Study Area. The Fishing category sites include locations where Pacheedaht harvest fish. The large number of Fishing sites indicates the importance of this activity to Pacheedaht traditional and current practices.

Map 6: Marine Invertebrate Sites
Map 6 shows the locations for the 105 Marine Invertebrate category sites in the Study Area. These comprise 20.2% of the total 520 TUOS sites in the Study Area. Marine Invertebrate Sites include locations in the intertidal or subtidal zone used for Pacheedaht seafood collection (clams, mussels, barnacles, urchins, chitons, etc.); and riverine locations for the collection of freshwater shellfish. The large number of Marine Invertebrate Sites indicates the importance of this activity to Pacheedaht traditional and current practices.

Map 7: Marine Vegetation Sites and Terrestrial Vegetation Sites
Map 7 shows the locations for the 7 Marine Vegetation Sites in the Study Area. These comprise 1.3% of the total 520 TUOS sites in the Study Area. These are sites that are, or have been, used by Pacheedaht people for harvesting and drying seaweed. Map 7 also shows the locations for the 55 Terrestrial Vegetation Sites in the Study Area. These comprise 10.6% of the total 520 TUOS sites in the Study Area. These are sites that are, or have been, used by Pacheedaht people for collecting plants, berries, ferns or mushrooms.

Map 8: Terrestrial Wildlife Sites

Map 8 shows the locations for the 58 Terrestrial Wildlife Sites in the Study Area. These comprise 11.1% of the total 520 TUOS sites in the Study Area. The Terrestrial Wildlife Sites are locations that are, or have been, used by Pacheedaht people for harvesting elk, deer, and for trapping for furbearing animals.

Map 9: Travel Sites
Map 9 shows the locations for the 55 Travel Sites in the Study Area. These comprise 10.6% of the total 520 TUOS sites in the Study Area. The Travel Sites are locations that are, or have been, used by Pacheedaht as preferred transport or travel routes, on water or land, including trails, canoe routes or travel corridors on water.

Map 10: Marine Mammal Sites
Map 10 shows the locations for the 30 Marine Mammal Sites in the Study Area. These comprise 5.8% of the total 520 TUOS sites in the Study Area. The Marine Mammal Sites are locations that are, or have been, used by Pacheedaht people for hunting seals and sea lions. Hunting sites for fur seals, sea otters and whales are not shown as these species have been protected for many decades.

Map 11: All Sites
Map 11 shows the locations for all 520 TUOS sites in the Study Area.

Traditional Use and Occupancy Site Summary

There are currently 720 sites in the Pacheedaht First Nation TUOS site database, of which 521, comprising 72.4% of the PFN TUOS site total, are within or intersected by the RBT2 Study Area. The locations of the 521 TUOS sites in the Study Area are portrayed on Map 11 in Appendix C. Maps 1 through 10 illustrate various categories of TUOS sites in the Study Area. The information for Pacheedaht TUOS sites in the Study Area, including contemporary and traditional use, provides evidence of Pacheedaht use and occupation in the Study Area that is extensive and intensive. The information portrayed on the PFN RBT2 Maps is accurate and reliable.

The focus of the TUOS analysis presented above has focused on presenting the “where and what” of traditional use and occupancy sites and areas. However, recording traditional and contemporary use places and activities as dots, lines, and polygons on maps runs the risk of decontextualizing the interconnectedness of these places and activities from their lived histories for Pacheedaht people. Spiritual sites such as bathing sites for cleansing, or Named Places, for example, do not exist in isolation from salmon fishing or settlement areas. Such sites are all part of the Pacheedaht cultural landscape and Pacheedaht history. Participation in traditional use and contemporary activities on this landscape produces and expresses Pacheedaht identity.

Conclusion

This report presents information about the Pacheedaht First Nation related to their aboriginal interests (rights and title) and traditional use and current use of lands, waters and resources, as related to the Port Metro Vancouver Roberts Bank Terminal 2 Project. The report has been prepared with consideration of the "Updated Guidelines for the Preparation of an Environmental Impact Statement, Pursuant to the Canadian Environmental Assessment Act, 2012 for the Roberts Bank Terminal 2 Project proposed by Port Metro Vancouver" (RBT2 EIS) dated April 17, 2015. It has also based on topics and formatting requested by Port Metro Vancouver representatives.

The purpose of the Pacheedaht First Nation Traditional Use and Occupancy Study Report for Port Metro Vancouver (PMV) Roberts Bank Terminal 2(RBT2) Project is to update TUOS information for PMV to review and include in their supplementary report. The locations, resources, and activities of traditional importance to the Pacheedaht First Nation that could be affected by increased marine vessel traffic by RBT2, or by any associated accidents or malfunctions, are represented in this report. The report should not be viewed as comprehensive as additional research, interviewing and groundtruthing would undoubtedly uncover additional information.

Pacheedaht Territory is located on the southwest coast of Vancouver Island, generally bounded on the east near Point No Point and Sheringham Pt., and on the west near Cullite Creek; and extending inland to include the drainages of the rivers and streams on Vancouver Island between those two locations. The Pacheedaht also have aboriginal fishing and hereditary harvesting rights at *?'uöu:?a:* **(**Swiftsure Bank).

The Pacheedaht regard themselves as a distinct First Nation with a history in their territory that extends back over centuries. A summary history of Pacheedaht is presented in the report, as well as information about the locations of Pacheedaht villages and campsites. Historical records dating from the Contact and Colonial Periods record that Pacheedaht people have occupied their territory continuously, that their livelihood and economy was based primarily on marine resources, and that they traded in marine resources with other First Nation and with white explorers and traders.

During traditional times, the Pacheedaht engaged in a seasonal round. Land and sea mammal hunting, and gathering of plants, berries and other resources occurred when resources were seasonally available, of particular quality, abundant or best to obtain.

Throughout the vast majority of their long history, Pacheedaht ancestors enjoyed unrestricted access to the wide variety of resources in the ocean, rivers and lands in their territory. They gained a wealth of knowledge about their territory based on direct personal observations and experiences. This wealth of information is today commonly referred to as Traditional Ecological Knowledge (TEK) and is generally considered distinct from "scientific knowledge." Tables of TEK information about resources located in, along or near the marine environment in Pacheedaht territory are presented in the report.

Since Contact, many developments and historic events have occurred to the Pacheedaht and within their territory that have had significant impacts on their traditional rights, as well as on the land and marine portions of their territory. The potential effects of the proposed project should be evaluated considering the context of these developments and events. The cumulative effects include, but are not restricted to, topics described in the report, including:

- disease and depopulation after Contact;
- establishment of Indian Reserves and the corollary alienation of Pacheedaht lands and resources;
- loss of language, culture and traditions through Indian Residential Schools, anti-potlatch laws, and the efforts of missionaries and Indian Agents;
- industrial logging and associated environmental impacts;
- non-native settlement activities;
- hydroelectric and mining activities;
- acquisition of lands and marine areas for the establishment of federal, provincial and regional parks; and
- depletion of fisheries and other marine resources, and the imposition of fishing and marine harvesting regulations including loss of economic rights for harvesting of marine resources.
- re-routing of the international shipping lanes in 2005 such that they intersect and interfere with safe access to Swiftsure Bank, one of Pacheedaht's preferred fishing areas

The proposed RBT2 project's increase in marine vessel movements, and the effects of a potential accident or malfunction, have the potential to impact Pacheedaht members' current and future harvesting and other rights in many ways. Some topics related to potential impacts of the proposed project, as derived from available information about the RBT2, and as expressed by Pacheedaht members, are presented in the report in some detail including:

- pollution, including water quality and air quality;
- impacts to economic interests, view scape and soundscape;
- cultural concerns and impacts to traditional spirituality
- significance of Swiftsure Bank
- Transport Canada standards and changes in the shipping lanes in the Strait of Juan de Fuca;
- potential changes to quality and quality of resources and TUOS sites.
- cargo ship wakes and safety while harvesting;
- risk of accidents and malfunctions;
- status of WCMRC preparedness with respect to Pacheedaht territory;
- recommendations for oil spill and vessel malfunction response planning;

The report concludes with a presentation of information about the methodology and results of the project's research concerning Pacheedaht traditional use and occupancy sites located within the project Study Area. All traditional use and occupancy Sites have been classified, at the most general level, according to ten "Categories" that facilitate the presentation of information on the Project Maps, presented according to the following site "Categories" and portrayed on the project maps, provided in Appendix C of the report.

Map 1: Archaeological Sites
Map 2: Culture History Sites
Map 3: Dwelling Sites
Map 4: Coastal Birds
Map 5: Fishing Sites
Map 6: Marine Invertebrate Sites
Map 7: Marine Vegetation Sites
Map 7: Terrestrial Vegetation Sites
Map 8: Terrestrial Wildlife Sites
Map 9: Travel Sites
Map 10: Marine Mammal Sites
Map 11: All Sites

There are currently 720 sites in the Pacheedaht First Nation TUOS site database, of which 521, comprising 72.4% of the PFN TUOS site total, are within or intersected by the RBT2 Study Area.

Photographs

Figure 3: Community fishing is an important part of Pacheedaht culture and identity.

Figure 4: Fishing at Swiftsure Bank is a part of an unbroken Pacheedaht tradition, and creates cultural continuity.

Figure 5: Pacheedaht people enjoy catching smelt in the surf along the beach at the head of Port San Juan.

Figure 6: Pacheedaht weavers collect the special grasses for making traditional style baskets along coastal shorelines.

Figure 7: Harvesting chitons, one of the traditional "seafoods" collected by Pacheedaht community members when the tide is out.

Figure 8: Gooseneck barnacles are another great seafood delicacy enjoyed and savored by Pacheedaht members.

Figure 9: Pacheedaht students learning about plant harvesting.

Figure 10: Preparation of a pit for cooking, a traditional way of preparing foods, including plants, fish and meat.

Figure 11: Abundant sea lion Rookery located off the shores of Qala:yit IR #3.

Figure 12: Grey whales are a frequent sight, known to feed on the rich fishery resources at Qala:yit IR #3 and Swiftsure Bank.

Figure 13: ***Elders share their pride while fishing out at Swiftsure Bank.***

Figure 14: Rare sighting of a sunfish out at Swiftsure Bank.

Figure 15: Sports fisherman activity within the closed area at Swiftsure Bank.

Figure 16: Cargo ship seen transiting Swiftsure Bank closure, August 2015.

References

Arima, Eugene and John Dewhirst. “Nootkans of Vancouver Island.” In: *Handbook of North American Indians, Volume 7, Northwest Coast.* Edited by Wayne Suttles, 391-411. Washington, D.C.: Smithsonian Institution, 1990.

Arima, Eugene, Denis St. Claire, Louis Clamhouse, Joshua Edgar, Charles Jones, and John Thomas. “From Barkley Sound Southeast.” In: *Between Ports Alberni and Renfrew: Notes on West Coast Peoples. Canadian Ethnology Service, Mercury Series Paper*, 203-411. Hull, Quebec: Canadian Museum of Civilization, 1991.

Arima, Eugene. "Notes on the Southern West Coast (Nootka) Natives: Environment and Exploitative Techniques of the P'achi:da7ath of Port San Juan." Unpublished manuscript. National Historic Parks and Sites Branch, Parks Canada. Ottawa; Copy held at Archaeology Division, Royal British Columbia Museum, Victoria, 1976.

Annual Report for the Department of the Interior for the year ended 30th June, 1874. Part 2. Department of Interior. Ottawa: Canada, 1875. p. 71.

B.C. Ministry of Forests, Aboriginal Affairs Branch. "Traditional Use Study Program Guidelines." Victoria, BC, 2001.

Banfield, William E. “Vancouver Island: Its Topography, Characteristics, Etc.: II the Netinett District.” *Victoria Gazette*, 14 August 1858.

Bates, Ann M. "Affiliation and Differentiation: Intertribal Interactions among the Makah and Ditidaht Indians. Unpublished PhD Dissertation." Indiana University, 1987.

Blenkinsop, George. "Report to I.W. Powell, Commissioner of Indian Affairs, by G. Blenkinsop, 23 September, 1874." Ottawa: Department of Indian Affairs, RG 10, vol. 3614, file 4105, 1874.

Bouchard, Randy. “Preliminary Notes on the Pacheenaht Indian Knowledge and Use of the Area between Jordan River and San Juan Point.” Report prepared for I.R. Wilson Consultants Ltd. and BC Parks. Victoria, 1994.

Branch, B.C. Ministry of Forests. Prepared by Pacheedaht First Nation, Port Renfrew, B.C.". Port Renfrew, B.C.: Pacheedaht First Nation/Archaeo Research Ltd., 1999.

Brown, Robert. “Introduction.” In: *The Adventures of John Jewitt*, edited by Robert Brown. London: Clement Wilson, 1896.

Canadian Environmental Assessment Agency. "Updated Guidelines for the Preparation of an Environmental Impact Statement, Pursuant to the Canadian Environmental Assessment Act, 2012 for the Roberts Bank Terminal 2 Project Proposed by Port Metro Vancouver." Ottawa: Canada, 2015.

Cook, James. A Voyage to the Pacific Ocean, Book Iv. Volumes 1 and 2 Written by Captain James Cook, Volume 3 Written by Captain James King. London: H. Hughs, 1784. pp. 320-322.

Cote, Charlotte. Spirits of Our Whaling Ancestors. Seattle/Vancouver University of Washington Press/UBC Press, 2010. p. 193.

Dewhirst, John, and Ruben Wackley. "A Traditional Use Study of the Pacheedaht First Nation Territory, Volume 1: Report (Draft). Prepared for the Aboriginal Affairs

Fisheries and Oceans Canada. "Aquatic Invasive Species." Government of Canada, http://www.dfo-mpo.gc.ca/science/enviro/ais-eae/index-eng.htm.

F.W. Howay, ed. Voyages of the "Columbia" to the Northwest Coast, 1787-1790 and 1790 -1793. Boston, Massachusetts Historical Society, 1941. (Reprinted by The Oregon Historical Society, 1990).

Harris, Cole. Making Native Space - Colonialism, Resistance and Reserves in British Columbia. Vancouver: UBC Press, 2002.

Inglis, Richard and James C. Haggarty. "Pacific Rim National Park Ethnographic History." Parks Canada Report Series No. 257. Calgary: Manuscript on file with Parks Canada, Western Region, 1986.

Jones, Charles and Stephen Bosustow. *Queesto, Pacheenaht Chief by Birthright.* Nanaimo, B.C.: Theytus Books. 1981.

Jones, Charles Jr., and Roberta Jones. 1998. Interview: transcription notes of Charles Jones Jr. and Roberta Jones interview with John Dewhirst and Chris Mundigler at Gordon River Reserve, 10 February 1998. *Pacheedaht Traditional Use Study. Interview catalogue number: Pach056.* Port Renfrew, BC.

Jones, Charles Sr. and Eugene Arima. Annotated Map of Juan De Fuca Strait Depicting Pacheedaht Place Names." Unpublished manuscript. Pacheedaht First Nation. Port Renfrew, BC, 1973-1974.

Jones, Ida. 1993. Statutory Declaration of Ida Jones translated to her by her daughter Flora Charles, signed by the Commissioner for taking Affidavits for BC, 8 October 1993. Pacheedaht First Nation: Port Renfrew, BC.

Kirchner, F. Matthew. "The Aboriginal Right to Sell Fish, Ahousaht Nation Et Al. V. Canada." (2010). http://www.ratcliff.com/sites/default/files/publications/The Aboriginal Right to Sell Fish.PDF.

Library and Archives Canada. "Indian Affairs Annual Reports, 1864-1990." www.collectionscanada.gc.ca, http://www.collectionscanada.gc.ca/databases/indianaffairs/index-e.html. 1905 Annual Report.

Martinez, Estevan Jose. "Diary of 1789 Voyage to Nootka. Translated from Spanish Copy in Bancroft Library by William L. Schurz." Victoria, B.C.: B.C. Archives, Add.Ms. 291, 1789.

Manuel Quimper. "Descrision General Del Estrcho De Juan De Fuca." Mexico City: Archivo General de la Nacion, Historia, Tom. 68. Typescript at BC Archives AA10M57, v.6, 1790.

Meares, John. *Voyages Made in the Years 1788 and 1789, from China to the North West Coast of America*. 2 vols. Vol. II, London: Logographic Press, 1790.

Nelson, Bryan. 2015. Correspondence to Pacheedaht Chief and Council, Re: RBT2 - Pacheedaht First Nation's Current Use in the Marine Shipping Area, 23 July 2015. Vancouver: Port Metro Vancouver.

O'Reilly, Peter. "Correspondence: O'Reilly, Indian Reserve Commissioner to Superintendent General of Indian Affairs, 3 March 1890." In A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 12: File 29858-5, Minutes of Decision, Correspondence & Sketches - P. O'Reilly, April 1889 to January 1892, Ottawa, 1890.

O'Reilly, Peter. "Minute of Decision of IR #4, October 30,1894." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1894.

O'Reilly, Peter. "Minutes of Decision: Pacheena Indians, 18 October 1882." In A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 10: File 29858-3, Volume No. 10. Minutes of Decision, Correspondence & Sketches - P. O'Reilly, June 1882 to February 1885, 319-25. Ottawa, 1882.

Pacheedaht First Nation. "Pacheedaht First Nation Traditional Marine Use and Occupancy Study (TMUOS) 2014 Final Report." Prepared by Pacheedaht Heritage Project and Traditions Consulting Services, Inc. Port Renfrew, B.C.: Pacheedaht First Nation, 2014.

Port Metro Vancouver. "Roberts Bank Terminal 2 Project: Marine Shipping Supplemental Overview, Draft. May 25, 2015." Vancouver: Port Metro Vancouver, 2015.

Port Metro Vancouver. Roberts Bank Terminal 2 Project, Marine Shipping Study: Pacheedaht First Nation, Current Use of Lands and Resources for Traditional Purposes – Summary of Existing Conditions - Draft. Vancouver: Vancouver Port Metro, 2015.

Powell, I.W. "Correspondence: Powell, Commissioner of Indian Affairs, 31 October 1874." Library and Archives Canada. RG 10, Volume 3614, File 4105, Microfilm reel C-10107. Reports on the West Coast of Vancouver Island and of Barclay Sound (Map, Census, Report). Ottawa, 1874.

Royal Commission on Indian Affairs for the Province of B.C. "Meeting with the Pacheedaht on their IR #1 Reserve on May 6, 1914." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1914.

Sapir, Edward. The Whaling Indians: West Coast Legends and Stories: Tales of Extraordinary Experience Told by Tom Sa:ya:Ch'apis, William, Frank Williams, Big Fred, Captain Bill and Qwishanishim. Canadian Ethnology Service, Mercury Series Paper 139. edited by Eugene Arima, Terry Klokeid and Katherine Robinson Hull, Quebec: Canadian Museum of Civilization, 2004.

Skowaisa, Curtis. "Transcript, Video and Maps from Interview of Curtis Skowaisa at Pacheedaht Administration Building on February 27, 2014 by Kevin Neary, Kristine Pearson and Madelen Jones." Port Renfrew, BC: Pacheedaht First Nation, 2014.

Sub-Committee on Safety of Navigation. "Routeing of Ships, Ship Reporting and Related Matters Amendments to the Traffic Separation Schemes “in the Strait of Juan De Fuca and Its Approaches, Nav 51/3/5." London: International Maritime Organization, 2005.

Suttles, Wayne. “Central Coast Salish.” In: *Handbook of North American Indians, Volume 7, Northwest Coast*. Edited by Wayne Suttles, 453-75. Washington, D.C.: Smithsonian Institution, 1990.

Swadesh, Morris, and Mary Haas. "Nitinat Field Notebooks " American Philosophical Society Library, Franz Boas Collection of American Linguistica, Edward Sapir Nootka Materials, W2b.2, 372.1, Microfilm reels 51 and 52. Philadelphia, 1931. Notebook iv, pp. 23 -32. Translated copy by John Thomas at Royal BC Museum, West Coast Project Files, Folder Nitinaht.

TERA. "Supplemental Traditional Marine Resource Use - Marine Transportation Technical Report for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project." Calgary: CH2M Energy Canada, Ltd., 2014.

Thomas, John, and Thom Hess. "An Introduction to Nitinaht Language and Culture." Victoria, BC: Department of Linguistics, University of Victoria, 1981.

Wagner, Henry R. “Quimper's Diario, 1790 (Extracts).” In: *Spanish Explorations in the Strait of Juan De Fuca,* 91-132. Santa Ana, California: Fine Arts Press, 1933. Reprint A.M.S. Press, 1971.

Wagner, Henry R. 1933. "Spanish Explorations in the Strait of Juan De Fuca." In *Spanish Explorations in the Strait of Juan de Fuca,* Santa Ana, California: Fine Arts Press.

Appendix A: PMV Report (Draft) and TERA Report

Some of Pacheedaht's concerns about the "Roberts Bank Terminal 2 Project, Marine Shipping Study: Pacheedaht First Nation, Current Use of Lands and Resources for Traditional Purposes – Summary of Existing Conditions" (PMV Report) are briefly summarized here.

Although the PMV Report lists a variety of source documents, it relies almost exclusively on summary information provided in a report titled "Supplemental Traditional Marine Resource Use - Marine Transportation Technical Report for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project," produced by TERA in 2014 (TERA Report).[51]

The PMV Report relied on obtaining information from the TERA Report for information about Pacheedaht in preference to a Traditional Marine Use and Occupancy Study, prepared by the Pacheedaht First Nation in 2014 (PFN TMUOS). The PFN TMUOS was publicly available, and is listed in the References Cited section of the PMV Report. The PFN TMUOS presents extensive and accurate information about traditional use and current use of resources concerning the marine portion of their territory. The PFN TMUOS presents detailed information from the Pacheedaht First Nation's Traditional Use and Occupancy database and associated GIS (PFN TUOS). The Pacheedaht have compiled information about TUOS sites over many years, and possess the most complete and accurate source of information for Pacheedaht traditional and current use activities and use of resources. The PFN TMUOS also presents extensive information on Pacheedaht culture, history, TEK, cumulative effects and other topics. A copy of the PFN TMUOS is appended to the current report for reference.

A significant problem with the PMV Report is that it presents a number of tables that purportedly contain information about PFN harvesting locations in or near the RBT2 MSA. The PMV Report reproduces information in its Analysis Tables (Tables 1 - 6) for harvesting of various types of resources, and "Sites of Importance" based on incomplete information. The Tables omit important information about Pacheedaht TUOS sites. The PMV Report tables have reproduced information from tables in the TERA Report that is inaccurate and incomplete, illustrated by examples presented below.

Maps submitted with the PFN TMUOS Report were marked Confidential. On this basis, the tables in the TERA Report, and in the PMV Report, omit important site information by describing site locations as "Confidential" and, in turn, marking "N/A" in the following columns: Relative to Shipping Lanes; Relative to Marine RSA; Shipping Lanes Crossed to Access Activity/Site. The PMV Report follows the TERA Report, as its tables, in the Summary of Existing Conditions, list many site locations as "Confidential" and supporting details as "N/A." Listing sites as "N/A" creates an

[51] TERA. "Supplemental Traditional Marine Resource Use - Marine Transportation Technical Report for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project." Calgary: CH2M Energy Canada, Ltd., 2014.

inaccurate impression that there is no information about these sites or that they are not to be considered. In fact, the locations, numbers and other details about PFN TUOS sites listed in the report tables' details was derived from information that was presented in the "Species and Use" tables in the PFN TMUOS report. The Species and Use tables are described in the PFN TMUOS as "summary information for Pacheedaht knowledge and use of the resources and species harvested at the traditional use and occupancy sites for the Study." These tables present information on Pacheedaht Traditional Ecological Knowledge (TEK), and list some locations as examples. The TEK tables in the PFN TMUOS report are not comprehensive lists of site locations and were never intended to be relied on for complete information on PFN TUOS sites. Detailed analysis of PFN TUOS site information is presented elsewhere in the PFN TMUOS report.

Brief references to some of the inaccuracies presented in the PMV Report, based on errors in the TERA Report, are presented here as examples:

- Table 1 in the PMV Report lists 14 locations for Pacheedaht harvest of marine invertebrates. The PFN TMUOS references 101 locations for "seafood harvesting" in the TMUOS Study Area;
- PMV Report Table 2 lists 12 Pacheedaht fishing locations. The PFN TMUOS references 214 fishing sites in the TMUOS Study Area;
- The PMV Report Table 6 lists 19 Pacheedaht "Sites of Importance," all village sites. The PFN TMUOS references 89 Dwelling sites in the TMUOS Study Area.
- The "Sites of Importance" in the PMV Report Table 6 does not include the 22 "Sacred/Ceremonial" sites referenced in the PFN TMUOS;
- The PMV Report Table 3 lists 6 Marine Mammal Harvesting Locations; the PFN TUOS contains information for 30 marine mammal harvesting sites;
- The PMV Report states: "PFN reportedly still harvest chum in rivers and the ocean (NEB 2015a), but specific locations were not identified." There are 38 sites in the PFN TUOS that contain information about chum harvesting;
- The PMV Report states: "Basketry grass harvesting locations were not identified in sources reviewed." There are 32 basketry grass harvesting locations identified in the PFN TUOS data;
- The PMV Report refers to PFN fishing sites as follows: "Some of these locations have been described by Pacheedaht First Nation as damaged from logging or fished out." The PMV report cites the PFN TMUOS as the source for this statement. There is only one passage in the PFN TMUOS report that could be interpreted as "fished out:" "The coastal cutthroat trout was also fished out at Walbran Creek." The original meaning is that trout were fished, out at Walbran Creek, and not that the trout in the river had been "fished out," or completely depleted.

Further, since the time that both the PFN TMUOS and the TERA Report were produced in 2014, Pacheedaht have conducted additional research, adding to the information on traditional use and current use sites described in the TMUOS report. More up-to-date

PFN TUOS information is now available for consideration and analysis in the current report.

In summary, the information about Pacheedaht First Nation traditional and contemporary harvesting, use, cultural or other sites presented in the PMV Report is inaccurate and incomplete, and should not be relied for the preparation of the PMV EIS, nor for any other purpose.

Appendix B: Pacheedaht First Nation Traditional Marine Use and Occupancy Study (TMUOS) 2014 Final Report

Pacheedaht First Nation Traditional Marine Use and Occupancy Study (TMUOS) 2014
Final Report

Jeff Jones and Mya L'Hirondelle pose with a rare large specimen of halibut, caught at ?'uöu:?a: Swiftsure Bank, 2013.

Prepared for

in relation to
Kinder Morgan Canada, Trans Mountain Expansion Project
Prepared by
Pacheedaht Heritage Project, Pacheedaht First Nation Treaty Department
and
Traditions Consulting Services, Inc.
June 7, 2014

This report is dedicated to the memory of our dear colleague

Madelen Jones

We miss you

Pacheedaht First Nation Traditional Marine Use and Occupancy Study (TMUOS)
2014 – Final Report

Credits

People Interviewed for Pacheedaht Traditional Use and Occupancy Studies

1997 – 1999 Traditional Use Study of Pacheedaht Territory

Nora Baker
Leona Canute
Flora Charles
Carlson Charlie
Helen Dunn
Carl Edgar Sr.
George Gibbs
Charlene Jack
Percy Jack
Roy "Butch" Jack
Pearl James
Susan Johnson
Alanna Jones
Andrea Jones
Ardis Jones
Arlena Jones
Arnold Jones
Bill Jones
Brenda Jones
Charles Jones Jr.
Charles Jones Sr.
Dan Jones
Dave Jones
Ida Jones
Jeff Jones
John Paul Jones
Karen "Sammy" Jones
Ken Jones
Lawrence Jones
Marvin Jones
Mary Jones
Mary Clara Jones
Robert (Bob) Jones
Roberta Jones
Shirley Jones
Tim Jones
Tom Jones
Stacey Jones
Wayne Jones
Wesley Jones
Edith Joseph
Stella Matkin
Marvin McClurg
Harry Peters
Hazel Peters
Marg Peters
Sally Peters
Jenny Thomas
John Thomas
Dr. Nancy Turner
Margaret Williams

2013 - 2014 Pacheedaht Heritage Project and Traditional Marine Use and Occupancy Study

Carlson Charlie Sr.
Adelaine Jack
Candice Jack
William Jones
Darrell Jones
Frank Jones
Helen Jones
A. Jeffery Jones
Marvin Jones
Mercena Jones
Pamela Jones
Tim Jones
Walter "Russell" Jones
Daniel McClurg
Marvin McClurg
Gary Pearson
Curtis Scowaisa
Nora Simpson

Pacheedaht Heritage Project, Pacheedaht First Nation Treaty Department

Madelen Jones	Researcher, Writer, Database Entry, Interviews, Photographs
Pamela Jones	Researcher, Database Entry, Interviews, Mapping, Transcription
Kristine Pearson	Researcher, Writer, Database Entry, Interviews, Report Production

Consultants

Kevin Neary	Traditions Consulting Services, Inc. - Project Director, Interviews, Database, Mapping, Videos, Report Writing, Report Production
Cairn Crockford	Traditions Consulting Services, Inc. – Archival Research
Pamela Williams	Traditions Consulting Services, Inc. – GIS, Database Entry
Simon Norris	Hillcrest Geographics – GIS
Jason Howes	Monterey Environmental Services – Oil Spill Response

Acknowledgements

The TMUOS team members would like to thank Pacheedaht First Nation Chief and Council, and the Treaty Department, for the opportunity to work on this project. We would also like to thank the Pacheedaht members and others interviewed for sharing their knowledge and lifetime experiences; these provide the core of the project results. We also offer our appreciation for the assistance provided by members of Pacheedaht First Nation staff who helped out in many ways; in particular we wish to thank the Fisheries Department for sharing information with the TMUOS team.

Note to Reader

This Final Report has been prepared as a deliverable of the Pacheedaht First Nation's Traditional Marine Use and Occupancy Study with respect to Kinder Morgan Canada's Trans Mountain Pipeline Expansion Project, and for the purpose of a regulatory application for approval of that project and for submission to the National Energy Board. Additional research and interviewing will undoubtedly add to the information presented in the report.

No attempt has been made to standardize the transcription or rendering in English of Pacheedaht names and words; they appear in the report as presented in source materials and as phonetically rendered in interview notes and transcriptions. The term "seafood" is used in this report to refer to intertidal (and some subtidal) gathering as this term is commonly used by Pacheedaht community members.

This report does not explicitly address all matters of aboriginal title or aboriginal rights of the Pacheedaht First Nation for the Study Area, although the Traditional Use and Occupancy Site and other information included provides evidence related to their aboriginal title and aboriginal rights.

Executive Summary

The general purpose of the PFN Traditional Marine Use and Occupancy Study is to research, record, map and describe locations, resources and activities of traditional importance to the Pacheedaht First Nation that could be affected by increased marine tanker traffic, or by an oil spill and its associated clean up operations, resulting from the proposed Trans Mountain Expansion Project (TMEP). This final report presents, in summary format, currently available information for PFN's traditional marine use and occupancy sites in the Study Area, as well as information about potential impacts of the proposed project on Pacheedaht's territory and interests. The report should not be viewed as comprehensive or definitive as additional research, interviewing and groundtruthing would undoubtedly uncover additional information.

Pacheedaht Territory is located on the southwest coast of Vancouver Island, generally bounded on the east at Sheringham Pt., and on the west at Bonilla Point; and extending inland to include the drainages of the rivers and streams on Vancouver Island between those two locations, and directly offshore from those two locations to the international border with the United States. The Pacheedaht also have aboriginal fishing and harvesting rights at *?'uöu:?a:* **(**Swiftsure Bank).

The Pacheedaht regard themselves as a distinct First Nation whose history in their territory extends back over many centuries. A summary history of Pacheedaht is presented in the report, as well as information about the locations of Pacheedaht villages and campsites. Historical records dating from the Contact and Colonial Periods record that Pacheedaht people have occupied their territory continuously, that their livelihood and economy was based primarily on marine resources, and that they traded in marine resources with other First Nation and with white explorers and traders.

At the confederation of British Columbia with Canada in 1871, responsibility for Indian Affairs, and for Marine and Fisheries resources, were assumed by the federal government, while the jurisdiction for other responsibilities were assumed by the provincial government. Early Indian Affairs reports describe the Pacheedaht as "toilers of the sea" who obtained their wealth from the ocean, and who had strict customs regarding territory and property. The federal and provincial governments established an Indian Reserve Commission that between 1882 and 1894 set aside four Indian Reserves for the Pacheedaht. The Reserve Commissioners were instructed to deal justly and reasonably with the Indians in the settlement of their Reserves, and that they should be secured in the possession of the villages, fishing stations, burial places and other settlements, and that fishing stations, fishing streams, and fishing grounds should be kept for the exclusive use of the Indians. The Indian Reserve Commissioner reserved for the Pacheedaht the right to fish in both lower branches of the San Juan River.

In the late 1800s and early 1900s, the Pacheedaht gained substantial livelihoods through fishing and hunting for marine resources that included fishing, hunting and gathering of salmon, halibut, seafood (intertidal gathering), dogfish, sea otters, whales and fur seals.

When the Royal Commission on Indian Affairs for the Province of BC visited Port Renfrew in 1914, Pacheedaht members complained about the size and number of their Reserves, and requested more lands, without success.

During traditional times, the Pacheedaht engaged in a seasonal round. During the spring they moved from inside villages to outside fishing camps to catch fish and hunt sea mammals. People would get sockeye from the San Juan and Gordon Rivers between late April and July, otherwise they remained in the outside resource camps until September when they would return to the inside rivers for the fall salmon runs: steelhead, coho, spring, pink and dog salmon which were processed for later consumption, green sturgeon were also obtained. Land and sea mammal hunting, and gathering of plants, berries and other resources occurred when resources were seasonally available, abundant or best to obtain. Seasonal movements were primarily motivated by the availability of marine resources and seafood.

Throughout the vast majority of their long history, Pacheedaht ancestors enjoyed unrestricted access to the wide variety of resources in the ocean, rivers and lands in their territory. They gained a wealth of knowledge about their territory based on direct personal observations and experiences. This wealth of information is today often referred to as Traditional Ecological Knowledge (TEK) and is generally considered distinct from "scientific knowledge." Tables of TEK information about resources located in, along or near the marine environment in Pacheedaht territory are presented in the report.

Since Contact, many developments and historic events have occurred to the Pacheedaht and within their territory that have had significant impacts on their traditional rights, as well as on the land and marine portions of their territory. The potential effects of the proposed project should be evaluated considering the context of previous developments and events. The cumulative effects include, but are not restricted to, topics described in the report, including:

- disease and depopulation after Contact;
- establishment of Indian Reserves and the corollary alienation of Pacheedaht lands and resources;
- loss of language, culture and traditions through Indian Residential Schools, anti-potlatch laws, and the efforts of missionaries and Indian Agents;
- industrial logging and associated environmental impacts;
- non-native settlement activities;
- hydroelectric and mining activities;
- acquisition of lands and marine areas for the establishment of federal, provincial and regional parks; and

- depletion of fisheries and other marine resources, and the imposition of fishing and marine harvesting regulations including loss of economic rights for harvesting of marine resources.

Any further reduction, of any magnitude, in Pacheedaht members' access to fisheries and intertidal resources, or further degradation of these resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights. Similarly, any further damage to or degradation of Pacheedaht cultural, archaeological, or other resource harvesting sites, or access to these sites, will also comprise significant losses.

The proposed TMEP project's tanker traffic, and the effects of an oil spill and associated cleanup operation, have the potential to impact Pacheedaht members' current and future harvesting and other rights in many ways. Some topics related to the potential impacts of the proposed project, as derived from available information about the TMEP, and as expressed by Pacheedaht members, are presented in the report including:

- information gaps in the TMEP application;
- marine pollution;
- ballast water;
- tanker acoustic and visual disturbance;
- tanker wakes and marine safety;
- risk of leaks or spills of diluted bitumen;
- status of WCMRC preparedness with respect to Pacheedaht territory;
- Transport Canada standards and changes in the shipping lanes in the Strait of Juan de Fuca; and
- recommendations for oil spill response planning;

Pacheedaht community members, staff, and representatives held several meetings concerning the TMEP, some involving representation from the TMEP Aboriginal Engagement Team, Transport Canada and WCMRC. A summary listing of some questions and comments that arose at those meetings are presented in the body of the report.

The report concludes with a presentation of information about the methodology and results of the project's research concerning Pacheedaht traditional marine use and occupancy sites located within the project Study Area. All traditional use and occupancy Sites have been classified, at the most general level, according to six "Categories," listed

below, that facilitate the presentation of information on the Project Maps provided in Appendix A of the report.

Map 1: All Sites
Map 2: Aquatic Resources Sites
Map 3: Culture History Sites
Map 4: Land Resources Sites
Map 5: Settlement Activity Sites
Map 6: Archaeology Sites
Map 7: Travel Sites
Map 8: Seafood (Intertidal Gathering) Sites.

There are currently 689 traditional use and occupancy sites documented in the Pacheedaht First Nation traditional use and occupancy site database, of which 500, comprising 73% of the total, are intersected by the Project Study Area. Analysis of the sites located in the Study Area according to site Categories and Activities is presented in the report. The locations of the 500 traditional use and occupancy sites recorded to date in the Study Area are shown on the Project Maps in Appendix A.

Table of Contents

Introduction 1
Report Purpose 1
Project Study Area 2
Proposed Trans Mountain Expansion Project and Tanker Traffic Summary 2
Pacheedaht Culture and History Overview 4
PACHEEDAHT TRADITIONAL HISTORIES 9
PreFlood Era – John Thomas *9*
The Great Flood *9*
How the Dititdahts Came to Dititdaht *11*
The Pacheedaht arrive at Port San Juan *12*
THE PACHEEDAHT IN HISTORICAL RECORDS 12
POST CONFEDERATION RECORDS 14
Reports, 1871 - 1881 ..... *14*
Establishment of Pacheedaht Reserves *15*
Department of Indian Affairs Annual Reports *20*
Pacheedaht Use of Aquatic Resources 23
MARINE RESOURCES AND THE PACHEEDAHT ECONOMY 24
SPECIES AND USE 31
Cumulative Effects 51
CONTACT, DISEASE AND DEPOPULATION 51
INDIAN RESERVE ESTABLISHMENT 52
LOSS OF CULTURE AND LANGUAGE 53
Residential Schools and Missionaries *53*
Anti-Potlatch Law *54*
INDUSTRIAL LOGGING 56
HYDROELECTRIC AND MINING ACTIVITIES 58
PARK ACQUISITION 59
Federal Parks *60*
Provincial Parks *60*
Regional Parks *61*
AQUATIC RESOURCE HARVESTING 63
Pacheedaht and Aquatic Resources Summary *68*
CUMULATIVE EFFECTS SUMMARY 68
Potential Impacts 69
AVAILABLE INFORMATION FOR TMEP 70
INFORMATION GAPS IN TMEP APPLICATION 70
MARINE POLLUTION 71
BALLAST WATER 71
ACOUSTIC DISTURBANCE 72
TANKER WAKES AND MARINE SAFETY 72
RISK OF LEAKS OR SPILLS OF DILUTED BITUMEN 73
WCMRC 74
TRANSPORT CANADA 75
RECOMMENDATIONS FOR OIL SPILL RESPONSE PLANNING 76
Pacheedaht TMEP Meetings and Expressed Concerns 77
AUGUST 13, 2013 MEETING 78
JANUARY 29, 2014 MEETING 78

FEBRUARY 5, 2014 MEETING 78
APRIL 17, 2014 MEETING 78
MAY 20, 2014 MEETING 79
SUMMARY OF QUESTIONS AND COMMENTS 79
Traditional Marine Use and Occupation Sites 91
TRADITIONAL MARINE USE AND OCCUPANCY SITE RESEARCH METHODOLOGY 91
Information Sources *91*
PROTOCOLS AND PROJECT ESTABLISHMENT 91
Traditional Use and Occupancy Site Research Methodology 92
TRADITIONAL USE AND OCCUPANCY SITE DEFINITION 93
INFORMATION SOURCES FOR PACHEEDAHT TRADITIONAL USE AND OCCUPANCY SITE 94
Previous Projects *94*
Archival and Published Sources *95*
INTERVIEWS 95
Pacheedaht First Nation Traditional Use Study 1997-1999 Interviewees *95*
Interviewees, 2013 – 2014 ..... *102*
Interview Methodology, 2013-2014 ..... *106*
TMUOS DOCUMENT AND RECORDS MANAGEMENT 109
Pacheedaht Heritage Project Document Collection *109*
Digital Recording of Interviews and Groundtruthing Trips *110*
Interview Notes *110*
Interview Transcripts *110*
Interview Maps *110*
Traditional Use and Occupancy Site Database *110*
Project GIS, Mapping Protocols and Maps *112*
TRADITIONAL MARINE USE AND OCCUPANCY SITE CLASSIFICATION 112
Activity *112*
Site Entity *114*
Site Categories *114*
TRADITIONAL USE AND OCCUPANCY SITE ANALYSIS 114
Culture History Category Sites *117*
Land Resources Category Sites *119*
Settlement Activity Category Sites *119*
Archaeology Category Sites *120*
Travel Category Sites *120*
Report Summary 121
Photographs 125
References Cited 137
Appendix A: Pacheedaht Traditional Marine Use and Occupancy Sites Maps 143

List of Figures

Figure 1: Pacheedaht Territory, ?'uöu:?a: (Swiftsure Bank) and Vessel Traffic Routes. 3
Figure 2: Pacheedaht Traditional Territory with Villages and Campsites. 8
Figure 3: Pacheedaht territory showing fisheries closures, parks, shipping lanes and ?'uöu:?a: Swiftsure Bank closure area. 62
Figure 4: Pacheedaht Fisheries Intertribal Protocol Flag 67
Figure 5: Photo of IR No. 1, Pacheena at the San Juan River ca. 1905 showing the traditional Pacheedaht village in the background. University of Minnesota Archives photo.....125
Figure 6: Photo of traditional Pacheedaht longhouse, with exterior wallplanks removed, at IR No. 1, Pacheena at the San Juan River ca. 1905. University of Minnesota Archives photo. 125
Figure 7: Photo taken near Botanical Beach of Pacheedaht man in canoe selling salmon to visiting researcher at Seaside Station near Botanical Beach. University of Minnesota Archives photo..126
Figure 8: Photo of traditional Pacheedaht burial boxes in spruce tree, perhaps victims of smallpox or other epidemic, ca. 1905. University of Minnesota Archives photo. 126
Figure 9: Photo of IR No. 1, Pacheena at the San Juan River taken during 1914 during the visit of the Royal Commission of Indian Affairs for the Province of B.C. BC Archives photo. 127
Figure 10: Photo of Chief Charles Jones and family on his commercial fish boat Queesto, ca 1945. l. to r. Charles Jones Jr., Stanley Jones, family friend, Gerald Jones, Hilda Jones, Stella Jones, Kenneth Jones, Charles Jones. 127
Figure 11: Brent Charlie, Trent Jones, Jeff Jones, and Carlson Charlie III on a youth crabbing trip in Port San Juan Bay, August 2013. Photo Helen Jones. 128
Figure 12: At dawn Pacheedaht community members harvesting the coho salmon run in the San Juan River, September 2013. 129
Figure 13: The nets are hauled by Pacheedaht members as part of the FSC fishery, September 2013. 129
Figure 14: Healthy catch, happy community, September 2013.....129
Figure 15: Roosevelt elk grazing in the intertidal estuary of the Gordon River at IR No. 2. Photo Helen Jones. 130
Figure 16: Sea lion rock located near IR No. 3 at Qala:yit; one of several sea lion rookeries that dot the coast in isolated areas, September 2013. 130
Figure 17: Pacheedaht FSC fishery at Swiftsure Bank; mature, highly prized Lingcod, August 2012. 131
Figure 18: Ann Jones holding her halibut catch out at Swiftsure Bank, August 2012. 131
Figure 19: Offshore bounty of halibut, rockfish and red snapper, August 2012. 131
Figure 20: Reeling in a big catch from the FSC restricted area on Swiftsure Bank, August 2012. 131
Figure 21: Purple sea urchins, or sea eggs, thriving in the west coast tide pools, September 2013. 132
Figure 22: Seafood harvested from Cerantes Rock of gooseneck barnacles, chitons, urchins, and crab, April 2013. 132
Figure 23: Pacheedaht youth admiring their traditional resource, September 2013.....133
Figure 24: Coho salmon fished for the Pacheedaht food, social, and ceremonial fishery from the San Juan River, IR No. 1, September 2013. 133
Figure 25: Ann Jones holding healthy Coho salmon, September 2013.....133
Figure 26: Coho salmon fished by community members with a gill net, September 2013.....133
Figure 27: Community members selecting the fish for processing, September 2013. 133
Figure 28: An example of intertidal diversity, including Porphya sp., surf grass, sea lettuce, and barnacles, September 2013. 134

List of Tables

Table 1: Aquatic Birds....33
Table 2: Coastal Mammals....34
Table 3: Shellfish....36
Table 4: Subtidal Species....39
Table 5: Sea Mammals....41
Table 6: Coastal Plants and Trees....43
Table 7: Seaweeds, Intertidal and Subtidal Plants....45
Table 8: Fish....47
Table 9: TMUOS Database Fields....111
Table 10: Activity Definitions....112
Table 11: Analysis of Traditional Use and Occupancy Sites in the Study Area by "Category"....115
Table 12: Analysis of Traditional Use and Occupancy Sites in the Study Area by "Activity"....116
Table 13: Analysis of "Aquatic Resources" Category sites in the RSA by related "Activity"....117
Table 14: Analysis of "Culture History" Category sites in the Study Area by related "Activity"....118
Table 15: Analysis of "Land Resources" Category sites in the Study Area by related "Activity"....119
Table 16: Analysis of "Settlement Activity" Category sites in the Study Area by related "Activity"....120

Introduction

This report is a project deliverable as laid out in a Letter of Understanding (LOU) between the Pacheedaht First Nation (PFN) and Kinder Morgan Canada (KMC), executed on November 12, 2013. This document is the Final Report for the Traditional Marine Use and Occupancy Study for the Pacheedaht First Nation with respect to Kinder Morgan's proposed Trans Mountain Pipeline Expansion Project (TMEP).

Pacheedaht Territory is located on the southwest coast of Vancouver Island, generally bounded on the east at Sheringham Pt. and on the west at Bonilla Pt.; and extending inland to include the drainages of the rivers and streams on Vancouver Island between those two locations, and directly offshore to the international border with the United States; Pacheedaht also have aboriginal fishing and harvesting rights at *?'uöu:?a:* (Swiftsure Bank). The extent of PFN Territory and the location of the proposed Vessel Traffic Routes for tankers for the TMEP, are illustrated on Figure 1.

The Pacheedaht have occupied their territory since time immemorial, as described in more detail later in this report.

Report Purpose

The general purposes of the PFN Traditional Marine Use and Occupancy Study is to research, record, map and describe locations, resources and activities of traditional importance to the Pacheedaht First Nation that could be affected by increased marine tanker traffic, or by an oil spill and its associated clean up operations, resulting from the proposed TMEP. This final report presents, in summary format, currently available information for PFN's traditional marine use and occupancy sites in the Study Area. The report should not be viewed as comprehensive as additional research, interviewing and groundtruthing would undoubtedly uncover additional information. This report represents information that was gathered within a relatively short timeframe.

The Pacheedaht TMUOS project's purposes are to:

- Provide summary information concerning Pacheedaht history, culture and traditional use and occupancy in Pacheedaht territory;
- Identify how marine resources in the Study Area were used in the past and currently by Pacheedaht members;
- Outline the spatial extent of Pacheedaht traditional use and occupancy sites; and
- Summarize information provided by Pacheedaht members concerning impacts of the proposed project.

Project Study Area

The Project Study Area is defined as the marine portion of Pacheedaht First Nation territory, as illustrated in Figure 1, and includes those PFN traditional use and occupancy sites located within 150 meters of a marine shoreline, or within 50 meters of a riverbank with tidal influence. This area was chosen as it is along the proposed project's tanker routes. The marine shoreline in Pacheedaht Territory extends 129 km.

The Pacheedaht traditional use and occupancy sites located offshore, and those within 150 m. of marine shorelines or within 50 m. of a tidal influenced river bank, are those that could be impacted by the tanker traffic, or in the event of an oil spill or associated cleanup operations, and are illustrated on the Maps presented in Appendix A. The Project Study Area includes the general area of *?'uöu:?a:* **(**Swiftsure Bank)[1], an offshore fishing and harvesting area of historical significance to the Pacheedaht, and where the Pacheedaht share aboriginal rights and interests with the Ditidaht First Nation and the Makah Nation.

Proposed Trans Mountain Expansion Project and Tanker Traffic Summary

Kinder Morgan Canada Inc. is proposing to expand the capacity of the existing Trans Mountain Pipeline system. If approved, the proposed project would be undertaken in numerous phases and consist of approximately 980 km of new pipeline, 11 new pump stations and expansion of existing stations, additional storage capacity at existing storage terminals, expansion of the Westridge Marine Terminal and associated infrastructure, resulting in a dual-line operation.

The proposed development, if approved, would also result in an increase of outgoing marine tanker traffic from approximately 5 tankers per month, laden with diluted bitumen and other oil products, to an estimated 35 tankers per month, with a similar amount of return traffic. The proposed Trans Mountain Pipeline Expansion Vessel Traffic Routes (Shipping Lanes) (Figure 1) depart from the Westridge Marine Terminal in Burnaby out through Burrard Inlet to the Strait of Georgia, then south to East Point on Saturna Island, then southwest and south through Boundary Pass and Haro Strait to Discovery Island, then south and west out Juan de Fuca Strait to the Pacific Ocean.

The proposed tanker traffic route passes offshore along the entirety of the 129 marine shorelines within Pacheedaht territory, intersects a significant portion of the marine portion of Pacheedaht territory, and also intersects a significant portion of *?'uöu:?a:* **(**Swiftsure Bank) which has been extensively used by Pacheedaht members for harvesting fish and marine mammals since time immemorial (Figure 1).

[1] Swiftsure Bank has also been called Pacheedaht Bank.

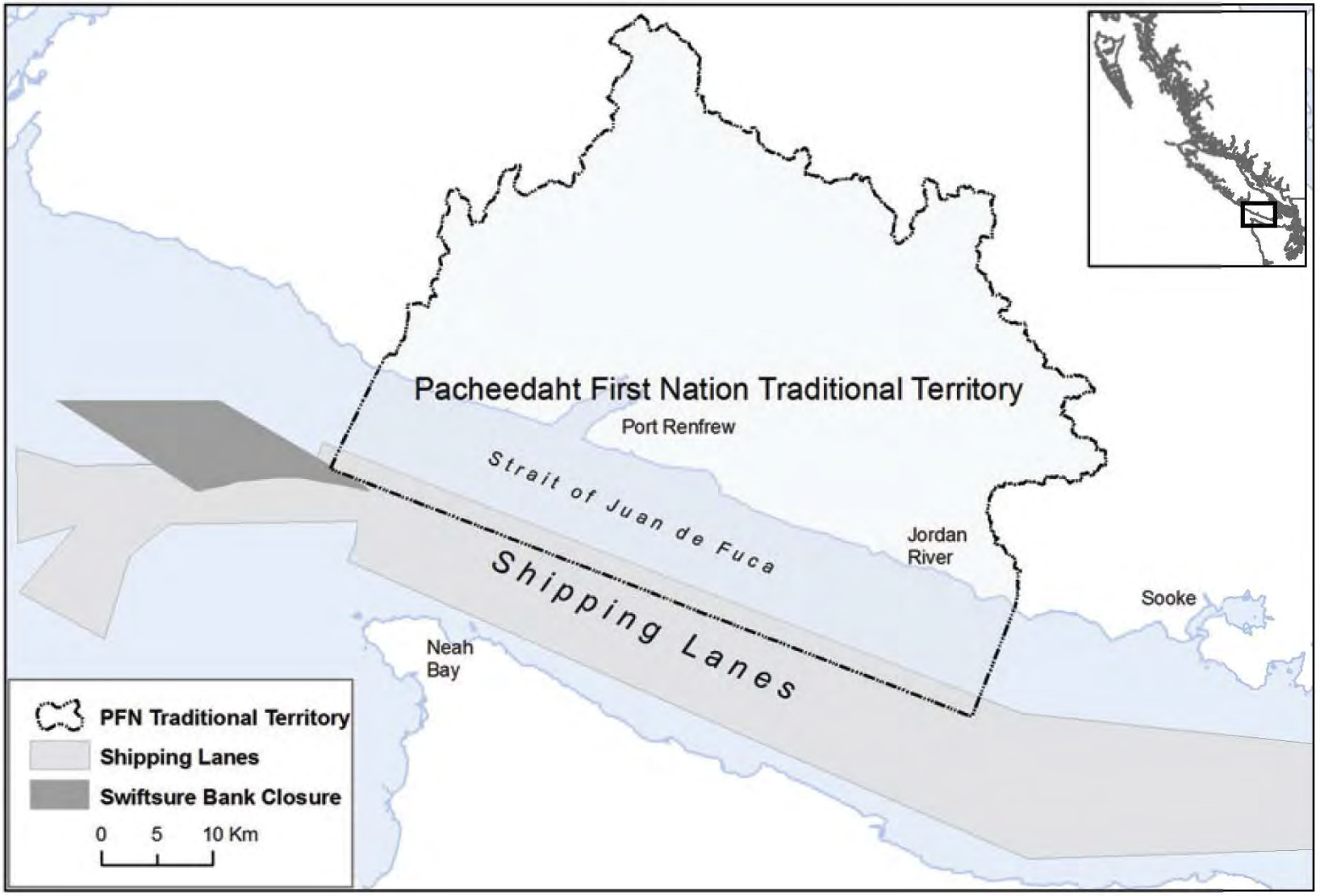

Figure 1: Pacheedaht Traditional Territory, shipping lands and Swiftsure Bank Closure.

Pacheedaht Culture and History Overview

The name "Pacheedaht" translates into English as "Children of the Sea Foam" (or "People of the Sea Foam") and refers to a traditional history related later.

Pacheedaht territory includes the lands and waters along the southwest coast of Vancouver Island between Bonilla Point at its western end, and Sheringham Point on the east (Figure 2).[2] The eastern boundary corresponds with information published by Wayne Suttles, an expert on Salish history and culture, who identifies Sheringham Point as the western boundary of the region where Northern Straits Salish was spoken by members of the T'Souke Nation.[3] The Pacheedaht's western boundary is the same as the eastern boundary of the Ditidaht First Nation. Pacheedaht share aboriginal fishing and harvesting rights at *?'uöu:?a:* **(**Swiftsure Bank) with Ditidaht First Nation and Makah Nation.

The Pacheedaht regard themselves as a distinct First Nation with a history in their territory that extends back over centuries. Anthropologists, on the other hand, refer to the Pacheedaht, and the neighbouring Ditidaht as, related by language and culture to the Nuu-chah-nulth First Nations whose territories are distributed along the west coast of Vancouver Island.[4] Pacheedaht people are related by kinship, language and culture to several other First Nations on Vancouver Island, but their closest relations are with the Ditidaht to the northwest, and with the Makah across the Strait of Juan de Fuca in Washington.

Linguists describe Nitinaht as a distinct language spoken by Pacheedaht and Ditidaht people; it is related to the language spoken by members of the Nuu-chah-nulth First Nations further to the north and west along Vancouver Island's coast.[5] Ditidaht native linguist John Thomas, who lived with the Pacheedaht at Port Renfrew, described the language spoken by the Pacheedaht and Ditidaht.

> Nitinaht is an Indian language of Western Canada spoken along the southwestern littoral of Vancouver Island from Pachena Point to Jordan River. It is related to several other coastal languages, which together comprise the Wakashan Language Family. Both in geographical distribution and degree of diversification from the

[2] Charles Jones Sr. and Eugene Arima. Annotated Map of Juan De Fuca Strait Depicting Pacheedaht Place Names." Unpublished manuscript. Pacheedaht First Nation. Port Renfrew, BC, 1973-1974.
Richard Inglis and James C. Haggarty. "Pacific Rim National Park Ethnographic History." Parks Canada Report Series No. 257. Calgary: Manuscript on file with Parks Canada, Western Region, 1986. p. 209.
Randy Bouchard, "Preliminary Notes on the Pacheenaht Indian Knowledge and Use of the Area between Jordan River and San Juan Point." Report prepared for I.R. Wilson Consultants Ltd. and BC Parks. Victoria, 1994. p. 33.
[3] Wayne Suttles. "Central Coast Salish." In: *Handbook of North American Indians, Volume 7, Northwest Coast*. Edited by Wayne Suttles, 453-75. Washington, D.C.: Smithsonian Institution, 1990. p. 456.
[4] Eugene Arima and John Dewhirst. "Nootkans of Vancouver Island." In: *Handbook of North American Indians, Volume 7, Northwest Coast.* Edited by Wayne Suttles, 391- 411. Washington, D.C.: Smithsonian Institution, 1990. pp. 391, 393.
[5] Arima and Dewhirst, *Nootkans of Vancouver Island*, 1990. pp. 391, 393.

> original, ancient Wakashan tongue, the family divides into two groups. A southern branch consists of Makah, spoken on Cape Flattery across the Straits of Juan de Fuca from the Nitinaht territory; Nitinaht itself; and Nootka, spoken on the west side of Vancouver Island from Pachena Point to Cape Cook. This branch is known as the Nootkan Division of the Wakashan Family.[6]

Pacheedaht Chief Queesto Charlie Jones, who was born ca. 1876 and lived to be over 100 years old, estimated that the Pacheedaht numbered 1,500 people or more before diseases, brought by white explorers, traders and settlers, were introduced into Pacheedaht territory.[7] Pacheedaht ancestors' traditional seasonal round included taking up residence at several locations through the course of an average year in order to take advantage of locally or seasonally abundant resources. Some Pacheedaht people occupied several of the villages throughout the year, as described later. Pacheedaht villages and camps were spread throughout their territory, especially along the coastline and on the banks and mouths of larger rivers. Four to six families, each with their own fireplace, would occupy a typical Pacheedaht bighouse.[8]

Following are the names and locations of known Pacheedaht villages with bighouses, and campsites in Pacheedaht territory, listed in a generally east to west direction (Figure 2).[9]

- *ʔiʔiːbicʼaqpiʔs* –ian ancestral village of the Pacheedaht, located on the eastern side of the mouth of Jordan River.
- *Diitiida* – a large village at the mouth of Jordan River where there may have been as many as twelve bighouses. The original village of *Diitiida* was located on the west side of Jordan River.
- *Tɬʼehib* – a village between Magdalena and Simon Points at Boulder Beach with room for six to eight bighouses and canoe runs in front.
- *Qwaːqtɬis* – a fishing and seafood gathering village located near the mouth of Sombrio River.
- *ɬiːxwaːp* – a winter village of six small houses on top of a bluff at Botanical Beach; this was also a defensive site; the sides of the site were dug off to be steep, only the back was accessible from land.

---

[6] John Thomas, and Thom Hess. "An Introduction to Nitinaht Language and Culture." Victoria, BC: Unpublished Manuscript. Dept. of Linguistics, University of Victoria, 1981.
[7] Charles Jones and Stephen Bosustow. *Queesto, Pacheenaht Chief by Birthright*. Nanaimo, B.C.: Theytus Books. 1991. p. 21.
[8] Eugene Arima, Denis St. Claire, Louis Clamhouse, Joshua Edgar, Charles Jones, and John Thomas. "From Barkley Sound Southeast." In: *Between Ports Alberni and Renfrew: Notes on West Coast Peoples. Canadian Ethnology Service, Mercury Series Paper*, 203-411. Hull, Quebec: Canadian Museum of Civilization, 1991. p. 280.
Arima, Eugene. "Notes on the Southern West Coast (Nootka) Natives: Environment and Exploitative Techniques of the P'achi:da7ath of Port San Juan." Unpublished manuscript. National Historic Parks and Sites Branch, Parks Canada. Ottawa; Copy held at Archaeology Division, Royal British Columbia Museum, Victoria, 1976. pp. 27-40.
[9] Arima et al., *Barkley Sound Southeast*, 1991 p. 278-280.

- *ʔapsawaʔ* – a winter village of eight houses behind Cerantes Rock at the south side of the entrance to Port San Juan. A narrow channel led to this village location, and it was hard to get in and out with canoes. Skids were built down to the water for hauling canoes up sideways onto the bank. This site was occupied when all the other good village sites in Port San Juan were filled up.

- *K'oʔobaʔ* – a village of twelve to fifteen houses at Robertson Cove.

- *Bo:ʔapiʔis* – a winter village with about a dozen houses located at the current site of Port Renfrew.

- *K'witibi?t* – a large permanent village that included twenty houses; it was spread out along the shore of Port San Juan from the cove at the mouth of the San Juan River nearly a mile to Snuggery Cove, including the present Beach Camp area. The location is a natural living site that features a well-sheltered beach and is accessible by canoe in all weather and at all tides. There is a knoll for defensive purposes, also a lookout point up the bay, and, in the past there was an abundance of seafood available along this shoreline.

- *P'a:chi:da?* – this was the main Pacheedaht village and it was spread out along the beach that extends between the mouths of the north and south branches of the San Juan River. Pacheedaht Indian Reserves #1 and #2 are located at this site.

- *Tɬ'i:xsit* – a large village located at the mouth of a creek on the south channel, 2.5 km up the San Juan River, that was occupied during the summer months for harvesting and drying of salmon.

- *Tłołasiʔ* – the "flat" at Fairy Lake was a summer fish camp where salmon were dried.

- *ʔaʔaqwaxtas* – a village on the north side of the mouth of Fairy Lake on the north side of the San Juan River.

- *Kwi:sidok'waʔ* – a fishing camp located at the mouth of Harris Creek on the San Juan River.

- *Tɬ'oqwxwat'* – a summer fishing village on the Gordon River where salmon traps were set in the river from April to October.

- *ʔo:yats'* – a year round village with eight houses at Thrasher's Cove on the northwest side of Port San Juan.

- *K'adataʔs* – a small winter trapping camp, with three houses a half mile from Owen Point on the northwest side of Port San Juan.

- *Qawö adt* – there was a small village at *Qawö adt* (Camper Bay) with three or four houses, but its Pacheedaht name has not been recorded.

- *Qala:yit* – a large permanent village east of Bonilla Point that was occupied year round. This village, located on what is now Cullite Indian Reserve #3, provided excellent access to *?'uöu:?a:* **(**Swiftsure Bank) and other prime fishing grounds, sea

mammal hunting grounds, and seafood gathering sites. The people living here did not need to eat much dried fish during winter as fresh halibut, cod and red snapper were available nearby.

These villages were important to the Pacheedaht for the harvesting of resources and are part of their cultural identity. These locations continue today to be of great importance to the exercise of Pacheedaht rights and culture. Pacheedaht ancestors selected their village sites based on a variety of factors such as availability of critical resources, suitability for launching and landing canoes, exposure to wind and waves, defensive features, and sightlines. In particular, the Pacheedaht selected these village locations to take advantage of the abundance of resources in the local and regional areas, and at other locations throughout their territory. All Pacheedaht villages are located on or near a marine, river or lake shoreline, reflecting Pacheedaht's traditional marine orientation and reliance on aquatic and marine resources.

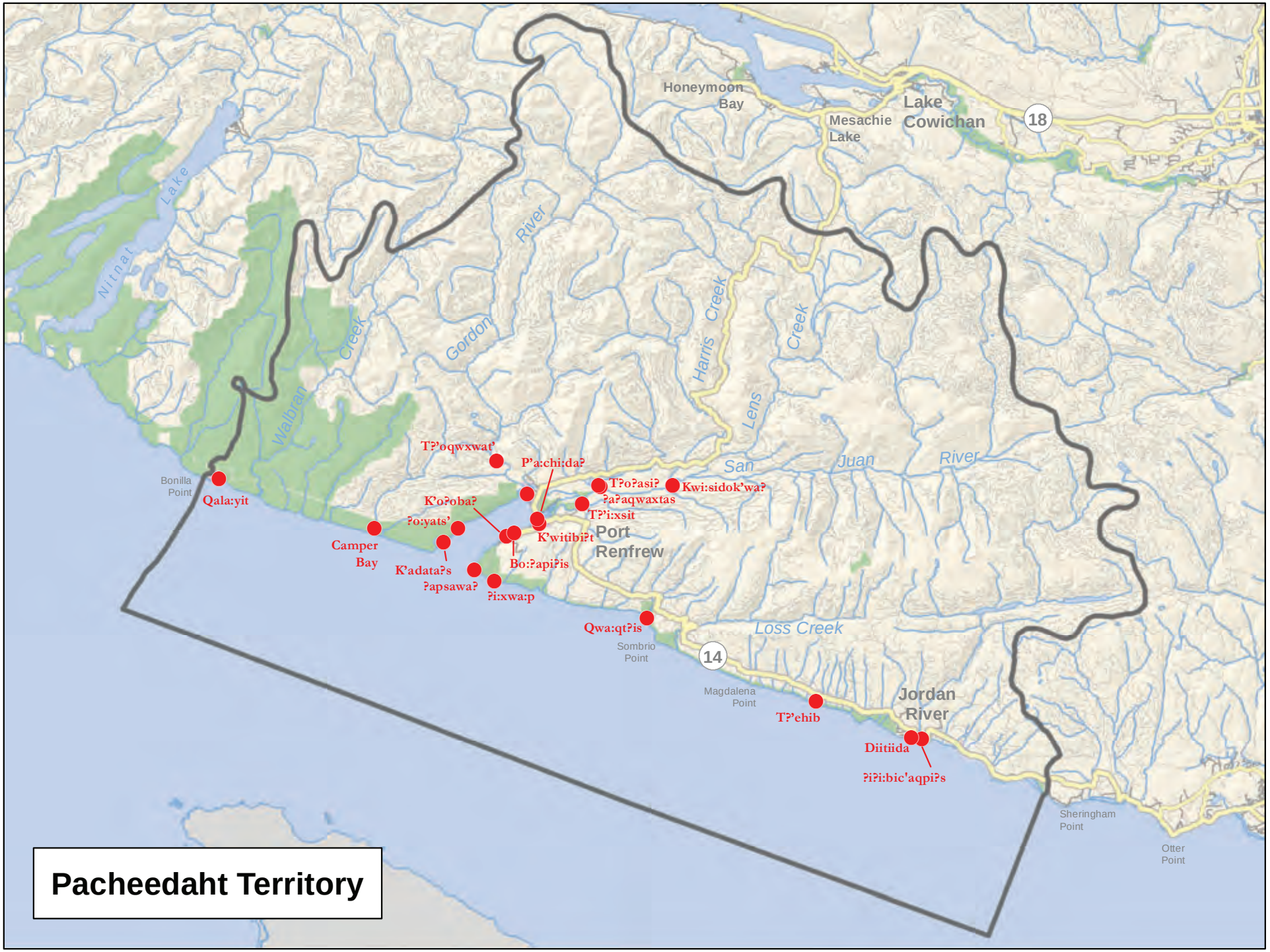

Figure 2: Pacheedaht Traditional Territory showing locations of villages and campsites.

Pacheedaht Traditional Histories

Traditional narratives present aspects of the worldviews, cosmology and history as perceived and recorded by First Nations' members. There are a number of traditional Pacheedaht and Ditidaht narratives that describe some of the early history of Pacheedaht people, their origin, and how they came to occupy their territory.

PreFlood Era – John Thomas

A reference to the earliest period of Pacheedaht history appears in an abbreviated account concerning the Preflood era that was written by John Thomas, a Ditidaht linguist who lived many years with the Pacheedaht at Port San Juan:[10]

> "In the preflood era only the village *di.ti.da?* [at] Jordan River existed. There were three brothers living in *di.ti.da?* who moved away. One settled at *ca.di.* on Tatoosh Island off Cape Flattery. From him descend the Makah people. A second brother settled at *pa.ci.da?* Port Renfrew and the eldest settled at *wa.ya.ʔaq* on the south side of the outflow from Nitinaht Lake to the Ocean. From these four sites the Nitinaht and Makah populations grew and spread until the disastrous smallpox epidemic of 1852."

The Great Flood

Along with other indigenous peoples around the world, the Pacheedaht and their neighbours the Ditidaht have traditional histories about a Great Flood that occurred long ago. One account of how the Ditidaht came to trace their origin to the village of *di.ti.da?* at Jordan River, in what is now Pacheedaht territory, was recounted by Ida Jones in the 1980s.[11] The account, recorded exactly as told by Ida Jones, begins as follows:

> "They move from Jordan River, it's *Ditida*. This side of the bridge, Renfrew side of the bridge, it's *Ditida*. Old people was living there, long, long time ago. Nitinahts, that's why they call Nitinahts and Pacheeda. And other side, this side of the bridge *?a?i•bi•suq'pis*, that's "maple tree beach", this side. And they used to say *Ditida*, Port Renfrew side of the bridge. That's where the people was living and the other side too. All the Nitinahts, I'm not talking about hundred years ago. I'm talking about way back, before when it was flood. This island was under the water, whole island. They moved. Ditidaht landed on *ka•ka•pi•a•* that big mountain at Nitinaht. That's where they landed."[12]

[10] Thomas and Hess. *Introduction to Nitinaht Language and Culture*. p. 158.
[11] Bates, Ann M. "Affiliation and Differentiation: Intertribal Interactions among the Makah and Ditidaht Indians. Unpublished Phd Disseration." Indiana University, 1987. pp. 290 – 293.
[12] Ida Jones is identifying two villages, one on either side of the mouth of the Jordan River. On the west side of the Jordan River, now crossed by a bridge, was the site of the village of *Ditida*. The village on the east side of the river was called *?a?i•bi•suq'pis* or "maple tree beach."

Ida Jones' account goes on to describe the ancient time before the Great Flood, when both the Pacheedaht and Ditidaht people were living at Jordan River. One family had been prepared for the Great Flood. A young man had come and given forewarning of what was to come – that the tide would go way down and up three times, then on the fourth time it [would] come way up. He warned people to prepare their canoes with water, dried fish, oil, extra paddles, poles and ropes. Events unfolded as predicted, and the one family managed to survive because they had prepared properly. The family floated around in their canoe for many days, but finally found a tree sticking up from the water. They managed to tie, and re-tie their canoe to the tree until after four more days the water subsided. They came to rest halfway down the side of the mountain called *ka•ka•pi•a•*. The family had to live on the mountainside for many years until the trees started to grow again. Eventually, after encounters with dangerous monsters and supernatural creatures, the sons descended the mountain and found a good place for a village at *Whyac*.[13] The reason the Ditidaht are called Ditidaht is that they drifted from Ditidaa at Jordan River on that side of the river. In her recounting of this narrative, Ida Jones repeatedly references the fact that this account had been told to her many times over and over by her grandfather.

Another version of the history of the Great Flood was told by a Huu-ay-aht elder, identified as *Hy-na-um,* by Alfred Carmichael, who recorded the story in 1922.[14] *Hy-na-um* had learned the story from his uncle, named *Cheepsaw*. Carmichael attempted to render the account in the style of English as he heard it from *Hy-na-um*. This first part of the account follows:

> Long ago a great many people lived at Nitinat. They get lots of blue whales and humpback whales, also killer whales not *yegyetchum* (probably the sperm whale), he was very strong. *Chautsem* was the Nitinat chief, he lived at the mouth of a creek on the south side of Nitinat Lake.

One year, when winter came, the rains came and continued for many days. The Ditidaht chief *Chautsem* became afraid and told his people to make long cedar ropes and to load all their goods into their canoes. He warned people to anchor their canoes to the elderberry root, not the spruce, hemlock or cedar, as their roots do not go deep into the earth. Some people did not follow this advice, but tied their canoes to the big trees. The water rose, the wind blew and the water boiled. The trees did not hold, some fell down and broke the canoes, killing some of the people; other canoes drifted out to the ocean. *Cha-uts-sem,* his wife and four daughters got into their canoe and tied the ropes to an elderberry which held fast. The water did not cover the high mountain called *Ka-ka-pee-a*. The chief's canoe came to rest on the top of this mountain. A great spirit visited the chief in his canoe, and gave him a song to sing and repeat four times. This caused the waters to recede. On the fifth day, *Cha-uts-sem* and his family wanted to gather his

[13] The main Ditidaht village at the mouth of Nitinat Narrows.
[14] Carmichael, Alfred. "The Legend of the Flood According to the Ohyaht Tradition." Indian Legends of the West Coast of Vancouver Island (manuscript). Victoria: B.C. Archives, Add Mss. 2306, 1922.

people. He found some at Neah Bay and some at *Ditidaa* (Jordan River); all were glad to find one another alive. The survivors built new houses at Nitinat where there were lots of dog salmon.

How the Ditidahts Came to Ditidaht

This account of the migration of the Ditidaht from Tatoosh Island to Jordan River, where they joined with the Pacheedaht, was told by Chief Peter of the Pacheedaht to linguist Morris Swadesh in 1931. It was originally recorded in manuscript linguistic transcription in a field notebook by Swadesh and was translated in 1985 into English by John Thomas.[15] A summary version, with commentary, is presented below.

The Tatoosh Island people[16] were preparing for the Wolf Ritual dance and invited the people from Ozette. After the Ozette people arrived, a man beating on a drum instead of a drumstick was using a rattle. The carved head of the rattle fell off during the drumming. This transgression of protocol greatly disturbed the Ozette people. They protested, then left in anger. They went home to Ozette, prepared a war party, and returned to Tatoosh Island at night. A battle ensued in which many Ozette people and many Tatoosh Island people were killed. The Tatoosh Island people wanted to retaliate but did not attack the Ozette as there was no place on Tatoosh Island to hide and defend themselves from retaliatory attacks. The chief decided they had to move, so the Tatoosh Island people all moved to *ʔiʔi.bicaqpiʔs* at Jordan River.[17] All the Tatoosh Island people set up their village there and stayed there a long time. The Clallam Bay people would come to visit, and would stand their canoes up on end when visiting. All the *ditidaht* tribes were living there. The *ditidaht* allowed the Clallam canoes to fall and break, and then they killed the Clallam people. They let the women live and made slaves of them. The same thing happened to several other tribes who visited the *ditidaht* at Jordan River. The Clallams and the other tribes got very angry and formed a war party to raid the *ditidahts* and *ʔiʔi.bicaqpiʔsaht.*[18] The battle lasted a whole day and many people on both sides died. After this, they moved to Cullite Bay, Carmanah, and *Qala:yit* (Cullite), all the *ditidahts*, some moved to Clo-oose and Whyac and Tsuquaadra. The village at Whyac already had many people who lived there. After living at Whyac for a while, the *ditidahts* went out to *ʔ'uöu:ʔa:* **(**Swiftsure Bank) to fish for halibut and saw some Makah people there. The *ditidahts* went home and formed a war party. They went back out to Swiftsure Bank, with some members of the party hiding in the bottom of their canoes. They attempted to cut off a party of Makah fishing in several canoes. Although they managed to kill some of the Makah, many others escaped by getting into a single canoe and paddling away home at great speed; the *ditidahts* could not catch them. For a

[15] Swadesh, Morris, and Mary Haas. "Nitinat Field Notebooks " American Philosophical Society Library, Franz Boas Collection of American Linguistica, Edward Sapir Nootka Materials, W2b.2, 372.1, Microfilm reels 51 and 52. Philadelphia, 1931. Notebook iv, pp. 23 -32. Translated copy by John Thomas at Royal BC Museum, West Coast Project Files, Folder Nitihaht.

[16] the name of these people is give as *c̓a•de•ʔtx•*, meaning "people of *c̓a•de*"; *c̓a•de* is the name for Tatoosh Island.

[17] Although John Thomas translates the name as "Jordan River" the original name recorded by Swadesh from Chief Peter is "*ʔiʔi.bicaqpiʔs*" or "maple beach place" as translated by Ida Jones in her account of the Flood, see above.

[18] In the original account as transcribed by John Thomas, it is indicated that the attack occurred on the "*di•ti•dʔa•ʔtx ʔiʔi•bic̓aqpiʔsaʔtx.*" The use of both names, meaning "the people of *ditidaa*" and "the people of "*ʔiʔi.bicaqpiʔs*" concurs with the description provided by Ida Jones in her Flood story, that there were two villages at Jordan River, one on each side of the river; one named *ditidaa*, and the other "*ʔiʔi.bicaqpiʔs.*

period afterwards, both the *ditidaht* and Makah people were afraid to go fishing on *?'uöu:?a:*.

The Pacheedaht arrive at Port San Juan

After the Great Flood, some of the ancestors returned to the village at *Ditiida*, or Jordan River A branch of the people from *Ditiida* and *?i?i:bic'aqpi?s* eventually moved to establish a village at the mouth of the San Juan River at *P'a:chi:da*. Chief Queesto Charlie Jones described the how the name *P'a:chi:da* came to be given to the San Juan River, to the village at the river mouth, and to the Pacheedaht First Nation itself.

> Our band name was changed to the name of the river because, after the Ditidaht people had been living here for a long time they discovered something new and strange. Some distance upstream, about 2 ¼ miles from the river's mouth, there was some kind of strange-looking foam forming in the water. There was so much of it that it covered the river banks to about eight feet above the level of the river itself. Everyone was very excited about the discovery of this foam, and everyone wanted to find out what it was. So they decided to get someone to taste it. They chose an old lady slave for the task – this was in the days when our people still kept slaves – as it was thought she was expendable, I suppose. Some of the men took her up the river and told her to taste the foam and tell them what it was. She picked up some of the foam with her fingers and put it in her mouth, and finally she said that it didn't taste like anything at all. It was salty though, like sea-foam. So they decided it was sea-foam, and everyone went back down the river to the village. They all talked it over and decided that the proper name for it was Pacheeda, which means "sea foam." Ever since that time, we have called ourselves the Pacheedaht, the Children of the Sea Foam.[19]

The Pacheedaht in Historical Records

The earliest recorded account of contact between the Pacheedaht and white explorers or traders originates with Robert Duffin, a member of Englishman John Meares' fur trading expedition to the west coast of Vancouver Island in 1788.[20] At 2 a.m. on July 17th, Duffin's boat entered Port San Juan and proceeded to a small cove at the mouth of one of the arms of the San Juan River. Duffin and his crew were met by canoes full of armed Pacheedaht people. Perceiving a threat, Duffin ordered his crew to fire upon the people in the canoes. During the ensuing battle, Duffin reported that some Pacheedaht were killed or wounded by gunshots, while arrows and other missiles wounded Duffin and some of his men, some quite severely. There are no surviving Pacheedaht accounts of these events.

---

[19] Jones, *Queesto*, 1981. pp. 21-22. For an alternate version of this history, also from Chief Queesto, see: George Inglis. ""The Pacheenahts of Port Renfrew."" *The Daily Colonist*, August 1, 1971. p. 12.

[20] John Meares. *Voyages Made in the Years 1788 and 1789, from China to the North West Coast of America*. 2 vols. Vol. II, London: Logographic Press, 1790. Appendix No. IV.

In 1789, the American ship *Columbia* visited Port San Juan. The crew recorded the name of the inhabitants of Port San Juan as "Patchenat."[21] A few months later, the Spanish vessel *Santa Gertrudis,* under the command of Narvaez, entered Port San Juan.[22] In June of 1790, another Spanish vessel, the *Princessa Real,* under the command of Manuel Quimper, visited Port San Juan on a voyage of exploration.[23] Records from Quimper's expedition document that the Pacheedaht villages in Port San Juan contained 300 people of both sexes.[24] A map produced by Lopez de Haro in 1790 shows Port San Juan and the locations of two Pacheedaht villages (marked "Rancheria"), one at the mouth of the north arm of the San Juan River, and the other at the mouth of the south arm of the San Juan River.

William Banfield, a white trader, wrote a newspaper account in 1858 that described the Pacheedaht as numbering about 20.[25] Their numbers had been recently and drastically reduced due to smallpox epidemics and a conflict with the Songhees. Banfield wrote that the Pacheedaht made their livelihood from fishing, hunting and trading. Trade in dogfish oil and halibut with the Sooke, Clallam and Songhees was particularly profitable. The Pacheedaht also procured bear, raccoon and mink skins for white traders.

Robert Brown, leader of the Vancouver Island Exploring Expedition, visited Port San Juan in 1864. A journal entry written at Port San Juan, estimates that the Pacheedaht "fighting men" numbered about 60 and Brown states that their borders are at "Jordan River (Dittida) in the east and Karlait on the west."[26]

In 1896, Brown published some of his observations about the Pacheedaht, based on his 1864 journal entries.[27] He described that the Vancouver Island shoreline opposite Cape Flattery was the "special territory" of the "Pachenahts," whose numbers were at the time severely reduced due to wars with the Clallams and Makahs and owing to the effects of smallpox. Previous to 1864, the Pacheedaht had made [war][28] as far north as Kyuquot and eastward to the territory of the Songhees at Victoria. Brown referred to Chief Queesto as a rich individual. Brown also stated, with reference to the Pacheedaht, that:[29]

---

[21] F.W. Howay, ed. Voyages of the "Columbia" to the Northwest Coast, 1787-1790 and 1790 -1793. Boston, Massachusetts Historical Society, 1941. (Reprinted by The Oregon Historical Society, 1990). p. 72.

[22] Esteven Jose Martinez. "Diary of 1789 Voyage to Nootka. Translated from Spanish Copy in Bancroft Library by William L. Schurz." Victoria, B.C.: B.C. Archives, Add.Ms. 291, 1789. p. 130.

[23] Wagner, Henry R. "Quimper's Diario, 1790 (Extracts)." In: *Spanish Explorations in the Strait of Juan De Fuca*, 91-132. Santa Ana, California: Fine Arts Press, 1933. Reprint A.M.S. Press, 1971. pp. 92- 93.

[24] Manuel Quimper. "Descrision General Del Estrcho De Juan De Fuca." Mexico City: Archivo General de la Nacion, Historia, Tom. 68. Typescript at BC Archives AA10M57, v.6, 1790.

[25] William E. Banfield. "Vancouver Island: Its Topography, Characteristics, Etc.: II the Netinett District." *Victoria Gazette*, 14 August 1858, p. 1. This population figure seems low compared to those provided before, by Quimper in 1790, and later, by Brown in 1864.

[26] Brown, Robert. "Journal: Vancouver Island Exploration Expedition." BC Archives, Robert Brown Collection, Add Mss 794, Vol. 1, file 16. Victoria, 1864.

[27] Robert Brown. "Introduction." In: *The Adventures of John Jewitt*, edited by Robert Brown. London: Clement Wilson, 1896.

[28] A typographical error exists in the publication, stating "made way."

[29] The reference to "Cockles" at Sombrio is an apparent attempt by Brown to render into English the Pacheedaht name for their village at Sombrio: *Qwa:qtlis*; the reference to the "Pandora and Jordan Rivers" flowing into Port San Juan is obscure.

> …their eastern border is, however, the Jordan River, but they have a fishing station at the Sombria (Cockles), and several miles up both the Pandora and Jordan Rivers flowing into their bay. Karleit [*Qala:yit*] is their western limit.

Post Confederation Records

The following report section provides a chronological summary of information about the Pacheedaht provided in records for the period after 1871, when British Columbia confederated with Canada. Emphasis is placed on summarizing information associated with Pacheedaht use of marine resources, and the related effects of the imposition of a federal regime, these being most relevant to this report.

At confederation of British Columbia with Canada in 1871, the responsibilities for Indian Affairs, and for Marine and Fisheries resources, were assumed by the federal government, with the jurisdictions for other affairs being assumed by the provincial government. Most information summarized below was obtained from the records of the Department of Indian Affairs.

Reports, 1871 - 1881

The Pacheedaht were first visited by the Superintendent of Indian Affairs, Dr. Powell, in July of 1875. He found them engaged in an "entertainment of a neighbouring tribe." A tribal census enumerated 74 Pacheedaht members.[30] Powell also reported in general on the "Ahts," meaning those tribes inhabiting the west coast of Vancouver Island.[31]

> ...They care very little for, and their knowledge of agriculture, is exceedingly limited. Indeed facilities for obtaining support, and even plenty, from other and more profitable means are so great, and the extent of cultivable land is so limited, that Nature has furnished these rude savages with every requisite to make them what they really are, "Toilers of the Sea." And happily so - for placed where they are, they can never become tillers of the soil….
>
> … Salmon is their great staple, and their winter stores are taken in August and September from the extensive inlets and rivers with which the whole coast is intersected. Many other varieties of fish, such as halibut, cod, herring & c., are obtained in any quantity, and with the greatest facility….
>
> The Ahts have strict customs in regards to their exclusive right to

[30] Powell, Israel W. "Report on Indian Affairs in the Province of British Columbia for the Year Ended 30th June, 1875. Reports No 28 (a) and 28 (B)." In Annual Report of the Department of the Interior for the Year Ended 30th June, 1875. Ottawa: Queen's Printer, 1876.

[31] Powell, I.W. "Correspondence: Powell, Commissioner of Indian Affairs, 31 October 1874." Library and Archives Canada. RG 10, Volume 3614, File 4105, Microfilm reel C-10107. Reports on the West Coast of Vancouver Island and of Barclay Sound (Map, Census, Report). Ottawa, 1874.

> everything their country produces. The limits of tribal properties, or tribal claims, to land are clearly defined…."

Powell reported again on the Ahts in his report for 1879, describing that they were fond of their traditional customs, that the sea afforded them with abundant sustenance, and they were able to make money easily from fish and furs, "they are born and bred 'toilers of the sea, " and that each tribe was jealous and tenacious of its territorial rights.[32]

> One tribe is not allowed to hunt or fish within the prescribed boundaries of another without permission and tribute, and the few white traders that are there have been obliged to purchase their right of tenancy from the Indians claiming it.

The Department of Indian Affairs established the West Coast Indian Agency, which included the Pacheedaht, in 1881 and appointed Harry Guillod as Indian Agent. In his first Annual Report, previously cited, Guillod noted that the native people in his agency were actively engaged in a thriving economy based on marine resources.

Establishment of Pacheedaht Reserves

The responsibility for establishing Indian Reserves in British Columbia was shared between Canada and British Columbia. A Joint Reserve Commissionwas initially established which comprised three commissioners . This commission was later reduced to a single Commissioner, Gilbert Malcolm Sproat, who in turn was replaced by Indian Reserve Commissioner Peter O'Reilly in 1880.[33]

In a letter to one of the original Reserve Commissioner, the government instructions laid out the following:[34]

> "You will assure the Indians of British Columbia of the friendly feeling of the Government of the Dominion towards them, and that it is the anxious desire of the Government to deal justly and reasonably with them in the settlement of their reserves.
> …
> ... it would not be politic to attempt to make any violent or sudden change in the habits of the Indians, or that those who are now engaged in fishing, stock-raising, or in any other profitable branch of industry should be diverted from their present occupations or pursuits, in order to induce them to turn their attention to agriculture. They should rather be encouraged to persevere in the industry or occupation they are

[32] Powell, Israel W. "Report of the Deputy Superintendent of Indian Affairs, 1879." In Annual Report of the Department of Indian Affairs. Ottawa: Canada, 1879.
[33] Harris, Cole. Making Native Space - Colonialism, Resistance and Reserves in British Columbia. Vancouver: UBC Press, 2002. pp. 73-174.
[34] Laird, D. "Memorandum of Instructions: Laird, Minister of Interior to Dominion Indian Reserve Commissioner Anderson, 25 August 1876 " In Library and Archives Canada. RG 10, Vol 3633, File 6425-1, Microfilm reel C-10111. Correspondence, Reports, Surveys and Accounts of the Indian Reserve Commission in British Columbia, 1876-1878. Ottawa, 1876.

> engaged in, and with that view should be secured in the possession of the villages, fishing stations, fur-posts or other settlements or clearings which they occupy in connection with that industry or occupation..."

Similar instructions were issued to Peter O'Reilly upon his appointment as Indian Reserve Commissioner in 1880:[35]

> In allotting Reserve lands to each Band you should be guided generally by the spirit of the terms of Union between the Dominion and local Governments which contemplated a "liberal policy" being pursued towards the Indians. You should have special regard to the habits wants and pursuits of the Band, to the amount of territory in the Country frequented by it, as well as to the claims of the White settlers (if any).
> ...
> …being specially careful not to disturb the Indians in the possession of any villages, fur trading posts, settlements, clearings, burial places and fishing stations occupied by them and to which they may be specially attached. . . .

A letter written by the Deputy Superintendent of Indian Affairs in 1881 emphasizes the importance of fishing to First Nations generally, and in particular the necessity of securing their "fishing stations" as Indian Reserves as well as fishing rights in important streams and rivers."[36]

> From the facts mentioned in Supt Powell's letter you will observe that salmon afford the chief source of food to all the Coast Indians, there being no agricultural lands where from they can derive a living by tilling the same. You will therefore be able to appreciate the suggestions thrown out by Mr. Powell that there is a vital necessity that Fishing Stations and certain streams should be specially reserved for the Coast Indians as a means of support just as agricultural lands are set apart for the Indians of the interior of that Province wherewith to support themselves by farming and stock raising. You will also observe that the sudden development of large canning establishments on the coast of B.C. render the danger more imminent of the Indians being deprived of the sustenance hitherto derived by them through fishing; and their complaints already of encroachments by Whites are, the Supt reports, of almost daily occurrence.

[35] Macdonald, John A. "Letter of Instructions: Macdonald, Superintendent General of Indian Affairs to O'reilly, Indian Reserve Commissioner, 9 August 1880." In *Library and Archives Canada. RG 10, Vol 3716, File 22195, Microfilm reel C-10125. Correspondence Concerning the Appointment of Patrick O'Reilly, Esq. as Indian Reserve Commissioner for British Columbia to Replace Gilbert M. Sproat Who Resigned, 1880*. Ottawa, 1880.

[36] Vankoughnet, L. "Correspondence: Vankoughnet, Deputy Superintendent General of Indian Affairs to Whitcher, Commissioner of Fisheries, 17 October 1881." In Library and Archives Canada. RG 10, Volume 3766, File 32876, Microfilm reel C-10135. Fisheries of Upper Nass Villages, British Columbia,1881-1883. Ottawa, 1881.

The instructions to O'Reilly concerning the establishment of fishing rights at certain locations, as well as Indian Reserves, are reiterated in a letter written later in 1881 by John A. Macdonald, who was Superintendent General of Indian Affairs at the time, to the Department of Marine and Fisheries.[37]

> I have the honor to inform you that Judge O'Reilly having been last year appointed Commr. for allotting lands as Reserves in British Columbia for occupation by the Indian Bands and Tribes of that Province I considered it expedient and proper to instruct him, while engaged in assigning these lands, to mark off the fishing grounds which should be kept for the exclusive use of the Indians and he is following those instructions.…

In 1882, the Pacheedaht were visited by Indian Reserve Commissioner Peter O'Reilly, who initially established two Indian Reserves for them at Pacheena IR #1 and at Gordon River IR #2. His correspondence and Minutes of Decision for the these Reserves make it clear that these two Reserves were established for the purpose of securing to the Pacheedaht their traditional supply of salmon. Further, in recognition of the special importance of this resource, O'Reilly took the unusual step of reserving to the Pacheedaht the right to fish in both branches of the lower San Juan River, as described in his Minutes of Decision, quoted below.

Further, although he was unable to visit the Pacheedaht village at Cullite (*Qala:yit*), some five miles from Port San Juan (Map 1), O'Reilly recognized the importance of this location as a fishing station, and that the Pacheedaht were expert and prosperous fishermen. He wrote: [38]

> The salmon fisheries on both the North and South Branches of the San Juan River are very valuable, as supplying the entire wants of the tribe with this staple article of consumption; the right to fish has been reserved to them on both branches from the head of tidal water to the Forks, a distance of about two and a half miles.
>
> The halibut, and dogfish station of this tribe is situated at Cullite on the west coast of Vancouver Island, which I passed but was unable to visit owing to the heavy sea which was then running; this must be attended to at some future time.

[37] Macdonald, John A. "Correspondence: Macdonald, Superintendent General of Indian Affairs to Mclelan, Acting Minister of Marine and Fisheries, 25 October 1882 " In Library and Archives Canada. RG 10, Volume 3766, File 32876, Microfilm reel C-10135. Fisheries of Upper Nass Villages, British Columbia,1881-1883. Ottawa, 1882.
[38] O'Reilly, Peter. "Minutes of Decision: Pacheena Indians, 18 October 1882." In A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 10: File 29858-3, Volume No. 10. Minutes of Decision, Correspondence & Sketches - P. O'Reilly, June 1882 to February 1885, 319-25. Ottawa, 1882.

> These Indians being expert fishermen are largely employed by the sealing schooners which frequent this coast during April, May and June, they also obtain a quantity of fish oil for which they find a ready market, and were it not that their hard earned money is wasted in drinking, gambling and making potlatches, they would be a prosperous community.

Several years later, in 1890, O'Reilly was finally able to visit *Qala:yit*, and to have it established as Cullite IR #3, which he described as "a halibut and dogfish station this is much valued by the Indian, it is the only place within many miles where a canoe can land with safety."[39] The Pacheedaht village at *Qala:yit* (Cullite) provided access to the rich fishing grounds at *?'uöu:?a:* **(**Swiftsure Bank).

The Pacheedaht were not happy with the Reserves established by O'Reilly, and a conflict arose between the Pacheedaht and settlers about a Pacheedaht fishing station on the San Juan River that had been pre-empted by the MacDonald brothers. In January 1894 West Coast Indian Agent Guillod wrote to Vowell, Superintendent of Indian Affairs for BC as follows:[40]

> Indian Peter's land and the MacDonald preemption. The Chief Queesto and his son Charley and Peter are much dissatisfied at the size of the Reserve No. 1 at the mouth of the San Juan River. Queesto and John who were with the I.R. [Commissioner] when he apportioned the Reserve said they understood that they were to have a larger piece than was given them. I remember they asked for the whole of the island formed by the River which Mr. O'Reilly said he could not give them. Peter's land is on Mcdonald's preemption a few hundred yards above the Indian Reserve land. He was not at Pacheena at the time of the I.R. [Commission] .... I explained to the Indians ... that when the I.R. Commissioner came he consulted with the Chief and gave the tribe what he [thought] sufficient for their needs then.

In an apparent attempt to resolve the situation, O'Reilly visited Port San Juan and established a 28 acre fishing station on the west bank of Harris Creek at the San Juan River as Queesidaquah Indian Reserve # 4.[41]

The four Indian Reserves established for the Pacheedaht comprise but a tiny fraction of Pacheedaht territory (see Map 1). The fishing rights that Reserve Commissioner

[39] O'Reilly, Peter. "Correspondence: O'reilly, Indian Reserve Commissioner to Superintendent General of Indian Affairs, 3 March 1890." In A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 12: File 29858-5, Minutes of Decision, Correspondence & Sketches - P. O'Reilly, April 1889 to January 1892, 298-302. Ottawa, 1890.

[40] Guillod, H. "Report: West Coast Agency to Superintendent-General of Indian Affairs, 16 September 1892." In Annual Reports of the Department of Indian Affairs for the Year Ended 31st December, 1892, 235. Ottawa: Queen's Printer, 1892.

[41] Peter O'Reilly. "Minute of Decision of IR #4, October 30,1894." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1894.

O'Reilly established for the Pacheedaht on the San Juan River, as well as similar rights at other locations throughout the Province for other First Nations, sparked a jurisdictional dispute between the Department of Indian Affairs and the Department of Marine and Fisheries. The latter department claimed that neither the Reserve Commission nor the Department of Indian Affairs had the authority to establish such rights.

The Royal Commission on Indian Affairs for the Province of B.C. (RCIABC) visited the Pacheedaht in 1914, and the Pacheedaht took the opportunity to express their dissatisfaction with their Reserves.[42] Pacheedaht member George Robinson stated:

> These pieces of land on which our Reserves are situated are of very little use on account of the poor quality of the soil…
>
> A long time ago when I was a kid and my grandfather was living, the surveyors came here - they never said a word about it. I was only a child at the time - It is the same thing now, we are always afraid to say anything to the whitemen about our land.... [It] just looks to me as if these four [reserves] were picked out for the Indians because they were so poor in soil and given to the Indians. Some of us Indians would like to put in a garden and utilize the land if it was any good; but we might just as well sit in the house as to try and cultivate this land.

Pacheedaht Chief Peter stated further to the Commissioners, with reference to the Reserves, that:[43]

> …this reserve is too small - As I said before it is just like as if we are in a tub, there is no room on it ... I want to try and get a bigger Reserve so that we will have some room - All the little boys are growing up and pretty soon there will be no room for us .... Sometimes we are very hard up for grub during the close season because we can't go and shoot elk and deer for our own use - All we have is fish to eat, and outside the Japanese are fishing in the sea. We are not like whitemen and business men - we can't put our hands to anything. When we ask them for a job they say "we don't want Indians we want our own whitemen" and that is the reason we want to kill a few deer for ourselves. We only use them for our own use and food. We always try to obey the laws, we don't try to ride over the whiteman's laws, we try to do the best we can.

[42] Royal Commissiion on Indian Affairs for the Province of B.C. "Meeting with the Pacheedaht on Their IR # 1 Reserve on May 6, 1914." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1914.
[43] Ibid.

The RCIABC later confirmed the four Pacheedaht Indian Reserves. The Pacheedaht's general application for the enlargement of their Reserves was rejected by the Commission as "not entertained, as not reasonably required."[44]

With respect to the fishery rights established by Indian Reserve Commissioner O'Reilly, after some considerable effort had been spent on investigation, the Commission report included the following Minute:[45]

> WHEREAS former Indian Reserves Commissioners, acting under joint Governmental Agreements, allotted defined Fishery Rights to certain Tribes or Bands of Indians in British Columbia;
> WHEREAS this Commission has been unable to obtain any advice from the law officers of the Crown in right of the Dominion of Canada as to the authority of the said former Commissioners to allot such fishery rights;
> AND WHEREAS this Commission desires that any right or title which Indians may have to such allotted fisheries may not be adversely affected by inaction on its part-
> BE IT RESOLVED: That, to the extent to which the allotting Commissioners had authority to allot such Fishery Rights, this Commission, insofar as the power may lie in it so to do, CONFIRMS the said allotted Fishery Rights…

Department of Indian Affairs Annual Reports

Commencing in 1881, the West Coast Agency Indian Agent submitted an annual report that was published in subsequent Annual Reports of the Department of Indian Affairs.[46] Some of these reports contain information about the Pacheedaht generally, and their use of marine resources, as follows.

In 1881, as previously cited, Agent Guillod reported that the Pacheedaht total population was 82, and that the west coast tribes generally made a good deal of money from fishing and sealing.[47]

In 1891, Guillod commented on the effects of the impending closure of the commercial fur seal hunt to the Bering Sea, a major source of income for First Nations hunters, including the Pacheedaht.[48]

---

[44] Royal Commission on Indian Affairs for the Province of British Columbia. "Meeting with the Pachena Tribe or Band of Indians on their No. 1 Reserve, Held on the 6th. Day of May, 1914." Transcript obtained from http://www.ubcic.bc.ca/Resources/ourhomesare/testimonies/. Victoria, BC: Province of British Columbia/Canada, 1914.
[45] Royal Commission on Indian Affairs for the Province of British Columbia. *Report of the Royal Commission on Indian Affairs for the Province of British Columbia*. 4 vols. Victoria, BC: Acme Press, 1916.
[46] Library and Archives Canada. "Indian Affairs Annual Reports, 1864-1990." www.collectionscanada.gc.ca, http://www.collectionscanada.gc.ca/databases/indianaffairs/index-e.html.
[47] Ibid, 1881 Annual Report of DIA.
[48] Ibid, 1890 Annual Report of DIA.

> The closing of the Behring Sea to British sealing vessels will be a loss to the Indians in my agency. The tribe of Heshquiahts alone made $9,000 by sealing in Behring Sea last year, and many of the young men depend on this as a means of support, neglecting dogfish oil and canoe making.

The 1896 Annual Report presents an overall picture of the substantial economy of the west coast tribes.[49]

> The principal occupation of all the able-bodied men of these tribes is sealing. Some men make their living entirely by making canoes, which are chiefly sold at home, there being a great demand for sealing canoes since that industry became general, and canoes are double the value they were when I first came on the coast, as they soon wear out and are liable to be broken on board the schooners.
>
> The dogfish-oil industry used to be of importance, but owing to the low price and limited market, very little is made at the present time. Some canoes of West Coast Indians go to the Fraser River salmon fisheries, but since the greater demand for Indian sealers, not nearly so many as formerly…
>
> The Indian catch of fur-seal for the months of May and June when the Indians alone have the privilege of sealing, amounted to fifteen hundred. These with the Behring Sea catch and schooner catch on the coast, with the furs got in all the tribes, such as bear, land-otter, beaver, marten, mink, raccoon and an occasional sea-otter, average in value for the year one hundred dollars for each male over the age of sixteen. Deer are found on the islands and up the sounds, and a few elk at the heads of the inlets. The hair-seal is also hunted, being a favourite article of food; and a few small whales are harpooned or cast ashore during the year, whale blubber and on being considered a great delicacy and being a marketable commodity among themselves. Halibut cut thin and dried in the sun is also an article for sale and barter. While fish is the staple article of food, the consumption of flour, sugar, canned goods and most other articles of food used by the white man have largely increased among them of late years. There is no systematic farming, in fact, except at Alberni and in Barclay Sound they have little land suitable for it, and make so much easier a living in other ways. A few young fruit trees are planted out here and there, with small garden patches of potatoes and perhaps a few rows of carrots and turnips, generally on deserted village sites, the work being done by the women. The women employ their spare time in making cedar, rush and rag mats, many of the young women also make small

[49] Ibid.

> baskets of various shapes and table mats which are very neatly worked in coloured grass on a cedar bark foundation. The women are all clever at making their own and their children's clothes, and many of them possess sewing machines, and knit socks.

During the following years, the Annual Reports describe a general decrease in the formerly lucrative fur seal hunt, with some good years occurring, and with most returns coming from the "Indian" catch by canoe from shore. Increasing attention came to be paid to other pursuits that include: trapping (black bear, otter, mink), canoe-making, working in transport, supplying logs to saw-mills, making cedar blocks for shingle making, working in the Fraser River Canneries or American hop-fields, fishing, and sale of hand-made basketry items. Nonetheless, the West Coast Agency people, including the Pacheedaht, continued to rely on marine resources for the livelihood, as noted in the 1910 Annual Report:[50]

> The Indians of this agency may be said to live on the water and by the water. All their houses are built close to the water, the Pacific ocean or some inlet thereof, and it is from the ocean in one way or another that they derive their livelihood. Sealing and salmon fishing are the two occupations that engage the attention of the bulk of the people.

In 1912, fur sealing, which for many years had been so lucrative for the Pacheedaht and other west coast tribes, was essentially banned with the signing of an international treaty. At the same time, an increase in white settlement and associated developments was predicted and the Indian Agent of the day expressed his personal opinions concerning the resulting changes for native people.[51]

> Sealing and fishing have been for many years the principal sources of revenue for these Indians, with hunting small wild animals for their fur as a winter employment. Owing to the treaty recently made between the dominion of Canada, Japan, Russia and the United States, there will be a close season for the next fifteen years for seals, which will do away with the industry of fitting out schooners to hunt the seal both in the open ocean and, later on in the summer, in Behring sea.
>
> Provision was made in the treaty, at the wise suggestion of the Indian Department, exempting from its operation the practice of what is known as off-shore sealing, which consists of the Indians hunting the seal as they pass northward along the coast of Vancouver island. The Indians would go out in their own canoes, sometimes as far as twenty miles from shore and as they had not to share their catch with the owners of the schooners as when employed by them, they often did very well, more especially of later years when owing to their scarcity,

[50] Library and Archives Canada. *Indian Affairs Annual Reports*, 1905 Annual Report.
[51] Ibid. *Annual Report*, 1912.

> the price of seal skins has been increasing rapidly…On the other hand chance entered very much into the matter, as an Indian might go out for a week and never see a seal or he might be detained on some isolated island, which he used as a base for ten days without either being able to go out hunting or even to return home on account of bad weather. Or perhaps the seal herd would not come within fifty miles of one part of the coast one year and the following year come close in, within a few miles...
>
> The next five or ten years will see a marvelous change on the coast along which this agency lies. It is beginning now. Formerly many of these bands hardly ever saw a white man except while they went to the Fraser river or elsewhere fishing in the summer-time. In a few years, whaling stations, salmon canneries, cold storage depots for fresh salmon, halibut and herring, saw-mills and many other industries will so open up the country that the Indian will have to change his habits if he is to survive. He will no longer be able to build a fish trap in the fall and in a few week's work, most of it being performed by his wife, get enough salmon to keep him all winter. He will have to acquire the habit, whether he likes it or not, of working regularly and faithfully for wages in accordance with his abilities as compared with other classes of labour and to recognize the fact that he and his fellows are but a very small and insignificant factor in the world's affairs and to realize the futility of attempting to obstruct the tide of commercial progress.

Pacheedaht Use of Aquatic Resources

The following report section presents information about the traditional use of aquatic resources by members of the Pacheedaht First Nation. The information is summarized, to provide context and details for the information related to traditional use and occupancy sites that follows.

The best generalized summary description of the Pacheedaht traditional seasonal round from ethnographic sources was recorded by anthropologist Eugene Arima based on information he obtained primarily from Chief Queesto Charles Jones Sr. in the 1970s. The seasonal round description likely relates to the time of Queesto's youth (b. ca. 1876) in the late 1800s.[52]

> In the spring from about as early as April and into May and June, people moved out of Port San Juan, in the case of the Pachena, to fishing camps outside where they caught halibut, red snapper and cod, and dried them. At times they might come inside the bay to catch and dry sockeye. Word was always sent out by those who remained inside when the sockeye fishing was good. The sockeye runs begin about

[52] Arima, *Environment and Exploitative Techniques of the P'achi:da7ath*, p. 41-42.

> April and last till about July when the last ones go up to spawn and die. People would stay essentially in the outside coast camps until the last part of September when they would return to the inside winter villages to get ready for the fall salmon runs, preparing weirs and traps. The salmon runs go upriver for a month and a half to two months in late September and October. In some years the river is too high so that the salmon could not be caught. In other years the river could be too shallow, making the fish worn out and tired. They tried, of course, to catch the salmon while they were fresh and bright. The sequence of the fall runs is: steelhead, cohoe [sic], spring, humpback and dog salmon. The catches were dried and stored for the winter as the prime economic support of the more or less sedentary large village aggregations with elaborated social organization and much ceremonialism characteristic of Northwest Coast peoples.

It is interesting to note that the traditional seasonal movements of the Pacheedaht were determined, in large part, by the availability and abundance of various species of marine resources, particularly fish, and specifically salmon. Other marine resources, including the various types of seafood, were available throughout most parts of the year. For the period for which the seasonal round description applies, the late 1800s and early 1900s, hunting for whales, fur seals and sea otters in Pacheedaht territory was ending as these species were being overhunted, as described later. Although the Pacheedaht seasonal round movements were largely determined by availability of fish species, they also relied on a wide variety of other aquatic and land resources, as documented in the following report sections.

Marine Resources and the Pacheedaht Economy

Prior to and at the time of Contact, the Pacheedaht economy relied primarily on marine resources and included trade in these resources. Pacheedaht people got their food, resources and livelihood from the ocean. Selected published and unpublished sources are summarized below to provide evidence for these statements.

Prior to Contact, most of the Pacheedaht diet and economy comprised marine resources. A report from a recently completed archaeological excavation at the historic Pacheedaht village at *Qwa:qtɬis* near the mouth of the Sombrio River summarized the results as follows:[53]

> The artifact assemblage is typical of late West Coast Culture Type with a toolkit focused on the exploitation of maritime resources and supports DcSb-1 as semi-permanent fishing village. During the assessment of DcSb-1, faunal remains were analyzed…

[53] Madrone Environmental Services Ltd. "Archaeological Impact Assessment for Proposed Repairs to Park Trails and Facilities at Sombrio Beach, Juan De Fuca Provincial Park. Heritage Inspection Permit #2013-0263." Duncan, BC: Madrone Environmental Services Ltd, 2014. p. v.

> A total of 2,533 bone elements were recovered from the excavation unit and column samples, as well as a wide variety of shellfish species, predominantly mussel. The excavation unit contributed 66.5% of the bone assemblage (1,685 elements), while the column samples contributed the remainder. Fish contributed 91.8% of the number of bone elements, 7.2% were mammal elements, while bird contributed 1%. The overall faunal assemblage indicates a heavy reliance on fishing and either a year round occupation, or a summer occupation by a fairly large number of people. A radio carbon age was determined using a charcoal sample collected from EU 2 at 70 cm DBS, providing a calibrated date of 480-390 BP, or 1470-1560 AD. The artifact analysis, faunal assemblage and radio carbon date obtained from DcSb-1, all collaborate Pacheedaht oral history accounts of Sombrio, *Qwa:qtɬis*, as a fishing village occupied at the time of early European contact.

There are many accounts from early European and American exploration and trading voyages to the west coast of Vancouver Island that describe the extent to which native people of the region relied on marine resources. One detailed example, written by English explorer Capt. Cook based on his observations at Nootka Sound in 1776, is presented here:[54]

> Though their food, strictly speaking, may be said to consist of every thing animal or vegetable that they can procure, the quantity of the latter bears an exceedingly small proportion to that of the former. Their greatest reliance seems to be upon the sea, as affording fish, muscles, and smaller shell-fish, and sea animals. Of the fish, the principal are herrings and sardines; the two species of bream formerly mentioned; and small cod. But the herrings and sardines are not only eaten fresh, in their season, but likewise serve as stores, which, after being dried and smoked, are preserved by being sewed up in mats, so as to form large bales, three or four feet square. It seems that the herrings also supply them with another grand resource for food which is a vast quantity of roe, very curiously prepared. It is strewed upon, or, as it were, incrustated about, small branches of the Canadian pine. They also prepare it upon a long narrow sea grass, which grows plentifully upon the rocks, under water. This caviare [sic], if it may be so called, is kept in baskets or bags of mat, and used occasionally, being first dipped in water. It may be considered as the winter bread of these people, and has no disagreeable taste. They also eat the roe of some other fish, which, from the size of its grains, must be very large; but it has a rancid taste and smell…For though they split and dry a few of the bream and chimaerae, which are pretty plentiful; they do not

[54] Cook, James. A Voyage to the Pacific Ocean, Book Iv. Volumes 1 and 2 Written by Captain James Cook, Volume 3 Written by Captain James King. London: H. Hughs, 1784. pp. 320-322.

smoke them as the herrings and sardines.

> The next article, on which they seem to depend for a large proportion of their food, is the large muscle [sic]; great abundance of which are found in the Sound. These are roasted in their shells, then stuck upon long wooden skewers, and taken off occasionally as wanted; being eaten without any other preparation, though they often dip them in oil, as a sauce. The other marine productions, such as the smaller shell-fish, though they contribute to increase the general stock, are by no means to be looked upon as a standing or material article of their food, when compared to those just mentioned
>
> Of the sea-animals, the most common that we saw in use amongst them, as food, is the porpoise; the fat or rind of which, as well as the flesh, they cut in large pieces, and having dried them, as they do the herrings, eat them without any further preparation
>
> …
>
> It may also be presumed that they feed upon other sea-animals, such as seals, sea-otters, and whales; not only from the skins of the two first being frequent amongst them, but from the great number of implements, of all sorts, intended to destroy these different animals. Which clearly points out their dependence upon them; though perhaps they do not catch them in great plenty at all seasons; which seemed to be the case while we lay there, as no great number of fresh skins, or pieces of the flesh, were seen.

Not only did marine products form the basis of the native coastal diet and harvesting cycle, they were also a significant basis of the economy. In this example, a member of Cook's crew at Nootka Sound described the local inhabitants as intrepid merchants who bought and sold enough fish to feed the entire ship's crew:[55]

> The Indians bring us flat fish now enough for us to serve the whole Ship's Company, and they bring the fur of the Sea Beaver & the skins of Bears, Wolves [and] other Animals to sell…..they bring us some Sprats to sell as well as flat fish & it is as common to buy a halfpenny of Sprats here as it is in London, they measure them out to us & give us good pennyworths and are very fine fish.

Native trade networks extended far up and down the west coast of Vancouver Island, from Nootka Sound to the Pacheedaht and other native inhabitants around the Strait of

[55] Samwell in: Beaglehole, John C., ed. The Journals of Captain James Cook on His Voyages of Discovery. Iii the Voyage of the Resolution and Discovery, 1776-1780. 2 vols. Cambridge, England: Published for the Haklyut Society by Cambridge University Press, 1967.

Juan de Fuca, as observed by Spanish explorer Martinez in 1789, who wrote, while at Nootka Sound:[56]

> …for the natives of different villages carry on communications and trade with each other. It is more probable that the natives from the south, already civilized, should have introduced both metals, carrying them from village to village. As proof of this, I cite the instance of a silver spoon which a few days ago the natives of this port stole from me. The men who had set out in the schooner found it a long distance away to the south, among the natives of the port of Clayocuat, from whom they bought it in exchange for a piece of iron. As further proof that the Indians trade and traffic among themselves and carry news from one place to another there is the fact that, although I have not left this port, the natives along the strait of Juan de Fuca know very well that I am anchored here.

Trade in marine products was a standard feature of the traditional economy of native groups in the region, with neighbouring groups exchanging special or abundant products with one another. The following excerpt from a traditional account from Barkley Sound describes the trade that occurred when a man named *Na:we:?ik* successfully killed a whale:

> Those who were camping out digging clams heard about it. They got ready and went out to help tow the Humpback [whale] that *Na:we:?ik* caught. The women did not go with the men because they were afraid to cause ill luck to the hunters, as it was taboo for some women to go near whaling equipment. They started towing the Humpback and landed at *?Aqis* a nice clear beach near *M'oqwa?a'*.[57] The *Hach'a:?ath* heard about it also. All the women from *Hach'a:?ath* came to help butcher the whale. They brought dried butter clams and dried horse clams to trade for chunks of whale meat they cut off. And then all the canoes of each tribe were full of the meat that *Na:we:?i:k* gave each one. He got lots of dried butter clams and horse clams because the *Ts'isha:?ath, Hach'a:?ath* and *Ma:ktl?i:?ath*[58] were now gathering together.

Amongst the few records of exploration or trading visits to the Pacheedaht in Port San Juan, previously summarized, there is a description of the Pacheedaht trading fish and marine products. When the American ship *Columbia* visited Port San Juan for a few days in 1792, the Pacheedaht traded furs, plenty of fish and some train oil[59] for chisels and other trade goods.

---

[56] Martinez, Don Estevan Jose. "Diary of the Voyage...In the Present Year 1789." In BC Archives. Add Mss 291. Victoria, 1789.
[57] Locations on what is now called Turrett Island in Barkley Sound.
[58] The *Ts'isha:?ath, Hach'a:?a*th and *Ma:ktl?i:?ath* are native groups in Barkley Sound.
[59] Train oil is oil rendered from whale blubber.

Other later records afford evidence that the Pacheedaht were profitably engaged in fishing and selling marine products to white traders as well. Beginning in the late 1820s, the general area of Juan de Fuca Strait, and Neah Bay in particular, became an important trading hub, attracting American traders from Boston, and, later ships from the Hudson Bay Co. In 1829 the 'straits of Juan de Fuca" were described as "becoming a place of resort for the purpose of trade" in sea otter, land pelts, fresh fish, oil, and *haiqua* (dentalia shells).[60] The dentalia shells and oil (whale oil or dogfish oil) were the most important items of trade. The Pacheedaht undoubtedly participated in this trade.

The Pacheedaht were also involved in whaling ,as mentioned. They traded whale oil to the crew of the *Columbia* in 1792, and the 1896 Annual Report of the Department of Indian Affairs describes that whale products continued to be traded by native people along the west coast of Vancouver Island. Chief Queesto recalled that before the white man came, the Pacheedaht used whale oil instead of money – the whale oil could be exchanged for blankets, rice, beans, potatoes, sugar, biscuits and other goods.[61] In 1841, Sir George Simpson of the Hudson Bay Co. wrote:[62]

> For many years, it has been known that the whales were very numerous about the Straits of de Fuca, and in the Gulf of Georgia, and that the Indians of Cape Flattery and the Straits of de Fuca were expert, even with their bone lances, grass lines, and other rude implements of their own manufacture in killing them.

The Pacheedaht, over time, developed precise and extensive knowledge of the oceanic portions of their territory, including knowledge about the intricate relationships between sea dwelling creatures, including whales. For example, a Pacheedaht chief described watching a whale feeding on herring (near Swiftsure Bank) swimming round and around the school to create a vortex which packed the fish near the surface, then coming up from below with an open mouth. This is an early report of a humpback "bubble net" feeding, noted long before the behaviour was reported by white scientists.[63]

There are many traditional narratives associated with the whales with other supernatural creatures.[64] In these stylized accounts, the preferences and practices of traditional whalers, the relationship between the whaler, whales and the spiritual world, the

[60] Mackie, Richard. "Trading Beyond the Mountains, the British Fur Trade on the Pacific 1793-1843." Vancouver, BC: UBC Press, 1997. pp. 232-4.
[61] Jones, *Queesto*, 1981, pp. 54.
[62] Cited in: Webb, Robert Lloyd. On the Northwest, Commercial Whaling in the Pacific Northwest 1790-1967. Vancouver BC: University of British Columbia, 1988. p. 89.
[63] Kool, Rick. "Northwest Coast Indian Whaling: New Considerations." Canadian Journal of Anthropology 3, no. 1 (1982).
[64] Sapir, Eward. The Whaling Indians: West Coast Legends and Stories: Tales of Extraordinary Experience Told by Tom Sa:ya:Ch'apis, William, Frank Williams, Big Fred, Captain Bill and Qwishanishim. Canadian Ethnology Service, Mercury Series Paper 139. edited by Eugene Arima, Terry Klokeid and Katherine Robinson Hull, Quebec: Canadian Museum of Civilization, 2004.

importance of whale hunting, and the ritualized behavior to the hunt are all described in detail.

Today the Pacheedaht First Nation celebrates their whaling heritage in their logo (see report cover). The logo portrays a traditional whaler, a whaling canoe, a whaling harpoon and line, and a humpback whale. The recent reassertion of the right to hunt whales by the Makah presents the possibility of a modern whale hunt for the Pacheedaht and other whaling First Nations, should whale populations and circumstances allow. Traditional foods can improve the health of First Nations people, and the revival of whaling and whaling rituals could reinvigorate native spirituality.[65]

Although whaling had tremendous ritual and ceremonial significance for the Pacheedaht and other west coast native peoples, it also had economic value:[66]

> West coast whaling has been academically regarded as being more a matter of prestige than economics, following Philip Drucker's evaluation of as such (1951:49). Certainly its prestige value was very great, but the economic returns were major as well, particularly among groups farther out to sea on the outer coast or islands….

Commercial whaling off the west coast of Canada, conducted mostly by whaling boats from the vicinity of Boston and New Bedford in the United States, began in the mid-1800s, and, while profitable for the crews and owners, resulted in wholesale slaughter of whale populations in the north Pacific Ocean. Later, the establishment of a whaling station in Barkley Sound in the early 1900s, using improved whale hunting and processing technology, resulted in the slaughter of thousands of local whales.[67] Commercial whale hunting drastically reduced inshore whale populations and effectively brought an end to native whaling. Chief Queesto Charlie Jones recalled that by the time he was strong enough to use a big whaling spear, there was no more whaling on the coast as the white hunters had killed all the whales.[68]

When Captain Cook visited Nootka in 1778, he obtained some sea otter pelts in trade from Chief Maquinna's people, and later sold these for enormous profit in China. This news, when published, sparked a flood of commercial voyages from Britain and the United States to the west coast of Vancouver Island, seeking to obtain the valued sea otter pelts in trade from the local native hunters. As a result, sea otters were hunted intensively and the population was severely reduced by the late 1700s although trade in the pelts continued well into the 1800s.[69] Chief Queesto recalled that his father used to make a lot

[65] Cote, Charlotte. Spirits of Our Whaling Ancestors. Seattle/Vancouver, University of Washington Press/UBC Press, 2010. p. 193.
[66] Sapir, *Tales of Extraordinary Experience*, 2004. p. xix.
[67] Webb, Robert Lloyd. On the Northwest, Commercial Whaling in the Pacific Northwest 1790-1967. Vancouver BC: University of British Columbia, 1988. passim; Kool. *Northwest Coast Indian Whaling: New Considerations*, 1982.
[68] Jones, *Queesto*, 1981, pp. 8, 37.
[69] Vaughan, Thomas. "Introduction." In Soft Gold: The Fur Trade and Cultural Exchange on the Northwest Coast of America, edited by Thomas Vaughan, 1-30. Portland: Oregon Historical Society, 1982.

of money catching sea otters, as well as acting as a middleman, trading sea otter pelts from Quinault with the Hudsons Bay Co. in Victoria.[70] The high value of the sea otter pelts resulted in overhunting, and although the species became protected in 1911, the population on the west coast of Vancouver Island was eliminated by 1929.[71] Sea otters have since been re-introduced to the west coast of Vancouver Island, and are now re-establishing themselves from Kyuquot Sound south to Barkley Sound, and the listing of the species has been changed from threatened to special concern by the Wildlife Act.

In the early 1850s, there were a few white traders who earned their livelihood by trading with various First Nations along the west coast of Vancouver Island, with the principal products desired being dog fish oil and animal skins.[72] One of the first trading posts was established in Port San Juan by a firm based in San Francisco, but later run by a Mr. T. Laughton, and who later took on Banfield and Francis as partners. In 1858, Banfield wrote a newspaper article, describing that the Pacheedaht made their livelihood from fishing, hunting and trading, and that the trade in dogfish oil and halibut with neighbouring tribes was particularly profitable.

The commercial fur seal hunt began in the 1870s. This proved to be another extremely profitable enterprise. Many native families earned large sums from the harvest of marine resources. In 1874, George Blenkinsop was commissioned by the Department of Indian Affairs to investigate the native tribes in Barkley Sound, near the Pacheedaht at Port San Juan. In his report, he observed:[73]

> Without any question these people are the richest in every respect in British Columbia, and were a proper disposal made of their immense gains they could furnish themselves with every comfort that they could possibly wish for. There is scarcely any limit to their resources, and it is not too much to say that each Indian could earn from their sealing grounds and fisheries at least $1,000 per ann.[74]…At present many obtain during the year from these two sources from five hundred to seven hundred dollars. I have authority for making these assertions.

Chief Queesto recalled that:[75]

> At one time, seals were a major source of meat for the people of this area. Seals were to the Indians what cows are to the white man. When

[70] Jones, *Queesto*, 1981, p. 37.
[71] Blood, Donald A. "Wildlife at Risk in British Columbia: Sea Otter." Victoria, BC: Province of British Columbia Ministry of Environment, Lands and Parks, 1993.
Pamphlet, Thomas. "A West Coast Reminiscence." Victoria BC: The Colonist, Jan. 1, 1892 p. 5, 1892-01-01.
[72] Banfield, *Vancouver Island*, 1858.
[73] Blenkinsop, George. "Report to I.W. Powell, Commissioner of Indian Affairs, by G. Blenkinsop, 23 September, 1874." Ottawa: Department of Indian Affairs, RG 10, vol. 3614, file 4105, 1874.
[74] For purpose of comparison, in 1874, Indian Agents' annual salaries were in the range of $400 - $500. Annual Report for the Department of the Interior for the year ended 30th June, 1874. Part 2. Department of Interior. Ottawa: Canada, 1875. p. 71.
[75] Jones, *Queesto*, 1981, p. 35.

> I was a boy, my father taught me how to harpoon seals from the bow of a canoe. In the old days, we would go out in 40 foot long canoes and hunt seals off Cape Flattery. My father used to take the seal pelts to Victoria to trade with the Hudson's Bay Company at their trading post. I can remember one time we caught 58 seals, using spears, because rifles were against the law at that time. My father would leave our village at two o'clock in the morning, April through May, to go seal hunting. The Hudson's Bay Company paid him $42 for each No. 1 skin, $32 for mediums, all the way down to $7 for the smaller ones. At this rate of pay, my father could make between nine and fourteen thousand dollars a year.

Eventually, due to intensive overhunting by commercial sealing fleets based in Canada, the United States, Russian and Japan, an international treaty was signed in 1911 that banned hunting of fur seals by everyone except native Indians, north of 30 degrees latitude.[76]

Species and Use

The Pacheedaht continue to participate in a seasonal round today, although it is different from that practiced in the past due to a number of factors listed in the Cumulative Effects section below.

Throughout the vast majority of their long history, Pacheedaht ancestors enjoyed unrestricted access to the wide variety of resources in the ocean, rivers and lands in their territory. Over centuries, the Pacheedaht gained an encyclopedic knowledge concerning all aspects of their territory including its geography and resources. Pacheedaht members amassed a wealth of knowledge about their territory based on direct personal observations and experiences. This information has been continuously developed, verified and expanded as it has passed down through many generations. This wealth of information is today commonly referred to as Traditional Ecological Knowledge (TEK), and generally considered distinct from "scientific knowledge" although each can complement the other.

Pacheedaht people have harvested, and continue to harvest, the species and resources listed in the following table at locations where they are known to be abundant, accessible and/or have special qualities. These locations are recorded as traditional use and occupancy sites and are included in the TMUOS database and GIS. The Pacheedaht traditional use and occupancy sites recorded to date that fall within, or are intersected by the Study Area are portrayed on the maps presented in Appendix A.

Summary information for Pacheedaht knowledge and use of the resources and species harvested at the traditional use and occupancy sites for the Study Area is presented in the following tables. While the tables are not exhaustive, they do represent information for

[76] Murray, Peter. The Vagabond Fleet: A Chronicle of the North Pacific Sealing Schooner Trade. Victoria, B.C.: Sono Nis Press, 1988. pp. 214-216.

many of the most commonly used resources in, near or exclusive to the marine environment.

Table 1: Aquatic Birds

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
da.ẋat'č	Mallard Duck	*Anas platyrhynchos*	Ducks and other intertidal birds are hunted on beaches, marshes, river estuaries, tidal zones, and tidal flats. Ducks, particularly Mallards, are hunted at these sites while they feed on eelgrass at low tide during the winter. Offshore, Pacheedaht traditionally hunted ducks, including mallards, geese and surf scoters from camouflaged small canoes with blinds. At some locations, mallards were hunted on the rocks. Mallards tend to stay in the reeds as camouflage. Pacheedaht members continue to hunt, using guns, various types of mallards, ducks and other intertidal birds today,	Mallards were traditionally hunted at Beach Camp (in Port Renfrew), but this is no longer possible because of houses and pollution. They are now hunted near the mouths of the Gordon River and San Juan Rivers and at other locations. Traditionally, ducks were caught with bird nets. The inner bark from cottonwood was twisted together with yellow cedar to make a strong twine, used to fabricate duck nets that were erected along flight paths. Mallards were eaten and the feathers were used in pillows and mattresses.
kuxʷwa.š	Surf Scoter	*Melanitta perspicillata*	Scoters are hunted in the Gordon River estuary when the river is frozen, and while ducks are feeding on shellfish, marsh vegetation, and sea grasses.	Ducks tasted different after eating fish all summer long. They could be caught in the winter months in volume enough to make soup for the entire band, a favorite food at feasts and other communal events.
ca.pid	Common Merganser	*Mergus merganser*	Mergansers are hunted in the estuaries of the Gordon and San Juan Rivers and elsewhere.	Hunted with above-water nets, made of stinging nettles; the nets were rigged with weights so they would fall on a ducks in flight
tipi.ẋ	Bufflehead Duck	*Bucephala albeola*	Buffleheads seek refuge in the calm inlets and bays, such as at Port of San Juan and Sombrio. They feed on the crustaceans and mollusks at low tide during the winter.	Traditionally, Pacheedaht hunters camouflaged their canoes to get near enough to shoot the birds with bow and arrow. The arrow was specially crafted for duck hunting. It consisted of a red cedar shaft about 6 ft. long armed with a V-shaped head made of two points of split antler or deer-leg bone. The bow was made of yew, strengthened by a tapered ridge down the outside. Today, Pacheedaht hunters use guns.
	Common Goldeneye	*Bucephala clangula*	Goldeneyes frequent the bays in wintertime, and are also hunted in the estuaries of the Gordon and San Juan River.	Used for winter food, and for their feathers.
ha.daq	Goose (Brant)	*Branta bernicla*	Brant Geese winter in Pacheedaht territory. The geese feed on eelgrass and other foods at low tide during the winter. They move to saltwater areas when the rivers are frozen. Geese are not commonly harvested today.	Hunted at the estuary of the Gordon River, and in the marsh of the San Juan River during winter low tides. Shared throughout the Pacheedaht community as a winter food source.
quaup	Trumpeter Swan	*Olor buccinator*	Swans stop in Pacheedaht territory during their winter migration south, and find bays and coves where they eat and rest. Swans are not commonly hunted by the Pacheedaht.	Hunted at the estuary of the east bank of the Gordon River while they fed on the eel grass on the marshland; when the river froze it confined the swans to the salt water estuaries and made them an available food source in winter.
hatu.badi	Whistling Swan	*Olor columbianus*	During the 1940s hundreds of Whistling Swans stopped in the estuaries of the Gordon and San Juan Rivers to rest during their southern migration.	Food source during winter months.
	Spruce Grouse	*Falcipennis canadensis*	Grouse are hunted during winter low tides when the rivers are frozen, when the grouse are feeding in the marshland to the west of Gordon River.	Used at a food source in winter.
	Rufous Hummingbird	*Selasphorus rufus*	Frequent visitors to the coastal flowering berry bushes during the spring and summer months.	Snail slime was put on Indian paintbrush to catch hummingbirds. Hummingbird skins were used in making ceremonial hats and other regalia.

Table 2: Coastal Mammals

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
buwač	Coastal Deer	*Odocoilius hemionus columbianus*	Traditionally, Pacheedaht hunted deer along the Sombrio River, near Minute Creek, Parkinson Creek and along other creeks and rivers. There are also many sites up the San Juan and Gordon River estuaries that were accessed by the coast via canoe. Pacheedaht hunted deer in an area adjacent to Trisle Creek until about 1993 when too many hunters began to use this area. In the 1930s, deer were hunted at Walbran Creek and in the Walbran Valley and in many locations along beaches. Today, most deer hunting takes place in areas accessed by vehicles along logging roads, or along shorelines by boat.	Deer were traditionally hunted for meat, hides, and tools that were made from the bones. Usually only male deer are hunted. Deer were hunted in the winter for immediate consumption. Deer were and are hunted in Pacheedaht territory, particularly along waterways and beaches; intertidal areas and along rivers is where they stop to drink and graze on estuary grasses and seaweeds. Deer meat is shared amongst community members and for use at potlatches, feasts, funerals and other ceremonial occasions. Pacheedaht also traded deer meat with local farmers for produce such as vegetables, beef, pork, eggs and milk. Deer meat is valued as it provides variety for a primarily fish and seafood diet. Drums are made from deer skin. The skin is first buried in the ground until the fur falls off, then stretched and pinned, sewn or tied onto wooden rings of different sizes to make the desire shape for drums. Deer skins were previously tanned for rugs and also used to make shoes. Skins were also traded. Deer hooves are used for making rattles for dancing, antlers were carved into crochet hooks and sewing needles, awls, and herring dressing knives were made from deer ulnas. Jewelry was made from deer teeth and horns.
ƛ̓u.dup	Roosevelt Elk	*Cervus canadensis roosevelti*	Traditionally, elk were hunted by herding them from the edge of the San Juan River into Box Canyon where the best animals could be selected for harvest. They were also hunted near a series of deep pools on the San Juan River Estuary when they came to lower elevations during the winter. Today, Pacheedaht hunting of elk is carefully managed; those Pacheedaht members wishing to participate in the elk hunt must prepare a detailed hunting plan, and describe how the elk will be shared throughout the community. Only a limited number of elk are harvested as dictated by a management plan.	Traditionally, young Pacheedaht men participated in the elk hunt as part of their initiation as warriors. Wearing wolf skins and wolf heads, young men ran along the river and chased elk into the Box Canyon where prime animals were selected for harvest. Elk were used for various purposes. The skins were an important trade item, and fashioned into armour, and the antlers were used to make salmon spears, seal spears and whaling harpoons valves. Elk horn was also fashioned into three-pronged spear for catching sea urchins. Previously, elk meat was eaten smoked or it was traded for farmer's produce such as vegetables, beef, pork, eggs and milk. Today elk can only be hunted by the Pacheedaht, and the yearly quota is much anticipated and distributed to community members. There are resident local herd that drink and feed on estuary grasses and intertidal seaweeds.
buvubuχqʷ	Black Bear	*Ursus americanus vancouveri*	Bear were hunted near a series of deep pools on the San Juan River. They feed in the intertidal zone during the low tides during the summer, consuming crustaceans, mollusks, and urchins when they are exposed on the shoreline. Bear have not been hunted in recent times.	Pacheedaht hunted bears for to provide meat for the handicapped and elderly. Bears were hunted in the fall or during mild winters. They were killed in deadfall traps or with rifles and shotguns. The deadfall traps were made from alder wood; these were set near salmon streams, such as around Harris Creek, along trap lines or bear trails. The trap was baited with a salmon laden with eggs. The deadfall trap was weighted above with rocks and a pole with a trigger was attached. When the bear grabbed the bait the pole fell down and broke the bear's neck, and killed it instantly. Bears were butchered and skinned at the hunt site. Fat was later rendered from the animal to use for cooking or to waterproof boots. Bear meat was eaten smoked, boiled or cooked in a barbecue fashion. The meat was also preserved by canning. Bear meat tasted best after the animals had eaten fruit rather than fish. Some Pacheedaht ate bear meat only in lean times. Traditionally, bear skins were traded, sold, or made into coats and moccasins. These garments were used in while hunting whales and elk. Bears are frequent grazers in the intertidal zone, feeding on shellfish and crabs
qʰityaʔt	Mink	*Mustela vison evagor*	In the early to mid-20th century, mink were caught along a trap line in the Port San Juan area, and in other areas. The Walbran Valley was also used for trapping mink. They were also caught along a trap line on the outer coast of Vancouver Island between Dare Point and Vancouver Point. They frequent the intertidal zone during low tides, and feed along exposed shorelines. Pacheedaht members do not currently trap mink as there is no market for their furs.	Minks were hunted using deadfall traps from February to April when the furs were thickest. Mink skins were used for trading and the pelts were sold to the Hudson Bay Company. The skins were stretched out and dried to prepare them as pelts for sale or trade. Minks have become a integral part of the intertidal ecosystem, feeding and nesting along the intertidal zone.
wa.xdi.	River Otter	*Lutra canadensis pacifica*	In the early to mid-20th century, river otters were harvested along a trap line in the Port San Juan and San Juan River area. The trap line along Port San Juan extends from Owen Point at the northwestern point of Port San Juan and runs east to the north shore of Port San Juan. From there it continues east following the San Juan River. It includes the delta between the north and south branches of this river, and eventually ends at K?i:siduk'?a? Indian Reserve No. 4. A cabin made of shakes and cedar on the western shore of Port San Juan was used when checking traps in the area. There was also a cave with a natural chimney near Thrasher Cove that was used as a campsite when trapping. There currently is not a good market for skins, so land otters are not actively trapped at the	The trapping season ran from the beginning of February until the end of April. Cold weather produced thick fur, which was highly valued. Otter skins were sold to the Hudson Bay Company and the better skins sold for up as much as $16. In addition to trapping, otters were sometimes caught in snare traps placed at otter slides. Otters frequently swim across the Gordon River near P'a:chi:da?, Indian Reserve No. 2. Otters were also caught along a trap line on the outer coast of Vancouver Island between Dare Point and Vancouver Point.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
			present time.	
ƛ'apsaab	Raccoon	*Procyon lotor vancouverensis*	Raccoons also taken along a trap line in the Port San Juan area during the early to mid-20th century. Work on the trap line was from February to April, and the trap line was worked from the early 1940s to the late 1950s. Raccoon were hunted along a trap line on the outer coast of Vancouver Island between Dare Point and Vancouver Point. There currently is not a good market for skins, so raccoons are not actively trapped at the present time.	Raccoon skins were traded to the Hudson Bay Company. Raccoon remains have been encountered at archaeological site DdSc 12, indicating a long history of use. Raccoons feed in the rich intertidal zone.
č'uč'uwaẋsɬ	Wolf	*Canis lupis crassodon*	Wolves were hunted in the Walbran Valley; they are not actively hunted at present.	Wolf skins and wolf heads were donned by hunters to frighten elk; they would herd them into Box Canyon for the kill. They were also used in initiation rights for young Pacheedaht men. Wolves play a prominent role in Pacheedaht traditional practices; a most important Pacheedaht winter ceremony was commonly referred to as the Wolf Ritual. Wolves are also considered to have a spiritual connection with killer whales; they are able to transform from wolves to orcas and back again. Wolfs often utilize low tide times for feeding and traveling.

Table 3: Shellfish

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
č'iʔic	Butter Clam	*Saxidomus gigantea*	Butter clams are collected on sand and rocky beaches at preferred locations in Pacheedaht territory. Pacheedaht families used to gather butter clams while camping in tents. Today people go out in boats or drive by car and walk to known locations where clams can be harvested.	Usually only enough clams for a meal are picked at one time. Butter clams sometimes are eaten raw as soon as they were gathered. If an abundance of clams are collected, they are shared with family, elders and friends. Today contamination and beach closures have impacted the access to harvest.
ḥičči.d	Pacific Little Neck Clam	*Protothaca staminea*	Pacific littleneck clams are collected on many beaches at preferred locations within Pacheedaht territory. Pacheedaht used to reach these areas by boat or canoe and by trails through the woods. Littleneck clams were harvested from two beaches at Snuggery Cove in the 1930s. Seafood was plentiful on the beach near the hotel at Snuggery Cove in the 1970s. Today people go out in boats or drive by vehicle and walk to locations where clams can be harvested.	Littleneck clams are sometimes found along the shore or beach after a storm. Littleneck clams were also collected and eaten near the north shore of Port San Juan when fishing for octopus. Clams are generally collected in sacks or buckets and eaten raw, steamed or made into clam chowder.
	Pacific Razor Clam	*Siliqua patula*	There used to be 5 beaches in Port San Juan alone that are reported to be have been good sources for Pacific razor clams. Before logging began, the beaches at Beach Camp were used for harvesting razor clams. Razor clams were also plentiful on the north shore of Harris Cove, but are no longer harvested there because of possible contamination from the sewage treatment plant. Pacheedaht frequently collected razor clams on the northwest shore of Port San Juan at low tide. While some of the razor clam sites have been degraded, others are still good sources.	Pacheedaht people generally collect about two 5-gallon buckets of clams at a time. As an important intertidal resource, razor clams were managed carefully in traditional times. After harvesting, a beach is left alone for much of the year to allow the clams to regenerate. This is a common practice for resources that can be affected by over-harvesting. Today, it is difficult to manage clam beds as people other than Pacheedaht also harvest clams at these locations.
ʕibi.d	Horse Clam	*Tresus nuttallii, Tresus capax*	Horse clams were collected in Snuggery Cove before the construction of a breakwater in the 1950s. After the breakwater was built, the abundance of seafood in this are seems to have diminished. Pacheedaht people continue to collect horse clams at other locations.	Clams used to be dried in the sun to preserve them, and saved for winter stores. Today, they are usually eaten while fresh.
	Mya Clam	*Mya arenaria*	The Mya clam, soft-shelled clam, is native to Atlantic waters. In recent times it has become an invasive species of the Northern Pacific Ocean, including Pacheedaht's traditional territory.	This species of clams has established itself in the same locations as traditionally eaten clams, and therefore is harvested and prepared with similar methods.
	Pacific Geoduck	*Panopea abrupta*	Pacific geoducks are collected at several sites in Port San Juan, and at other beaches in Pacheedaht territory. Geoducks were collected between Snuggery Cove and Beach Camp before the breakwater was built between the government wharf and at Beach Camp in the 1950s; the amount of seafood available in this area has decreased since the construction of the breakwater. They were also gathered from the east bank of Gordon River but are no longer present at this location. Geoducks are still collected today.	Sometimes the Pacheedaht harvested geoduck clams when they washed ashore after a storm. The clams were shelled and crushed for crab bait, or can also be ground up and eaten. The shells were also thought to have talisman traits for good energy due to their large size. Razor clams and geoducks were plentiful on the north shore of Harris Cove but are no longer harvested there because of concern regarding the sewage treatment plant. Geoducks continue to be collected although not currently available at sites in Port San Juan where they were previously abundant.
ƛ'uč'a.ʔb	California Mussel	*Mytilus californianus*	Pacheedaht territory is renowned for its quality of California mussels, and they are collected at many locations along wave-exposed shorelines. Pacheedaht collect California mussels along Botanical Beach and would walk or boat from Port Renfrew to harvest them. California mussels with barnacles on them are collected in the Hammond Rocks and other areas within reach of boat from Port Renfrew, and are collected in quantities for distribution throughout the community. Some stretches of shoreline have been used for gathering shellfish including California mussels for generations. It is reported that the largest mussel shells on the coast could be found on a reef near Owen Point. These rare large specimens were highly prized, as they were considered ideal for making harpoon blades. According to one source, whalers from as far as Clayoquot came to these rocks to collect mussel shells for their harpoon blades. Traditionally, at low tides during the summer, the Pacheedaht people were able to reach from a canoe and pry mussels from the reef. Pacheedaht also gathered	A rock southeast of the mouth of Kulaht Creek was used as a source for large mussel shells, which the Pacheedaht used as blades for their whaling harpoon heads. Large mussel shells were ground on sandstone and shaped into harpoon heads, chisels, spears, points for digging sticks and parts for bows. The powder residue from ground shells was collected and stored in small baskets. It was later used as a talcum on the legs to keep them from chafing when making nettle twine or other articles. Chisels made from mussel shells were strong enough to chop down yew trees. The mussel shells were filed to a point, then oiled with dogfish, seal or whale oil over a period of two years in order to make a whale harpoon blade. A supply of these modified shells had to be kept on hand since points needed to be changed after every few uses. The mussels were split open with a knife but not cooked because it would weaken the shell. Mussels were also collected and steamed, or used as bait when fishing for greenlings

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
			large California mussel shells near Kellet Rock, Logan Creek and Bonilla Point. Bonilla Point can be accessed by canoe or boat today and is identified as one of a few places on the outer coast where one can anchor and land without difficulty. Pacheedaht members continue to harvest mussels here and at other preferred locations.	
k'učup	Blue Mussel	*Mytilus edulis*	Blue mussels are a favored traditional food for Pacheedaht people; large quantities of mussel shells appear in middens at archaeological sites. When traveling by canoe or car, Pacheedaht people used to stop at the beach near the mouth of the Jordan River to collect and eat small mussels. This area was used for mussel collecting from 1930s until the stock became depleted in recent years. The shoreline extending from Woods Nose south to Botanical Beach has been used extensively for collecting mussels and other seafood. Shellfish harvesting tapered off here after Botanical Beach Provincial Park was established in 1989, but has recently increased again. Pacheedaht went to Baird's Beach on foot in the past, and more recently by boat. Prior to construction of the breakwater in the early 1950s, the beach at Snuggery Cove was a also a good source of mussels. Pacheedaht gather mussels at low tide from locations such as the rocks in the bay at Thrasher's Cove at other locations spread throughout Pacheedaht territory.	Mussels were pried off of rocks, usually at low tide. Some Pacheedaht picked mussels at any time of the year while others gathered them only at certain times of year. The mussels used to be put it sacks for carrying when collected; today people tend to use totes. They are often eaten immediately or steamed. Traditionally, mussels were cooked in pits in the sand and steamed or boiled until the shells opened. Often mussels with barnacles on them were selected for eating and they were both cooked at the same time.
cə̓ʔi.daw	Gooseneck Barnacles	*Pollicipes polymerus*	Gooseneck barnacles are collected at specific locations along the marine shorelines in Pacheedaht territory, and they remain a favorite food.	Gooseneck barnacles are picked off the rocks and eaten immediately or they are steamed. Their habitat is concentrated in exposed sites, in very specific environments. The barnacles are generally collected in large quantities for distribution to elders, family and throughout the community and for eating at community gatherings.
k'ibsik'a.t	Acorn Barnacle/Giant Barnacle	*Balanus glandula*	Acorn or Giant Barnacles were traditionally gathered at preferred sites in Pacheedaht territory, and continue to be collected and eaten today.	Barnacles were sometimes cooked by placing them on the fire while still attached to a rock. This allowed the barnacles to separate from the rocks. Presently, mussels with the largest barnacles on them are collected. The mussels and barnacles are boiled together until the mussels open. The barnacles are easily pulled off the mussels when cooked. The insides of the barnacles are then picked out with a toothpick or other implement, and then eaten.
cɬ̓.daχtp	Black Katy Chiton	*Katharina tunicata*	Black Katy chitons, commonly called "rock stickers," are collected from the rocks at low tide, and generally collected with a variety of other seafoods such as urchins, mussels and barnacles.	The Pacheedaht harvested chitons and other seafood at Botanical Beach and cooked them in sand covered pits on the beach. This area of particular species richness has been designated as a provincial park, and this area remains a favored area for harvest. Many other preferred chiton harvesting areas that are accessed by boat. Chitons are eaten raw or steamed. Today elders favor this seafood and request that harvesters collect quantities for them.
pʼaɬa.ʔb	Giant Gumboot Chiton	*Cryptochiton stelleri*	Giant Gumboot Chitons are commonly called "rock stickers" and are collected in the same fashion as the black kay chitons. They continue to be collected from specific harvesting areas and eaten today.	The chitons are pried off the rocks at low tide and were sometimes broken open with a rock and eaten raw. They are sometimes also eaten raw after being soaked in fresh water overnight. The giant chitons used to be steamed in sand pits; some people boil them in water with salt for a few minutes before eating them.
	Black Leather Chiton	*Katharina tunicata*	Black leather chitons are collected in the same fashion as the black katy and gumboot chitons. There are preferred harvesting areas along Pacheedaht territory.	They are pried off the rocks there and eaten raw or boiled. Chitons encrusted with barnacles are sometimes boiled together.
ʔapxʷsiyʼ	Northern Abalone	*Haliotis kamtschatkana*	There were specific intertidal locations in Pacheedaht territory where abalone could be collected at the lowest tides by prying them from the rocks. They are not currently collected as they have been over-harvested primarily by commercial divers.	Pacheedaht people used to walk along rocky shorelines at very low tides looking for abalone. Abalone are reported to have been plentiful in the past, but they are not being harvested now until the stocks have been restored. Abalone are removed from their shells, beaten and fried, or boiled. Their shells are also used in jewelry, and to inlay in carvings.
	Limpets	*Tectura persona*	Limpets were traditionally during intertidal harvests of shellfish in areas where chitons were collected. They are commonly referred to today as china hats, and are consumed with other shellfish.	Harvested by prying off of rocks and previously steam cooked in traditional cooking pits. They are steamed in more recent times.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
ƛala.ʔub	Cockle	*Clinocardium nuttallii*	Pacheedaht people collect cockles at specific beaches in or near Port San Juan. They are sometimes collected after a storm when they wash up on the beach at low tide, or as a by catch in traps.	Eaten fresh or steamed, traditionally steamed in cooking pits.
	Oyster	*Ostrea conchaphila* *Crassostrea gigas*	Oysters are collected on some rocky shorelines, and are difficult to pry from the rocks. Their availability has been limited, as the traditional harvesting grounds of Botanical Beach is now a provincial park.	Oysters were traditionally smoked for winter storage, but are usually eaten raw or steamed when collected recently.
ḥi.xʷa	Whelks	*Nucella lapillus* *Thais emarinata* Dentalium pretiosum	Whelks were described in interviews, as well as being present in shell middens. The Dentalia species was most commonly traded for, but were found occasionally in the Pacheedaht territory. They were harvested within the intertidal zone at low tide. They are not commonly harvested, but would be collected among other shellfish while seafood gathering.	Whelks would be eaten raw, or steamed among other shellfish. Dentalia shells were very valuable, and highly sought after. They were most commonly found in northern portions of the west coast of Vancouver Island, and traded to the Pacheedaht. The shells were then exchanged to the Makah, south the California, and across North America. They were used in jewelry, and were an essential element in coming of age ceremonies for young women.

Table 4: Subtidal Species

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
k'u.cay'	Urchins (general)		Sea urchins or sea eggs are a traditional food that is harvested at many locations along the coastline in Pacheedaht territory, and are favored seafood for many Pacheedaht people. There are many beaches and rocky shelves in Pacheedaht territory where urchins thrive.	Pacheedaht collected sea urchins in tidal pools at the beach in the past from May until September. Sea urchins remain a favorite seafood and are gathered for elders other community members often by younger people at many places on the coastline. They are usually eaten shortly after being harvested, and sometimes large quantities are brought in for gatherings or ceremonial purposes. The urchins are picked from the rocks, cracked open and eaten raw or fried in butter
	Giant Red Sea Urchin	*Strongylocentrotus franciscanus*	See Urchins (general), above.	Giant red sea urchins were gathered for immediate consumption and for large gatherings or ceremonial purposes. The urchins were picked off the rocks, cracked open and eaten raw or fried in butter
	Purple Sea Urchin	*Strongylocentrotus purpuratus*	See Urchins (general), above.	This species was more readily available at low tides. Purple sea urchins were gathered for immediate consumption and for large gatherings or ceremonial purposes. The urchins were picked off the rocks, or speared with specialized implements. They were then cracked open and eaten raw or fried with butter.
	Green Sea Urchin	*Strongylocentrotus droebachiensis,*	See Urchins (general), above.	Sea eggs were harvested from green sea urchins and eaten fresh.
hasa.ʔbc	Red Rock Crab	*Cancer productus*	Red Rock crab are caught in several locations in Pacheedaht territory.	Pacheedaht used to, and still use various methods to catch crabs. Crabs can be caught in seine nets while fishing for salmon, flounder or other fish. Crab traps were placed in coves or in other known crabbing locations. Geoducks were sometimes crushed and used as bait in a crab trap. Crabs were previously also speared from a canoe or off the rocks at low tide. This was done using a pole with two or three sharp prongs, nails or a file attached to the end. The poles were often made from spruce or fir wood. Pacheedaht also dove used to dive into the water about ten to fifteen feet down, searching for crabs among the rocks. The crabs were caught by hand and thrown into a canoe or boat. Crabs are harvested year round. Usually the males were selected for their size
hasa.ʔbc	Dungeness Crab	*Cancer magister*	Dungeness crabs were found at a variety of sites within the Port of San Juan. Fisherman would either dive or set out crab traps. This is a highly prized resource for the Pacheedaht community today, and crabs often harvested in large numbers in crab traps for community gatherings and feasts.	Crabs were eaten for daily meals or gathered for potlatches. In the past crabs were steamed, but today they are cooked in boiling water for about 15 minutes, then eaten. Pacheedaht territory is know for an abundance of crabs, and the best crabbing locations are well known and used.
	Prawn	*Pandalus platyceros*	Prawns were caught at a fishing area in Port San Juan, but have not been available in large numbers over the past few years.	Prawns were steamed or eaten fresh.
	Dock Shrimp	*Pandalus danae*	Dock shrimp were caught at a fishing area in Port San Juan, but have not been available in large numbers over the past few years.	Shrimp were steamed or eaten fresh.
	Scallop (Weathervane, Giant Rock, Smooth Pink, Spiny Pink)	*Patinopecten caurinus, Crassadoma gigantea, Chlamys rubida, Chlamys hastata*	Scallops are collected at a few specific locations within Pacheedaht territory. Weathervane scallops, valued for their shells are collected at a particular site in Port San Juan.	Weathervane scallop shells were used for making ceremonial rattles. Scallops are also eaten by being boiled or steamed.
	Humboldt Squid	*Dosidicus gigas*	Humboldt squid sometimes appear in a fishing area within Port of San Juan.	Caught as a by-catch while fishing, they are used as bait.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
tilu.p	Pacific Octopus	*Octopus dofleini*	The Pacific Octopus is caught at a number of sites with the territory, and one area where Pacheedaht caught octopi on the rocks and along the shore was at the mouth of the Jordan River. This is a well known location. Pacheedaht members would sometimes walk out to an area of octopus dens at Botanical Beach during low tide. The octopus are eaten, or used as a preferred type of bait for catching halibut.	A method, used in the past, of catching octopus was to find a den at low tide, identified by the debris of dead animals outside the den. When the den of the octopus had been located, the octopus was forced out of its den by blowing or squirting bleach into the den with a hose. The octopus could then be caught or speared. Pacheedaht often catch octopi in crab traps in the Port San Juan area. At one well known octopus den, the animals take refuge in a hole or underneath a ledge. The animals could then be pulled from their dwellings with a small pole with a hook on it and then speared with the hook or harpoon. The animals can also be pulled from their dwellings with a ten to twelve foot pole with a harpoon blade attached, and then speared. The octopi are often put in a sack so they cannot escape. Octopi are eaten or used for halibut bait.
	Pile Worm	*Nereis vexillosa*	Pile worms that grew on bay mussels were picked off the pilings at the government dock. They were also collected on the shore after storms.	Pile worms are used as fishing bait.
ti.i'daw	Sea Cucumber	*Parastichopus californicus*	Sea cucumber is available at a many locations.	Pacheedaht collect these to be eaten.

Table 5: Sea Mammals

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
k'a.ščù?	Harbour Seal	Phoca vitulina	Harbour or Hair Seals were traditionally hunted at many sites along the entire outer coastal portion of Pacheedaht territory, from Magdalena Point in the south, to Carmanah Point in the north. As a rule, harbour seals frequent waters close to shore and are seen in shallow bays and inlets to a much greater extent than are any other sea mammal. There are also sea caves in Pacheedaht territory where seals congregate, and where Pacheedaht hunters could catch the seals with nets, or herd them together for easy killing. Camps were often established near these caves for access and processing. Men would go for a week to stay and hunt at these prime seal hunting locations. Although they are not commonly hunted today, there is growing interest in the availability of seals as a resource base.	Nets made out of nettles were strung at the entrance of seal caves to keep the seals in, and they were killed with spears in the caves or at the entrances. At other locations, seals would ascend streams at high tide, and then be trapped behind a barrier as the tide ebbed. Natural cul-de-sacs were excellent hunting places, as Pacheedaht hunters could use nets to prevent the seals from escaping. Later, when shotguns and rifles were used in these caves, nets became unnecessary. Seal meat is described as being very oily and, and is not consumed as often as it was in the past. Harbour seal meat was hung for two days to let the oil drip. Seal blubber was cut up into strips with some of the fat left on. The meat was partially smoked and eventually boiled before eating. The women prepared the skins and the meat, and boiled the blubber for oil. Seal meat could be stored in wooden bins or smoked, salted and cut into strips like jerky. Seal oil was stored in a seal bladder. Once filled, the bladder was smoked to avoid leakage. Seal oil had many and varied applications. It was used medicinally as a general tonic. Salmon jerky was dipped in seal oil to soften it. Seal oil was rubbed as a preservative on spears and tool handles. Sandstone from Qala:yit Cove, which was used for weights on basket bases and as sharpening stones, was soaked in seal oil then smoked black and soaped. Burial trees were rubbed with seal oil to prevent animals from climbing the trees. Seal skins were used to make floats for whaling, and seal stomachs were used as fishing floats. Salmon roe was preserved in a seal stomach buried underground. The seal hides were also used to make drums.
k'iɬadu.s	Northern Fur Seal	Callorhinus ursinus cynocephalus	In traditional times, Pacheedaht hunters in canoes would venture 40 miles offshore to intercept the large herds of fur seals as they migrated during the spring and fall between California and the Aleutian Islands. This species is no longer abundant, but populations may return in the future with restoration efforts.	Traditionally, fur seals were hunted with a two-pronged harpoon, and their skins and meat were used for clothing or canning, or traded to other native groups. Migrating fur seals killed off Pacheedaht territory could be skinned and their hide (with 1" of fat still on) could be used as an instant coat. In the late 1800s, commercial hunting of fur seals was a major enterprise, and many schooners, stationed in Victoria, would follow the fur seals on their migration north. Pacheedaht and other Nuu-chah-nulth hunters were hired as hunters. Special sealing canoes were made to fit on the schooners. Pacheedaht men would travel up to Alaska to hunt the seals from canoes. This was a major source of income for Pacheedaht hunters for a few decades into the early 1900s. The hunting of fur seals remains a Pacheedaht right.
ti.čaq	Sea Otter	Enhydra lutris lutris	Sea otters live almost entirely in the ocean. They frequent offshore kelp beds, rocky islets, and reefs. They were hunted in bull kelp beds with the same two-pronged spear used for hunting fur seals. Pacheedaht hunted sea otters offshore from the important village of Qala:yit, now Pacheedaht IR #3.	In traditional times, sea otter was highly prized for its fur, used for fashioning various garments; the meat was also eaten. Sea otter furs became a major item of trade with European and American maritime traders during the late 1700s and early 1800s until the otters became scarce. During the late 1800s they were still hunted, and each sea otter pelt commanded a high price. Currently, there are no sea otters in Pacheedaht territory, but it is anticipated that will likely re-establish themselves within the foreseeable future.
ʔakʷa.dis	Northern Sea Lion, California Sea Lion	*Eumetopia jubatus, Zalophus californianus*	A sea lion rookery was located in a cave at Sombrio Point, and there are three other seal lion caves in Pacheedaht territory. Pacheedaht people do not currently hunt sea lions. The sea lions are a valuable species for eco-tourism and as an indicator of a healthy ecosystem.	Sea lions were hunted in a similar manner to seals, and each sea lion yielded a lot of meat and blubber.
k'ʷak'ʷa.ʔaq	Harbour Porpoise	*Phocoena phocoena Phocoena vomerina*	Shell middens have consistently shown there to be porpoise remains in areas of traditional Pacheedaht villages. Porpoises are a common sight today within Pacheedaht territory.	Dolphin meat was consumed, and processed much like that of whale blubber. The teeth and bones were likely used for tools and jewelry.
č'it'apkʷ	Whales (general)		During the 19th century, and before, the Pacheedaht village at Qala:yit, now IR #3, was a jump-off point for Pacheedaht whalers to get to the whaling grounds. Although humpback and grey whales were species hunted most often, right whales were also previously hunted. Once a whale had been killed, it was towed into Qala:yit for processing. It is estimated that the last whaling activity in the area occurred one hundred years ago. Chief Queesto Charles Jones inherited a whaling harpoon that had been used by his grandfather; this harpoon is now on permanent display in the lobby of the Sooke Region Museum. Commercial	Killing a whale was the highest honor for Pacheedaht whaling chiefs, who spent their entire lives preparing, and practicing the skills required for the hunt. Whales were usually hunted after calving in the early part of summer. Specially made whaling canoes were fashioned from cedar logs, and harpoons were made from sections of yew wood scarfed together. Young whalers trained rigorously to become paddlers and crew members, and to dive into the water to tie the whale's mouth shut after harpooning; this prevented the carcass from sinking. The harpoons were fixed with extra large mussel shell blades in traditional times, and with iron blades when these became available. Suitable mussel shells for the blades were collected from specific sites known for the largest and strongest mussel shells. Whalers from as far as Clayoquot came to obtain these

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
			whaling stations, particularly the one at Sechart in Barkley Sound, killed hundreds of whales each season until the whale population had become virtually extinct in the mid 1900s. Qala:yit village is sheltered from both easterly and westerly winds making it a suitable towing location. Drift whales were also brought in to the head of Port San Juan where they were cut up on the beach, and distributed according to traditional protocols. The populations of right and humpback whales are on the rise, and a group of grey whales has taken up residence during the summer off Qala:yit. Whalebone has been found at archaeological sites in Pacheedaht territory. The Pacheedaht logo is of a whaler and canoe in pursuit of a whale, harpoon in hand; this illustrates their identity of being whaling people.	large mussel shells for their harpoon blades. The mussel shells were filed to a sharp blade, and then rubbed with dogfish, seal or whale oil over a period of two years in order to make a strong and pliable whale harpoon blade. The blade was attached by sinew and pitch to a pair of balves made from elk bone. A supply of these modified shells had to be kept on hand since points needed to be changed after every few uses. Floats made from seal skins were tied on to the harpoon line after the whale had been struck; these impeded the whale's ability to dive, and caused it to tire. Whaling was considered a sacred activity with rigorous ritual activity that began at the hunter's birth. Whalers and their crew practiced daily activity to cleanse their spirit and bodies in order to successfully prepare for the hunt. Whale hunters conducted their cleansing rituals at shrines in secret locations. From these shrines, the whalers would be in spiritual communion with the spirits of the whales, and with their Ditidaht and Makah neighbors. Pacheedaht whalers occasionally went whaling with the Makah. More detail regarding the significance of whaling to the Pacheedaht will be included in the body of the report.
	Humpback Whale	Megaptera novaengliae	Humpbacks spend a considerable amount of time in the region during their annual migrations, and in some instances stay year round. They are often seen at Swiftsure Bank while fishing for halibut. Pacheedaht associated productive fishing grounds with the presence of feeding whales.	Whale meat was divided amongst the community, with special sections reserved for the chiefly families. The bones were often used around house platforms and serves to route water away from the houses.
č'it'apkʷ	Gray Whale	Eschrichtius robustus	Gray whales tend to travel and feed close to shore which made them an accessible species to target. They were also considered more docile than the humpbacks. Whalers hunted gray whales in the vicinity of Bonilla Point on their migration north, and they worked with the tide to tow the whales into either Qala:yit or into Port San Juan as circumstances dictated.	The meat of the whale was divided amongst the chiefs, the whalers, and the community and the hunter kept the skin and a certain part of the whale (ambergris) to sell for perfume. Whale sinew and skin was made into ropes, patching material and bags. Whale oil was an important commodity, stored in seal skins, and used as extensively as a condiment and for burning in lamps.
	Orca Whale		Killer whales were not often targeted for hunting, but they an integral part of the cultural and traditional histories of the Pacheedaht. There are both resident killer whale pods, and transient orcas in Pacheedaht territory. They are often seen migrating, and feeding in the Juan de Fuca Strait and on Swiftsure Bank.	Orcas were hunted by young whalers in order to test and improve their abilities. The killer whale is a very fast, agile swimmer, making them difficult to approach or harpoon. They are a key figure in many stories of the Pacheedaht, and an important spiritual character that was able to transform into the Wolf and emerge onto land.
	Northern Right Whale		This species was targeted, as it was slow moving, large and contained more oil than other species. The focus on this species lessened after the commercial overhunting in the North Pacific, primarily due to the ease in taking down the animal by commercial vessels, and their high oil content.	When this species was plentiful, the Pacheedaht were able to get large quantities of meat and oil without a long, laborious fight or tow. This species was reported to have tasty meat.

Table 6: Coastal Plants and Trees

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
ẋubis	Western Red Cedar	*Thuja plicata*	Harvesting of red cedar occurred throughout Pacheedaht territory, widely known for the high quality of its trees. Red cedar is light, strong, resistant to rot, and easy to split and carve. It was the wood of choice for the manufacture of most items of domestic use such as canoes, houses, cradles, masks, boxes, chests and many other items of utility. The bark of the cedar was equally important. Cedar bark was used to make clothes, rope, hats, baskets and many other items. Pacheedaht people were renowned for their carving ability and they made canoes and other items for trade. Much of the technology related to resource acquisition, processing and storage was based on cedar tools, including fishing and hunting gear, weirs, drying racks, digging tools, cookware, eating utensils and carrying equipment. Most of the utilitarian clothing, such as capes and hats, was fashioned from cedar bark. Ornamental and ceremonial house posts, masks and ritual paraphernalia were often lavishly carved.	Wood working was perhaps the most important technology for the Pacheedaht. Classes of products manufactured wholly or partially from wood include transportation, shelter, tools, and ceremonial and art objects. Much of the economy of the region depended upon watercraft to access resources and these vessels, and their accompanying bailers were made of red cedar. Cedars were carefully selected for harvesting; in some instances "test holes" were cut into trees to examine their soundness before felling. Groves of good cedar trees were preferred for harvesting. Trees were usually felled and the wood blocked out for canoes, house posts, or planks in the woods, then transported home. A prayer was always offered to the tree before felling or stripping bark from the tree. The collection and preparation of cedar bark continues to be important for Pacheedaht members. Cedar bark itself is considered to have sacred qualities, to be pleasing to supernatural spirits, and is a key element in most ritual events.
tu.xupt	Sitka Spruce	*Picea sitchensis*	Sitka Spruce are found on the coastal regions of Pacheedaht territory, and thrive along rich waterways and close to the ocean.	Spruce trees were used for tree burials. Spruce boughs were used for ritual and ceremonial purposes to cleanse the spirit – and this is specific to Pacheedaht. Pacheedaht scrubbed themselves with spruce or hemlock boughs and prayed during ritual bathing performed at secret locations. During winter dances, performers waved spruce branches at the spectators to scare them. Boughs were also a part of the costume in initiation ceremonies. Spruce wood was used for the 15 ft. to 20 ft. long poles used for spearing halibut, flounder and crabs. Spruce pitch provided a protective coating for fishing spears and heads of whaling harpoons. It was also used for repairing leaks in canoes and waterproofing baskets and implements. Pitch was also used as a medicine for cuts, wounds and boils. It was heated and strained through moss or lichen. The pitch would leach some of the medicine from the moss or lichen and the resulting substance was used as a poultice.
cībpat	Basketry Grasses	*Carex obnupta*	Basketry grass was predominantly collected from coastal areas close to Pacheedaht villages – the prime locations are well-known and continue to be important to the Pacheedaht. Pacheedaht women used the grass to fabricate beautifully woven baskets that were traded or sold. Basketry grasses are still collected, as weaving is practiced by several Pacheedaht members today. These species are found primarily within intertidal areas, very sensitive to environmental disturbances.	Pacheedaht girls were taught how to pick these grasses when they came of age. Groups of young Pacheedaht women gathered the grass with elders, walking to the grass collecting site from their village. Three-cornered grass was gathered in summer when the plants reached a certain height or when they attained the right texture for basket weaving material. It was pulled up from the roots and broken off at the base. Often Pacheedaht stayed in a small shack and preserved the grass while on site; this was done by pulling the grass through salted boiling water. It was then split and tied into bundles and hung from a tree to dry. The grass was then laid on the ground to bleach in the sun.
qicsapt, čapxʷapt	American Dune Grass	*Elymus mollis*	Dune grass was harvested at the long beach at the head of Port San Juan, on the west shore of Delta Island and at other locations. Dune grass is an important plant ecologically because it stabilizes the sand on the beach and stops erosion. It is found growing in intertidal areas, a very sensitive ecological area.	Dune grass was used as twine in tying reef nets and basket traps. Its tough leaves were used as a needle and thread for sewing and tying certain objects. The long, soft rootstocks of the grass were twisted into a rope-like bundle and the ends were tied in a knot. Young men rubbed their bodies with this bundle when bathing to cleanse their spirits and to strengthen their bodies.
k'eyicapx, le.pat	Salal	*Gaultheria shallon*	Salal berries are picked at a number of locations near to the Pacheedaht community, and are abundant at many other locations.	Salal berries are picked in July and August and eaten fresh, made into jam – in the past they were dried on skunk cabbage leaves to make a type of fruit leather. The leaves could be chewed to alleviate hunger or used to make a greenish-yellow pigment. Leaves were also eaten by newlyweds to ensure their first born was a boy. The branches and leaves were used in steam cooking.
λiλcsap (edible roots) λicsapapt (plant)	Pacific Cinquefoil or Silverweed	*Potentilla pacifica*	Pacific cinquefoil roots were collected from meadows, river estuaries, tidal zones and tidal flats. Specifically, informants indicated these roots were gathered at several locations near the Pacheedaht main village. In the past the cinquefoil roots were a highly favoured food, and a valuable trade commodity. The cinquefoil root beds continue to be prized possessions of the Pacheedaht.	Cinquefoil root collecting began around October when the plant turned orange and started to die. The roots were harvested through the winter when they had their maximum carbohydrates. It was possible to get them in spring when food was scarce, and they were an essential resource when preserved fish and other animal foods ran low. The roots were pit cooked on the beach and each woman had their special knot, which they tied the roots with to identify their food put into the pit. Three inch cooking rocks were ideal for cinquefoil roots. When cooked in this way, cinquefoil roots tasted like sweet potatoes.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
naxu. (small leaved variety), ʕeʕciy' (large leaved variety)	Wild Clover	*Trifolium wormskioldii*	Wild Clover occurs at a number of sites, and one in particular was considered a good source for the wild clover. As with the cinquefoil, the clover roots were a traditionally favoured food. Wild Clover is still valued today as a culturally important food source.	Cooked and utilized in a similar manner as cinquefoil.
ʕešipt	Stinging Nettle	*Urtica dioica*	Nettles were harvested from open areas in the forest and along the coast where there was more exposure of light. Nettle was used as food and medicine, and the fibre was fashioned into twine for a wide variety of purposes. It continues to be harvested by the Pacheedaht for various applications.	Stinging nettles were used as a medicine to make a poultice for cuts, and as a tea for a general tonic. Duck nets were made of nettle fiber spun together with yellow cedar bark and cottonwood fiber. Stinging nettle twine used as a leader for fishing halibut. Nettles were also consumed as a spring time green.
qawi.pt, č'a.w'ičk'ay, šišičqa.ʔdƛ	Salmonberry	*Rubus spectabilis*	Red and yellow salmonberries and salmonberry shoots are picked at many locations near the Pacheedaht village and continue to be a favoured food. They are found in sunny locations, and thrive in the coastal climate.	Salmonberries ripened early around the end of May or first of June, when the sockeye came. They are eaten fresh because they were too seedy and watery to be dried. Salmonberry shoots are picked during a two week interval just after the plant flowers, usually in April or May. The shoots are similar to celery and were often dipped in sugar or a sugary syrup and eaten while picking and be eaten as a treat. Salmonberry shoots could also be pit cooked, which was thought to enhance their ability to clear breathing passages.
ƛ'iχapχ, ƛ'iχapχapt	Huckleberry	*Vaccinium parvifolium*	Huckleberries are picked at picked at many locations near the Pacheedaht village and continue to be a favoured food.	Huckleberries ripened in June, after salmonberries but before salal berries. They are eaten and dried in the same manner as blueberries.

Table 7: Seaweeds, Intertidal and Subtidal Plants

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
	Seaweeds and Sea Grasses (General)		Pacheedaht collected many different varieties of intertidal plants and seaweeds throughout their traditional territory. Intertidal species were collected during the spring and summer low tides, while the subtidal species (Bull Kelp, Macro Kelp) were harvested by canoe in the summer. Pacheedaht members continue to collect seaweeds.	Both seaweeds and sea grasses were used as a food source, and often preserved for winter stores. They were dried on the rocks in the sun, and stored in cedar boxes for winter. Porphyra was the most widely consumed, served with whale oil or bear grease. The Pacheedaht began collecting Porphyra (or Nori) in the early 20th century to sell to stores in Victoria for the Chinese and Japanese communities. Other species were used for medicinal, material, and spiritual purposes.
c̓a.ypiš	Red Laver	*Porphyra perforata and other species*	Large quantities of Porphyra were collected at many sites along the coastline in Pacheedaht territory. Family groups of elders, women and children traveled by canoe to various beaches to camp, fish and pick seaweed, sometimes staying for weeks at a time. Pacheedaht members continue to collect seaweed today. This species has very high economic value on the world market as the Japanese named seaweed "nori."	Seaweed was usually picked at low tide in the spring or early summer before it became too tough to eat. The seaweed was put into sacks as it was collected and taken to shore. It was then sun dried on the ground, rocks or a log for a day or two. Some Pacheedaht ate dried seaweed by itself, or dipped in oil. Other people did not eat the seaweed but sold it to stores in Victoria for the Oriental communities. In the late 1910s or early 1920s seaweed was sold in Victoria for 10 cents a pound, and held high economic value for many Pacheedaht members.
wa.qa.t (whole plant), qa.qa.t (float or bulb), lata.bʔub (leafy fronds, human hair), sadaʔbl (fishing line of kelp), a.t (extending downwards)	Bull Kelp	*Nereocystis luetkeana*	Bull kelp is found at many places along the coastline where conditions are good for growth. It was harvested from specific places known to produce good plants. In some kelp beds the bull kelp grew from 150 to 200 feet long. It continues to be harvested by the Pacheedaht.	Bull kelp was collected by young men who were trained in deep-water diving as part of their preparation for whale hunting. The long stipes of the kelp were cut off at the base and used for fishing line. Kelp was also cut off at the base with a knife attached with a long pole or collected on the beach when it washed up after a storm. After the kelp was collected, it was laid on the roof of a house to dry. It was then rubbed with oil every few days until it was thoroughly saturated. Dogfish oil was usually used for this process because it was easiest to get and was not as edible as seal oil or whale oil. The curing process took as long as a year to complete. The line was then rolled up for storage. The fishing line was later soaked in sea water in order to make it pliable enough for use. The line did not need to be oiled after each use, but had to be soaked each time after storage. Kelp line could be used for trolling salmon and for catching bottom fish such as cod and halibut. Several lines could be joined together with a fisherman's knot. The hook was attached to the kelp line with a leader made from spun nettle fiber. Because the curing oil acted as a lubricant, the kelp fishing line was easy on the hands when hauling it into the boat. Kelp lines did not last indefinitely and eventually wore out from being hauled into the canoe or boat several times. The kelp bulb and the hollow part of the stipe were used as containers to store dogfish oil, whale oil, or seal oil. More recently the kelp bulbs were used for storing molasses. The containers were usually about one half metre long and they were dried before use. The bulb of the kelp was also dried and used a mould for skin cream made from the fat of a deer. The fat was mixed with the aromatic resin of cottonwood buds or pine pitch and poured into the kelp bud to harden. The kelp was then peeled off leaving a bulb-shaped piece of tallow to be used to protect the face from the elements. Bull kelp was also used in making halibut hooks. The hooks were carved from the knots of trees such as hemlock. The knot was halved or quartered lengthwise, each piece carved to the correct proportions and then several were inserted into a kelp bulb a little longer than the knot sections. Water was put in the bulb and it was plugged with a piece of wood or moss. The kelp was then buried upright in hot sand next to a fire. It was left there overnight and the knot was removed from the kelp bulb the next morning. The knot was then bent into a hook shape using a mould and later left to cool and dry. The leaves of the bull kelp were used to cover fish and keep them from spoiling or drying while out fishing. Bull kelp also provided a habitat for herring spawn, sea urchins, abalone, salmon and other marine life. Pacheedaht picked the kelp and peeled off the herring eggs which were later dried or preserved in brine. Herring eggs were usually harvested in March. Sea urchins and abalone were plentiful where bull kelp grew. Salmon traveled close to the shore in the thick bull kelp and Pacheedaht set fish traps in the kelp.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
taba.x	Eel Grass	*Zostera marina*	Eel grass was collected at rocky beaches during low tides. The best harvesting grounds were on the outer coast of the territory.	Eel grass was used in the manufacture of lead gates on each side of a reef net, to guide salmon into the nets. It was bright green and eaten fresh with seal or whale oil. The eel grass was harvested by twisting a pole around the leaves. The base of the leaf stems and roots were also eaten. The white fleshy rhizomes of the eel grass were pulled from the roots at low tide in spring. They were often eaten on the site. In earlier years they may have been dipped in oil. Mallard ducks, Brant, and geese feed on eel grass and other foods at low tide in the winter. Eel grass is also a habitat plant for herring spawn.
taba.x, di.ʔdikʼʷapt	Scouler's Surf Grass/ Torrey's Surf Grass	*Phyllospadix scouleri/ Phyllospadix torreyi*	Collected at low tides in areas where seaweeds were collected.	Herring spawn was collected from the leaves of Scouler's Surf-grass. The leaves were harvested and dried with spawn on them. They were then soaked in water and the spawn were pinched off the leaves and eaten. The leaves of Torrey's Surf-grass were dried and split for use in basketry. Herring spawn was also collected on these leaves
pu.pu.xʷiyʕa. ("a lot of blown up things on rocks")	Bladderwrack	*Fucus gardneri*	Harvested in intertidal areas during the early spring and summer. This species grows in the upper intertidal and was readily available for use. The fronds were cut off and collected for use. Bladderwrack is not commonly harvested today, but is sometimes used as a medicine.	Bladderwrack was harvested used fresh or dried by the fire. Whalers rubbed themselves with this plant to bring luck and success in the hunt. A pregnant woman also rubbed her body with bladderwrack if she wanted to give birth to a whale hunter. It was also used as a poultice for burns or wounds. Bladderwrack is an excellent habitat plant for crabs and small shellfish. Bladderwrack was referred to as firecrackers because it would pop when dried and stepped on, or explode when thrown in a fire.
ƛʼoʕqʷapt	Leafy Kelps	*Hedophyllum sessile (bubbly), Laminaria groenlandica (smooth)*	Leafy Kelp was harvested at low spring and summer tides and deposited in herring spawning areas for collection of herring eggs. Leafy Kelps are not commonly harvested by Pacheedaht today.	Herring deposited their spawn on both the bubbly and the smooth varieties of leafy kelp. The spawn were either peeled off the leaf fronds and eaten fresh or left on the algae and dried for later use. The smooth type of kelp was preferred for harvesting herring spawn because the spawn was easier to peel off.
ɬucɬucpt	Short Kelp	*Lessoniopsis littoralis*	This species was only harvested during low tides in extremely exposed outer coasts. The fronds would be harvested and used fresh or dried. Pacheedaht do not commonly harvest this species today.	Pacheedaht made a salve from burned strips of short kelp and sea palm. The salve was rubbed on the spines of young boys to strengthen their bodies.
ɬucɬucpt	Sea Palm	*Postelsia palmaeformis*	Sea palm grows along headlands, and on rocky points in exposed sites. This species was accessible by boat during low tides. It would be cut off and harvested and prepared in a variety of ways. Sea palm has become more rare, and with limited coastal access, it is not commonly harvested today.	Pacheedaht made a salve from the stipes of the sea palm by drying them in the summer, then burning them, powdering the charcoal, and mixing it with raccoon bone marrow. Newborn babies who were going to be whalers were rubbed with charcoal from sea palm to make them strong and resilient. The plant was burned and the ashes were rubbed on the face of a person having convulsions. Sea palm ashes were also mixed with water and taken for a medicinal purpose.
cə̓a.ypiš	Sea Lettuce	*Ulva lactuca*	Sea Lettuce was harvested in similar areas as Porphyra. It thrives in rocky upper intertidal areas, especially in areas with fresh water flow. It was harvested in spring by tearing from rocky substrate. Pacheedaht are not actively harvesting sea lettuce today.	Green algae is an indicator of the arrival of salmon up the creek after the first fall rains wash the algae away. Also eaten or dried for winter use.

Table 8: Fish

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
	Salmon (general)		Salmon are a fundamental feature of Pacheedaht culture and economy, and have been for many centuries. Traditionally, Pacheedaht people harvested salmon in large numbers by means of traps and weirs in the major salmon bearing rivers and streams in their territory. They were also harvested at many offshore locations, generally appearing annually in the following order: sockeye, Chinook, Coho, chum and pink.	The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. When the proper time came, each of the chiefs directed that traps and weirs could be assembled at the most productive locations to maximize salmon harvesting. Many salmon were smoked and processed as a staple food during winter. Although the San Juan and Gordon Rivers were the major salmon rivers in Pacheedaht territory, other rivers and streams supported salmon runs, including the Jordan River, Sombrio River, Logan Creek, Camper Creek, and others. Most salmon rivers and streams have been severely degraded due to industrial forestry, hydro, mining or other development activities. Currently, salmon remain a most important resource for Pacheedaht members, and are fished and harvested by many Pacheedaht people individually at many locations, and communally during community fishery events.
biʕa.t	Sockeye Salmon	*Oncorhynchus nerka*	Sockeye salmon are a favored species of salmon for Pacheedaht members, and were traditionally caught in weirs and fish traps in the San Juan River system and offshore; they continue to be fished and are most important for community members. While the numbers of fish available has declined in recent years, sockeye remains a preferred species of salmon.	The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. Sockeye are the earliest salmon species to spawn, and traditionally brought a welcome and abundant source of food in the early summer. Today, they are caught offshore during the summer, and occasionally caught in community fisheries in the San Juan River. Sockeye salmon can be eaten fresh by barbecuing or taken home and kept for three or four days. Sockeye can be smoked, salted, canned or cooked in coals, and some are half-smoked. Sockeye is considered the best fish for canning. A run of sockeye salmon ascends the San Juan River to spawn in Fairy Lake and also up Renfrew Creek. This run has been severely impacted by the degradation of the San Juan River, by industrial forestry activities primarily. Pacheedaht Fisheries is actively engaged with other agencies in attempting to restore this run of highly valued fish. The sockeye run in the Jordan River has been completely destroyed by industrial and hydro activities.
cuwit	Coho Salmon	*Onocorhynchus kisutch*	Coho salmon are also a favored species of salmon, were traditionally the most plentiful, and were caught throughout the marine portion of Pacheedaht territory. They were especially abundant during August and September. Coho spawned in both the Gordon and San Juan rivers and although the rivers have been much damaged from industrial forestry operations, the coho run in the San Juan River system is relied on by most PFN community members for an annual supply of fish. The coho run in the San Juan River is eagerly anticipated each year, and many PFN community members participate in the harvest of the fish.	The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Coho spawned in both the Gordon and San Juan rivers and supplied the Pacheedaht and other First Nations with ample supplies of fish. These rivers have been compromised from industrial operations, but the Coho run in the San Juan River is still relied upon for Pacheedaht's annual supply of fish. Coho also appeared and were harvested in Jordan River, Tom Baird, Camper, Logan and other creeks and rivers in Pacheedaht territory.
ča.wiɬ or sač ̓up	Pink (Humpback) Salmon	*Oncorhynchus gorbuscha*	Pink salmon were traditionally harvested after chum in the fall during late runs from October to December along the Gordon and San Juan Rivers and Harris Creek, as well as in other creeks and rivers in Pacheedaht territory. The degradation of river systems as a result of industrial forestry activities has reduced the availability of pink salmon, but PFN members still catch them in rivers as well as in the ocean. Pink salmon are currently caught at offshore locations in Pacheedaht territory, and during community fisheries events. They are still a thriving fishery of the territory, making them very valuable to Pacheedaht today.	The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Pink salmon were not traditionally a very valuable species, but with the decline of sockeye, have become increasingly sought after.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
čičk ʷa.waʔs	Chum (dog) salmon	*Oncorhynchus keta*	The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Chum salmon were abundant in several river systems in Pacheedaht territory, particularly in the Gordon and San Juan rivers, and were traditionally caught in fish traps and weirs at strategic locations in the river; they were also caught at ocean fishing banks. The rights to fish for salmon in rivers and streams in Pacheedaht territory was owned by the chiefs.	Within traditional times, and up until the availability of refrigeration, chum salmon were perhaps the most important of salmon as they preserved the longest when smoked, and so provided a reliable supply of food that would last the longest during the winter. The degradation of river systems as a result of industrial forestry activities has reduced the availability of chum salmon, but PFN members still catch them in rivers as well as in the ocean.
ča.wiɬ or sač ʷup	Spring (chinook) salmon	*Oncorhynchus tshawytscha*	Spring salmon were traditionally caught along the coast from April to June and in the Gordon River, the north arm of the San Juan River and Harris Creek from June to August; they were also harvested at other streams and rivers in Pacheedaht territory. They are currently caught at offshore locations and during community fishery events in the San Juan River system. Winter springs are a source of fresh fish throughout the winter months, and can be caught inside Port San Juan.	The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. The salmon populations in the rivers and streams were carefully managed; no fishing was permitted each season until sufficient stocks had ascended the river to ensure future returns. Chinook salmon do not preserve as well as other salmon species, so are not smoked as often as other species.
qiw.aχ	Steelhead	*Salmo gairdneri*	Steelhead were traditionally caught in the Gordon and San Juan Rivers, the Sombrio River, until it was damaged by mining activity, and the Jordan River, until it was damaged by the dam and mining activities. They were also caught in Kirby Creek and Walbran Creek. Some steelhead are occasionally caught in the San Juan River today, but their populations are significantly reduced.	The rights to fish in the salmon bearing rivers and streams in Pacheedaht territory were the hereditary property of the chiefs. Steelhead were caught in a number of rivers and streams in Pacheedaht territory, and were distributed to family and community members by the fishers, and given to the community dances and ceremonies. Watershed damage and ocean fishing have destroyed or diminished the stocks.
	Coastal Cutthroat Trout	*Salmo clarki clarki*	Trout were caught in the Port San Juan, Gordon River tributaries, and the San Juan River watershed. They used to be plentiful in Jordan River, but the slough has now filled in the river due to logging. The coastal cutthroat trout was also fished out at Walbran Creek. Trout are still fished today.	Pacheedaht used dragnets to fish trout and harpoons were used in swift waters, or would cast a line from the canoe. The line was fastened with a “V” shaped piece of wood on each end; the hook was attached to one end, and a small ball float to the other. Trout were eaten fresh.
ƛusibt	Herring	*Clupea harengus pallasi*	Herring and herring spawn used to be available in abundance in Pacheedaht territory. There were several locations in San Juan Harbour where herring spawn was collected by placing weighted cedar or hemlock branches, or bull kelp fronds in the ocean and on which the herring would be deposit spawn. Herring stocks have been depleted due to commercial over-harvesting and few herring now spawn in Pacheedaht territory. It is anticipated that herring stocks could recover if properly managed.	Herring balls were indicators for fishers and whalers. The herring spawn was an integral food source, collected on boughs, or seaweed fronds. It was used as well as a valuable trade resource, and has potential for future economic development. The appearance of herring, and the harvesting of herring spawn was a much-anticipated event and a sign of early spring. Herring spawn is a favourite food for Pacheedaht elders.
ɬuɬu.bi.s	Flounder (unspecified)	*Platichthys stellatus*	Pacheedaht fish for flounder on the sand bar outside the breakers at the mouth of the San Juan River. The traditional technique involved a flounder set line which is similar to a halibut set line, but made of a lighter material and smaller hooks. At least twenty hooks were set on a line. Large horse clam shells were used for sinkers and pile worms were used as bait. The line was set in the daytime during slack tide to prevent it from being washed away. Flounder were also fished with a three-pronged harpoon in the San Juan River because of the swift water. This species of fish can be caught any time of the year and is caught by Pacheedaht members today.	In the winter, flounder were fished with baited hooks as they migrated from the river into Port San Juan. In the 1940s the Pacheedaht would seine for flounder, crab and salmon at a fishing ground west of the mouth of the south arm of the San Juan River to provide for the needs of the entire band. This area was used primarily in the winter. Flounder were speared at low tide on winter nights with a pole with two sharp prongs on the end. Lamps were used to attract the fish and they were also caught with a ten foot, three-pronged harpoon, which had barbs similar to those of a straightened salmon hook. They were harpooned from boats, as they could be seen breathing under the sand. A custom three-pronged harpoon with straight metal points about a foot long and a quarter inch in diameter was used. The shaft of the spear was made from spruce or fir. The fish were attracted with a gas lamp tied to the bow of a small canoe. They were struck on the head with the harpoon and held down until they stopped moving. Seine nets were also used; the net was dragged onto the shore and the fish were divided among the community. Some Pacheedaht fished for flounder off rocks with a pole with a file on the end. Flounder is eaten boiled or fried and it can also be filleted and smoked or used to make fish and chips Pacheedaht members do not store this type of fish as it is available year round. In the past, flounder was traded to farmers for vegetables, butter, milk and pork.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
	Sole	*Pleuronectes vetulus*	Sole used to be speared at a fishing ground off the sand bars at the mouth of the San Juan River. This area has provided a wide range of fish for the Pacheedaht for generations. This place was used for fishing primarily in the winter, but also during the primary fishing season of July to September. Pacheedaht now also fish for sole at other locations, and one spot that is found by using the Walbran waterfalls as a marker.	Sole provides an ample food source during the winter, often eaten fresh. Starry flounder is fished by the Pacheedaht in estuary areas.
	Rock Fish (general)		There are many species of rock fish are fished by the Pacheedaht. Rockfish continue to be fished and monitored by the Pacheedaht; species that are listed in the table are Greenling, Kelp Greenling, Sablefish, Ling Cod, Black Rockfish, and Yelloweye Rockfish. Other rockfish utilized by the Pacheedaht include the following species: Canary, Quillback, Yellowtail, Silver Grey, Vermillion, Copper, Tiger, China, and Red Banded. Rockfish are targeted with similar fishing techniques that involved jigging around kelp forests and rock formations. They are also fished offshore at Swiftsure Bank. Pacheedaht fisheries department has become instrumental in monitoring these populations.	Rock fish provide a source of food that is reliable and available throughout the year. In the past, cod stomachs were also used to store liquids. Pacheedaht continue to fish rock fish as an important food, social, and ceremonial fishery.
	Greenling (Tommycod)	*Microgadus proximus*	Greenling are caught at many locations in Pacheedaht territory.	Greenlings were caught in decades past by casting a line with mussels for bait. A bobber was attached to the line or the line was also sunk to the bottom. Sometimes chum salmon were thrown in the water to attract the fish. Small hooks for catching greenlings were made from spruce or yew wood steamed in bull kelp bulbs. Today they are caught by jigging with contemporary fishing gear. Greenlings can be roasted for eating, but are also prepared by frying.
	Kelp Greenling	*Hexagrammos decagrammus*	Kelp greenling were caught in quantities near the former Pacheedaht winter village on San Juan Point, and today are caught in the same location as well as many other others.	Kelp greenlings are eaten fresh, either by roasting or frying.
	Sablefish	*Anoplopoma fimbria*	Sablefish was among the first commercial fisheries on the BC Coast and was previously available in large quantities. Although the stocks of this fish have been somewhat reduced, they are still caught today.	Sablefish were consumed traditionally as a fresh fish resource, and sometimes smoked. Pacheedaht are interested in pursuing this species in finfish aquaculture, as it is becoming a very valuable species on the world market.
tuška.wx̣	Ling Cod	*Ophiodon elongatus*	Lingcod were a fished from canoes by jigging a hand line. There are many lingcod fishing areas in Pacheedaht territory and they are a favoured species. Fisherman target lingcod at certain rock and reef formations.	Lingcod have long life spans, and grow to considerable size. These fish provide the community with a large supply fresh fish supply throughout the year.
wa.ʔdiɬ	Yelloweye Rockfish (Red Snapper)	*Sebastes ruberrimus*	Red Snapper or Yelloweye Rockfish are caught at many locations throughout Pacheedaht marine territory. They are mostly found at the offshore fishing location of *ʔ'uöu:ʔa:* (Swiftsure Bank). Yelloweye Rockfish are fished by Pacheedaht members today.	Red snapper was used for bait because of its bright red colour and the toughness of its skin. The skin of the jaw of a red snapper was used to bait for cod, rock fish or halibut. They continue to be eaten as a delicacy caught primarily on the offshore fishing banks; some grow to a large size.
	Cabezon	*Scorpaenichthys marmoratus*	Cabezon are occasionally caught while fishing in Gordon River, but are more commonly caught when jigging in or near kelp beds. They are currently fished for in the offshore fishing grounds of the *ʔ'uöu:ʔa:* (Swiftsure Bank) area.	These fish were not traditionally consumed, as they were thought to have poisonous flesh. In contemporary times they are a targeted fish species. This fish has a blue-coloured flesh, and it has become very valuable on the Asian market.
qit'ap	Sea Bass, Black Bass, Black Rockfish, Blue Rockfish,	*Sebastes malanops*	Fished at various sites in Pacheedaht marine territory.	Bass were typically filleted and are excellent eating when barbequed on an open fire. They are abundant around kelp forests, and when caught in large quantities are distributed throughout the community
yačaʔ	Dogfish Shark	*Squalus acanthias*	Dogfish were fished from the summer fishing station at Qala:yit, IR No. 3. There was another fishery established at a point between Jordan River and Sooke. In the latter part of the 19th century, dogfish became an important commodity for the Pacheedaht and other native groups. The oil from dogfish livers was in high demand for use in early commercial logging operations. Annual production was	Liver oil was sold to the Hudson Bay Company and other buyers in the late 19th century. The fish were caught and the oil rendered from the livers, and stored in wooden barrels for sale to buyers. The dogfish industry made significant money for the whole community over a number of decades.

Pacheedaht Name	Common Name	Scientific Name	History of Use	TEK
			between five and six thousand gallon barrels of dogfish liver oil, and commanded high prices on the market in Victoria, and at other locations in the United States. Dogfish oil was used for a variety of other purposes as well, as lubricant and for medicinal purposes. Dogfish are not a targeted species at present.	
	Sturgeon	*Acipenser transmontanus*	Caught in the San Juan River estuary, and Gordon river Estuary. Also caught in crab traps. These fish provided variety to the other species of fish available to the Pacheedaht. Although their numbers have been severely depleted due to the degradation of the San Juan and Gordon River systems, they are still occasionally seen in the rivers.	Eaten as a fresh fish source. Some fish grow to a fairly large size, and as well very old.
	Sand Lance	*Ammodytes dubius*	Found in two major gathering areas within the Port of San Juan, they are caught by Pacheedaht members as bait for other fishing.	The sand lance typically burrows in the sandy stretches of coast within Pacheedaht traditional territory. They are a good bait fish, and there is a growing international market for their use as such. They are also a major food source for salmon and cod.
ba·daw' ***?u.?upas***	Surf Smelt Night Smelt	*Hypomesus pretiosus* *Spirinchus starski*	Smelt appear in large quantities at a number of locations in Pacheedaht territory, but most Pacheedaht members catch them along the beach near the main village at the mouth of the Gordon and San Juan Rivers. They are not abundant as previously, but still appear in significant numbers. They are fished during warm weather from April until September when the smelt spawn on the beach. In the past, smelting was sometimes a community event. Smelting parties were held on the beach and the fish were cooked over fires. Two types of smelt were, and continue to be, caught. Port San Juan is the only recorded area on Vancouver Island with a population of night smelts.	Two types of smelt were, and continue to be, caught. The larger fish, referred to as surf smelt (ba·daw') are fished during the day; the smaller smelt, called ?u.?upas, are caught at night. Bonfires were lit on the beach to attract the fish when smelting at night. At either time of day, Pacheedaht catch smelts with a dip net about 3 ft. deep. The net is attached to a frame with two parallel cross pieces attached to a pole. Smelts can be seen on the waves and the fish were scooped with the net when the waves break. The fish can be shoveled over the fisher's shoulder onto the beach or the full dip net is dragged onto the beach. Sometimes, a hole is dug in the sand to hold the fish temporarily until people put the smelts into buckets. The fish have also been caught with gillnets
	Sardine (Pilchards)		In the mid 20th century, large numbers of sardines, then called pilchards, were harvested by commercial fleets along the west coast of Vancouver Island. Pilchards were abundant in Pacheedaht territory, and used to be caught with nets in San Juan Harbour. Sardines have been relatively scarce for decades. The abundance of sardines in local waters is considered cyclical and it is likely that they will return in large numbers in the future.	The fish were prepared by having their heads cut off and they were fried for eating.
	Shiner Perch/ Red Tailed Perch	*Cymatogaster aggregata*, *Amphistichus rhodoterus*	Perch are found in the Port of San Juan, and the intertidal estuaries of the Gordon River and San Juan River. They prefer the eel grass beds, kelp forests, and other protected regions of the coast. Pacheedaht still target Red Tail Perch in the surf, and the Shiner perch inside the Port of San Juan.	They are eaten fresh.
ku.ma	Ratfish	*Hydrolagus colliei*	Caught while fishing in the offshore fishing grounds at *?'uŏu:?a:* (Swiftsure Bank)	Pacheedaht did not target this species.
t'ačk'ubc	Northern Anchovy	*Engraulis mordax*	In the past, anchovy used to go up the Gordon River and died in lakes, and fresh water potholes.	Anchovy were used as bait for fishing.
	Wolf Eel	*Anarrhichthys ocellatus*	Wolf eels are occasionally caught in crab traps and similarly were caught in the past in fish traps.	Wolf eels are not consumed as a food source.
	American Shad	*Alosa sapidissima*	Caught by trollers.	An additional food source for Pacheedaht.
	Skate	*Raja stellulata*, *Raja binoculata*	The whole sandy bottom of the Port of San Juan is an area where star skate were abundant. Skates have been caught in seine nets on the beaches near Gordon River Indian Reserve No. 2. They are now rare and not targeted.	In the past, a seine net was dragged to the shore and the catch was shared among the community. These places were used for seine fishing from summer to fall. This species is not targeted at present, as it is rare and should be conserved.

Cumulative Effects

With the establishment of the Crown Colony of Vancouver Island, the British Crown asserted sovereignty over Pacheedaht territory. Later, when British Columbia confederated with Canada in 1871, the jurisdiction for lands, resources, and other governmental affairs were assumed by either the federal or the provincial government. When the Indian Reserve Commissioner established the four Indian Reserves for the Pacheedaht between 1882 and 1894, the jurisdiction for the other portions of their territory was essentially alienated by British Columbia or Canada.

Since Contact, many developments and historic events have occurred to the Pacheedaht and within their territory that have had significant adverse impacts on their traditional rights, as well as on the land and marine portions in their territory. The potential effects of the proposed project should be evaluated within the context of these developments and events. The cumulative effects include, but are not restricted to, the topics described in summary form below; only major categories are included.

Contact, Disease and Depopulation

There are a few estimates and calculations of the Pacheedaht population prior to the census information recorded by the Department of Indian Affairs in 1881. These early references to population are summarized below:

- records from the Spanish exploration led by Quimper in June of 1790 estimated the Pacheedaht villages in Port San Juan contained 300 people. As this estimate was recorded in early summer, it is likely that many Pacheedaht people were away at other resource villages and camps, as described in the traditional seasonal round pattern summarized previously;

- in 1855, Francis and Banfield estimated that the "Nettinet" (this estimate likely references both Ditidaht and Pacheedaht) population included 800 people;[78]

- in 1856, George Gibbs estimated that the "Nitinat" people (again, likely referencing both Ditidaht and Pacheedaht) numbered 792 people;[79]

- in 1858 Banfield wrote a newspaper account in 1858 that described the Pacheedaht as numbering about 20;[80]

- in 1864, Robert Brown of the Vancouver Island Exploring Expeditions estimated the Pacheedaht "fighting men" numbered 60.[81] Writing in 1896, Brown noted that

[78] Banfield, W.E., and Peter Francis. "Correspondence: Peter Francis and W.E. Banfield to James Douglas." Victoria BC: BC Archives, Colonial Correspondence, GR 1372, file 588a/2, 1855.
[79] Gibbs, George. "Indian Population of Vancouver's Island, 1856." Victoria, BC: BC Archives MS 518, 1856.
[80] William E. Banfield. "Vancouver Island: Its Topography, Characteristics, Etc.: II the Netinett District." *Victoria Gazette*, 14 August 1858, p. 1. As previously noted, this estimate seems low compared to other observations.
[81] Brown, Robert Brown. "Journal: Vancouver Island Exploration Expedition." BC Archives, Robert Brown Collection, Add Mss 794, Vol. 1, file 16. Victoria, 1864.

Pacheedaht numbers were severely reduced due to war and the effects of the smallpox;[82]

- The first formal census, conducted by the first Indian Agent in 1881, enumerated 82 Pacheedaht members.[83]

Pacheedaht Chief Queesto Charlie Jones estimated that the Pacheedaht numbered 1,500 people or more before diseases, brought by white explorers, traders and settlers, were introduced into Pacheedaht territory.[84] A massive depopulation occurred amongst the Pacheedaht during the 18th, 19th and early 20th century, as was the case for aboriginal people in other parts of North America. There were at least eight varieties of epidemic diseases introduced to the Northwest Coast region during the first century after Europeans arrived in the region of the west coast of Vancouver Island, including smallpox, malaria, measles, influenza, and typhoid fever.[85] The first signs of smallpox having reached the vicinity of Pacheedaht and Ditidaht are reported for 1782-3, several years before the first recorded contact between the Pacheedaht and non-native explorers in 1788, and the Quimper expedition's estimate of the Pacheedaht population recorded in the summer of 1790.[86]

Although it cannot be stated with certainty what the Pacheedaht population level was at its highest point before Contact and depopulation occurred, Chief Queesto's estimate of 1,500 Pacheedaht people or more is not unreasonable. Such a level of population would require a significant level of local marine and land resources to support.

Indian Reserve Establishment

When British Columbia confederated with Canada in 1871, the responsibility for establishing Indian Reserves became the joint responsibility of the federal government and Province of British Columbia. Although some Reserves had been established by the Colonial government prior to 1871, none were located in Pacheedaht territory. An overview history of the establishment of the four Pacheedaht Indian Reserves between 1882 and 1894 was provided earlier. With the establishment of the four Reserves, these plots of land were secured for the Pacheedaht, but managed by the Department of Indian Affairs. The four Reserves comprise a tiny portion of Pacheedaht territory.

As described before, Reserve Commissioner O'Reilly attempted to reserve fishing rights in the lower San Juan River for the Pacheedaht in 1882, and the RCIABC in 1916 attempted to confirm those rights to the extent that was in their power. It appears,

[82] Brown, Robert Brown. "Journal: Vancouver Island Exploration Expedition." BC Archives, Robert Brown Collection, Add Mss 794, Vol. 1, file 16. Victoria, 1864.
[83] Harry Guillod. *Report for West Coast Agency*, 1881.
[84] Charles Jones, *Queesto*, 1981. p. 21.
[85] Cole Harris, "Social Power and Cultural Change in Pre-Colonial British Columbia," BC Studies 115/116 (Autumn/Winter 1997/98). p 51.
[86] Harris, Cole. "Voices of Smallpox around the Strait of Georgia." In The Resettlement of British Columbia· Essays on Colonialism and Geographical Change edited by Cole Harris, 18. Vancouver, BC: UBC Press, 1997. p. 18.

however, that these fishing rights were never formally acknowledged by the Department of Marine and Fisheries (now Fisheries and Oceans Canada), and have not been enacted.

Hereditary Chief Queesto Charlie Jones perspective on the creation of the Pacheedaht Reserves was published in 1981. He expressed his concern over the failure to establish Reserves at the locations of known villages.[87]

> Our reservation was established around the end of the last century. I was just a boy at the time, but I can remember my father talking about it. The reserve only included what we called our "outside villages" - those located on the seashore - because the government surveyors only went along the shoreline. So our "inside villages" were lost. My father tried to get them to change this decision, but they wouldn't do anything about it. My father went to the Indian Affairs office, and said, "Why is my village not together with our villages up the San Juan River? There are seven big villages with as many as forty houses on them scattered all along the river. Why am I going to lose all that?" "You don't need that much land," the government people told him. "The government put you in this place and gave you 112 acres for your band to live on. You will get better protection right where you are. That's the reason that the government gave you that land. You have to live on that land so that the government can protect you.

While the Pacheedaht Reserves provide a level of protection for those plots of land, the corollary effect of the establishment of the Reserves was that the other lands within Pacheedaht territory are available for pre-emption or purchase by non-Pacheedaht people, and for development by commercial or industrial interests.

Loss of Culture and Language

Pacheedaht people have endured many effects from federal legislation and policies that attempted to break the chain of traditions that keep Pacheedaht culture and language alive. Interviews conducted for the TMUOS project, and other sources, document that there has been a significant loss of knowledge transmission amongst Pacheedaht members from the late 1800s up to the present day, with most causal evidence pointing to the continuing effects of Indian residential schools and the laws prohibiting traditional cultural events and practices.

Residential Schools and Missionaries

Many Pacheedaht children were forced to go to Indian Residential Schools over many decades. In Queesto's published memoir, he stated:[88]

> "The missionaries and government discouraged us from using our own language, and made sure that all our children were sent to the white

[87] Charles Jones, *Queesto*, 1981, p. 93.
[88] Ibid. pp. 57-58.

man's schools and educated in his language and his ways."

Queesto recalled that the Indian Agent came to the village to demand that all Pacheedaht children must attend the school at Clo-oose, located in Ditidaht territory. Later, once the Residential School at Coquileetza was established, Queesto and other Pacheedaht youth were forced to leave and attend school on the mainland, or the family would be charged for keeping the child at home. There were regular attempts by the DIA to collect all Pacheedaht youth; some were able to hide during visits, or went to stay with relatives. Most Pacheedaht children were taken to the residential schools at Coquileetza, Ahousat, Kuper Island and in particular to the Alberni Indian Residential School (AIRS), which operated from 1890 to 1973. After it closed, there were 24 allegation brought against AIRS school supervisors and principals, the United Church and the federal government.[89] There were accounts of strappings and other abuse; one former employee served 11 years for more than 30 counts of physical and sexual abuse. The emotional and psychological scars carried by the victims of the Indian Residential Schools continue to be experienced by Pacheedaht members today.

Anti-Potlatch Law

After the federal government assumed jurisdiction over Indian Affairs in British Columbia in 1871, government officials began to receive complaints from department officials, agents and Reserve Commissioners in B.C., as well as from missionaries. The complaints focused on certain native customs, in particular the potlatch and the tamanawas dance. As a result, an amendment to the Indian Act was passed by the Canadian government that made both ceremonies offenses, effective 1 January 1885. Religious and social pressure was placed on the Pacheedaht by early settlers to the area, some of whom were former missionaries.[90] The initial anti-potlatch legislation was later found to be virtually unenforceable, and was rewritten as part of other amendments to the Indian Act in 1895. The anti-potlatch law was enforced, and resulted in a number convictions, resulting in native people spending time in jails. The law remained in effect, with various additional amendments, until it was dropped from the Indian Act in 1951.[91]

The banning of the potlatch had the effect of also prohibiting the related *tlukwana* rituals. These two intertwined ceremonial rituals lay at the heart of the traditional art, culture, spiritual practices, economy and customary laws of First Nations along the west coast of Vancouver Island.[92]

The central nature of the potlatch to Pacheedaht economy and culture is implicit in a traditional account related by native historian Tom Sayachapis.[93] When Tom was a boy in the mid-1800s, there were two famous chiefs: "Becomes-Ten" of Nootka Sound, and

[89] Indian Residential School Resources. "Alberni Residential School - Port Alberni." Indian Residential School Resources, http://irsr.ca/alberni-residential-school/.
[90] Godman, Josephine. Pioneer Days of Port Renfrew. Victoria: Solitaire Publications, 1973.
[91] Cole, Douglas, and Ira Chaikin. "An Iron Hand Upon the People: The Law against the Potlatch on the Northwest Coast." Vancouver/Toronto: Douglas & MacIntyre, 1990.
[92] Clutesi, George. "Potlatch." Sidney, BC: Gray's Publishing Ltd., 1969.
[93] Sapir, Edward, and Morris Swadesh. Native Accounts of Nootka Ethnography. Indiana University Research Centre in Anthropology, Folklore, and Linguistics 1. Vol. 21 (4), pt. 2, Bloomington: Indiana University, 1955. pp. 297 – 300.

Pacheedaht Chief Queesto. The traditional history relates that Queesto had gone a trip to buy oil from members of the Seaward Tribe near Neah Bay, but they attempted to drive up their prices unreasonably. Queesto performed bathing ritual throughout the following night, planning his revenge against the Seaward Tribe for their insulting behavior. The next morning, Queesto managed to trade forty of his blankets for 10 sealion bladders full of oil from a few members of the Seaward Tribe. Upon returning home to *Qala:yit*, Queesto immediately issued invitations for a potlatch to neighbouring tribes. This grand affair was attended by many tribes, with people coming from Clallam, Songhees, Sooke, Becher Bay, Makah and other groups. At this famous potlatch, in his enormous house at *Qala:yit*, Chief Queesto proceeded to humble the attending members of the Seaward Tribe, in front of his assembled guests, with an ostentatious display of his wealth, continuously fueling the house fire with their high-priced oil. Queesto announced that he had not attempted to buy the oil from the Seaward Tribe to become rich, but rather to raise his name through potlatch. Queesto then distributed many gifts to his guests, further enhancing his status and shaming the Seaward Tribe.

The last traditional potlatch ceremony that was hosted by the Pacheedaht was in the early 1900s. Potlatches traditionally lasted about 2 weeks and involved many different tribes from territories near and far.[94] Chief Queesto talked about the anti-potlatch law as follows:[95]

> The white man doesn't understand Potlatches. They're weird people. They've been running us out, trying to stop us from keeping our native way of life, from doing things the way we've always done, ever since they first came here two hundred years ago. A Chief put up a party up the coast here about eighty years ago, and when the government found out about it, they put him in jail. Just imagine, he had to serve two or three months in jail for having a party! That's ridiculous. Potlatches were against the law for many years, and the men and women were very sad about it – it was breaking the native way, the native law. The Missionaries were the ones who started the movement against the Potlatch. The missionaries would report people who held Potlatches to the government, and then the government would send a policeman to take the native away to jail.

The Pacheedaht shared specific rituals associated with the Wolf, the *tlukwana* ceremonies, as well as ritual whaling preparation, with their Nuu-chah-nulth neighbours. Two creatures, the Killer Whale and the Wolf are believed to be of the same spirit, with the ability to transform from one creature to the other as they move between land and sea. The *tlukwana* ritual incorporates a dramatic capture of high-ranking youth by those already initiated into the secret society of the Wolves. The youth were considered to have been taken to the lairs of the Wolves where they are given supernatural abilities. Later, the youths are re-captured, but now possessed of supernatural powers bestowed

[94] Charles Jones, *Queesto*, 1981, p. 821 – 84.
[95] Ibid. p. 84

upon them by the Wolves.[96] The *tlukwana* was opposed by missionaries and DIA agents, who opposed such events as they were considered linked to the prohibited potlatch ceremonies.

Other sacred Pacheedaht ceremonies involved cleansing and other rituals to prepare for the rigorous and dangerous whale hunt. Humpback whales, grey whales, and the northern right whale were the preferred species for Pacheedaht hunters, although killer whales were also hunted during training exercises to hone the hunters' agility and speed. The whaling rituals are considered highly sacred, and the details are the carefully guarded secrets of individual whaling chiefs' families.[97] Most of the cleansing and other rituals were performed at special locations where specific geographic features and other qualities exist (remoteness, supernatural power, caves, streams, lakes, etc.). Some Pacheedaht ritual and ceremonial locations are included amongst the Culture History Category sites described later.

Whaling rituals, along with other traditional native spiritual practices, were discouraged by local missionaries and Indian Agents. This, combined with the overhunting of whales through commercial whaling operations, detailed below, effectively brought a halt to the whaling rituals.

Although the Department of Indian Affairs, its officials, missionaries and others attempted to prevent the Pacheedaht from speaking their language and engaging in their cultural traditions, these remain alive today. The Pacheedaht First Nation has a Language Committee that is working with members to support and teach the Pacheedaht language The Pacheedaht are also forming a Cultural Committee to support and develop traditional cultural practices.

Industrial Logging

The forests of southern Vancouver Island have supported a thriving timber extraction industry since the late 19th century. Pacheedaht's traditional territory has been significantly impacted, starting with the arrival of Alfred Deakin in the 1880s. Deakin's company attracted the interest of local and foreign investors for the immense timber resources of the San Juan, Gordon River, and Jordan River watersheds, and in other accessible coastal regions. Many commercial interests came to stake their claims on the timber lots, and established sawmills, booming grounds, shingle mills, a box factory, and other related developments. In the 1920s Cathel and Sorenson constructed a logging railway from the main branch of the San Juan River to the mouth of the Gordon River, crossing through both IR #1 Pachena, and IR #2 Gordon River. This was followed by further railway extensions, employing steam donkey technology and logging trucks, which all expanded the capacity of exporting raw timber from Pacheedaht territory.

[96] Arima, Eugene, and Alan Hoover. The Whaling People of the West Coast of Vancouver Island and Cape Flattery. Victoria: Royal BC Museum, 2011. pp. 202-210.
[97] Arima and Hoover, *Whaling People*, 2011. pp. 58 – 64.

Major logging operations were also established at Jordan River, including a logging railway that began operation in 1907. Western Forest Products (WFP) began managing logging operations at Jordan River in 1934 and continued operations in the area until recently. Remnants of the extensive logging operations are still visible at the mouth of the south arm of the San Juan River, and elsewhere.

Many Pacheedaht members obtained jobs within the logging industry, and were often used on the open water booming grounds, as expert fallers, and as skilled brakesmen. It was common for entire Pacheedaht families to be employed by the timber companies. The Pacheedaht members were heavily relied on as a knowledgeable labor force, and maintained employment throughout the span of active logging in their territory. The high turnover rate of the logging companies, and the influx of white settlers to support the high rate of extraction, often meant that forestry operations, while productive, paid little heed to environmental values or Pacheedaht cultural sites. Accounts of cultural sites, including burial grounds, being damaged by logging operations date back many decades. For example, the community of Beach Camp, built to house forestry workers, was constructed on top of a large archaeological site. The breakwater located in Port San Juan was constructed in the 1950s to reduce the loss of logs to the open water, but has dramatically changed the intertidal diversity of the surrounding shoreline.

The continuing turnover, selling and/or renaming the logging companies, while keeping labour costs low, remained in effect into recent times. At several community meeting, Pacheedaht member Bill Jones spoke strongly about the broken promises of the forestry companies who had claimed that there would be “forests forever, and jobs forever.”

One of the most significant impacts from industrial logging has been the construction, maintenance and decommissioning of a vast network of logging roads through many portions of Pacheedaht territory. The roads have created significant changes to the hydrology of many parts of the territory, altering runoff into creeks, rivers and streams, and have also provided relatively easy access to many parts of the territory previously inaccessible by vehicle.

The effects of extensive clear-cut logging practices and associated changes in erosion patterns, waterflow regimes and depositions of sand, rocks and gravels in the streams and rivers downstream of forestry operations have resulted in significant damage to fish habitat and spawning beds. One result has been the decimation of the fish populations in the Gordon River, the San Juan River, Jordan River, and other rivers and streams.

The Gordon River, in particular Loop Creek, is reported to have gained the status in 1990 as the most heavily impacted watershed in BC. The effects of 1200 hectares of clear cuts were causing the surrounding mountains to split and slide. The Ministry of Forests, DFO, Forest Renewal BC, the timber companies, and the Pacheedaht developed an immediate plan to stabilize the degraded area. Pacheedaht members who were employed by the forestry industry were interviewed regarding the remediation program to fix the Loop Creek disaster area. They described in detail, the intensive processes used in the attempt to stabilize eroding mountains, clean up landslides, re-planting riparian areas,

and stream rehabilitation. Increased sedimentation due to logging has damaged habitat, and changed the topography of the rivers. The instability of the river structure has decimated the spring salmon, sockeye salmon, steelhead salmon, and coho salmon populations, and sedimentation problems persist today.

Also in the early 1990s, the San Juan River was identified as requiring an environmental remediation plan. The area known as Five Mile Creek is located upstream of the existing fish hatchery on the San Juan River. This project required intensive rehabilitation procedures including depositing rootballs with cranes, gluing and bolting rocks as big as cars to the streams for fish cover, removing debris with excavators, and depositing earth in washed out areas. The fish populations have slowly started to recover, mostly due to re-stocking through the fish hatchery.

Pacheedaht Anderson Timber Holdings Limited Partnership (PATH) is now the owner of Tree Farm License (TFL) 61. PATH is a partnership between the Pacheedaht First Nation and Anderson Timber. The partnership is managed by their General Partner, Queesto Community Forest Ltd.

Industrial forestry operations have occurred in many parts of Pacheedaht territory and have resulted in many significant environmental impacts. The fisheries in the Gordon River and San Juan River have suffered significant declines. The Gordon River, once an extremely productive river, is now scarcely harvested by Pacheedaht members in order to protect the few remaining fish in the river system. The San Juan River supports only a small fraction of the runs of salmon compared to previous times. The Pacheedaht's annual community fishery in the San Juan River, and at the river mouth, is a highly valued activity and resource base, and yet represents but a tiny remnant of what was once an abundant and traditionally managed fishery resource. The Pacheedaht Fishery Department is pursuing several initiatives to maintain and enhance Pacheedaht fisheries resources and opportunities.

Hydroelectric and Mining Activities

Jordan River has been known to the Pacheedaht for centuries by its traditional name *Diitiida,* and as an origin and village site for the Pacheedaht as described previously. By the turn of the 20th century, commercial interests had targeted Jordan River as a desirable location for timber and mineral extraction, and for the development of hydroelectric power for to the developing city of Victoria.

During the major construction period of the hydroelectric facilities and other developments between 1910 and 1920, Jordan River became home to approximately 1,000 workers and a significant community with a thriving local economy. Industry employees and their families settled in the area, prompting the construction of facilities to service a growing population, including housing, a community hall, a school, and a hotel. The railway built for the logging industry also served to create jobs, and to transport supplies. The construction of the hydroelectric facility at Jordan River began in 1908, and eventually included the Diversion Dam, the Bear Creek dam and two earth-fill dams that

started supplying power to the City of Victoria 1911.[98] The old hydroelectric powerhouse operated until a new powerhouse and system replaced the old facility in 1971. Engineers and other personnel resided full time in Jordan River to operate and maintain the hydroelectric facility.

The water flow passing through the old tailrace of the hydroelectric dam was used by pink and chum salmon spawning in the lower Jordan River. The newer tailrace scours old spawning beds and creates extreme fluctuations of flow downstream. Three dams have blocked the recruitment of gravel from the upper watershed, reducing the available spawning area to a few small pockets.[99]

Mining activities began in the Jordan River area in 1919 and 1920, undertaken by Cominco, who later optioned the property to different companies. In 1949 the property was optioned to Hedley-Mascot Mines who installed electrical transformers and compressors. The mine was taken over in 1961 by Cowichan Copper, who installed a mill and concentrate production system underground, and built a new access tunnel. The mine operated at full production from 1962 to 1968, and from 1972 to 1974; cave-ins at the mine occurred in 1977.[100] The abandoned mine shafts and seepages continue to deliver water contaminated with copper along the east bank of the river and through mine tailings that periodically slumps and erodes into the river. Mine tailings were also deposited in the Jordan River estuary in 1960 and 1974, and pipeline failures also resulted in tailings being deposited closer to shore.[101]

Taken in combination, development activities at Jordan River have had adverse impacts on Pacheedaht traditional occupation and activities in this area. The traditional Pacheedaht village, fishery and other resource gathering activities have for many decades been mostly unavailable to Pacheedaht members due to white settlement and the industrial developments described above. The salmon runs in the Jordan River, and Pacheedaht members' ability to harvest intertidal resources, have suffered significant adverse impacts resulting from forestry, hydroelectric, and mining developments, settlement at Jordan River, and by associated contaminants.

Park Acquisition

Pacheedaht traditional territory includes some of the most magnificent marine shorelines in British Columbia. From the Pacheedaht perspective, and unfortunate result is that the majority of these shorelines regions have been established as parks by various jurisdictions, and accompanying regulations that prohibit the harvesting of resources within the parks.

---

[98] History Book Committee. "The Sooke Story: The History and the Heartbeat." Sooke, BC: Sooke Region Museum, 1999. p. 162

[99] Wright, M.C., and Esther Guimond. "Jordan River Pink Salmon Incubation Study." Nanaimo, B.C.: M.C. Wright and Associates/Fisheries and Oceans Canada, 2003. p. 3.

[100] Sutherland, Andrew Joseph. "Sunro Copper Mine." https://www.facebook.com/media/set/?set=a.304998676270168.49590.129079040528800&type=3.

[101] Wright and Guimond. *Jordan River Pink Salmon*, 2003, p. 3-4.

Each level of government has sought control of the marine interface and secured tenures of national, provincial, and regional "parks," while at the same time providing free access to thousands of outsiders to prime resource-gathering areas within Pacheedaht territory. Consequently, Pacheedaht members are denied ready access to primary economic and food source areas.

Pacheedaht's traditional rights to access marine resources in their territory have been largely ignored by the various park regulations with established ecological mandates. These regulations significantly impact the Pacheedaht's ability to access coastal resources, practice intertidal harvesting, engage in the transmission of cultural knowledge in traditional ways, harness economic opportunities, and practice traditional resource management. The Pacheedaht are currently in negotiation with the various levels of government to reassess the implications of park jurisdictions within their traditional territory.

Federal Parks

In 1970 the Pacific Rim National Park Reserve West Coast Trail Unit was established along the old telegraph line that serviced the west coast until the mid-20th century. The park reserve includes coastal areas along the north side of Port San Juan, around Owen Point and up the west coast, extending past the boundary of Pacheedaht's territory (see Figure 3). Encompassed in this area are numerous Pacheedaht traditional use and occupancy sites, as well as the traditional Pacheedaht village and camp sites at *ʔo:yats'*, *K'adataʔs*, *Qawö adt*, and *Qala:yit*. The latter village was established as Pacheedaht Indian Reserve #3 Cullite, and was the traditional launching point for travel to the important fishing grounds at *ʔ'uöu:ʔa:* (Swiftsure Bank); the location was ideal for providing a supply of fresh fish and seafood throughout the year.

The Pacific Rim National Park Reserve boundaries extend 10 fathoms into the intertidal waterways, and do not permit access to shorelines within the Park by boat. The Park is monitored and maintained by Federal Park wardens, and by the Pacheedaht First Nation Guardian program which employs Pacheedaht members as trailkeepers during operating season. The program is acknowledged as the first of its kind, and has served as a template for other programs throughout Canada. Pacific Rim National Park Reserve receives 775,000 visitors annually, attracted by the beautiful coastline of Vancouver Island. Park regulations prohibit the harvesting of marine and other resources, although Park authorities state that First Nations members may be subject to obtaining a special use permit from the Park, harvest seafood or collect other resources within the Park Reserve. The Pacheedaht consider their aboriginal rights include the right to harvest seafood and other resources in Pacific Rim National Park Reserve.

Provincial Parks

The Juan De Fuca Provincial Park was established in 1994, and extends from China Beach to East Point at the south end of Port San Juan, including subtidal areas around East Point. There are many Pacheedaht traditional use and occupancy sites in this area, vast intertidal harvesting grounds, and many traditional offshore fishing grounds. The Pacheedaht villages of *Tɬ'eh̲ib*, *Qwa:qtɬis*, and *ɬi:x̲wa:p* are located within Juan de Fuca Park (Figure 2). The Botanical Beach area, located at the west end of the park, is

currently a heavily used traditional intertidal and seafood harvesting sites by Pacheedaht members. Botanical Beach has been an internationally acclaimed area of ecological diversity since the turn of the 19th century. The University of Minnesota established a Marine research station here in 1901 and it continued in operation until 1909. Scientists from around the world still travel to Pacheedaht's territory to study the immense diversity of marine life, tide pools, and coastal forest ecology.

B.C. Provincial Park regulations prohibit the harvesting of seafood, plants or other resources within the Park. The Pacheedaht consider their aboriginal rights include the right to harvest seafood and other resources in Juan de Fuca Provincial Park.

Regional Parks

The local government, the Capital Regional District, has also secured land tenures for coastal parklands. These include the lands at Jordan River Regional Park, which is now a tourist campground, and extending eastward to the beaches located at Sandcut Creek (Figure 3). Regional parks are monitored and regulated to encourage environmental conservation. CRD Park regulations specify that people should not remove or disturb animals or plants in their parks. The Pacheedaht consider their aboriginal rights include the right to harvest seafood and other resources in CRD Regional Parks.

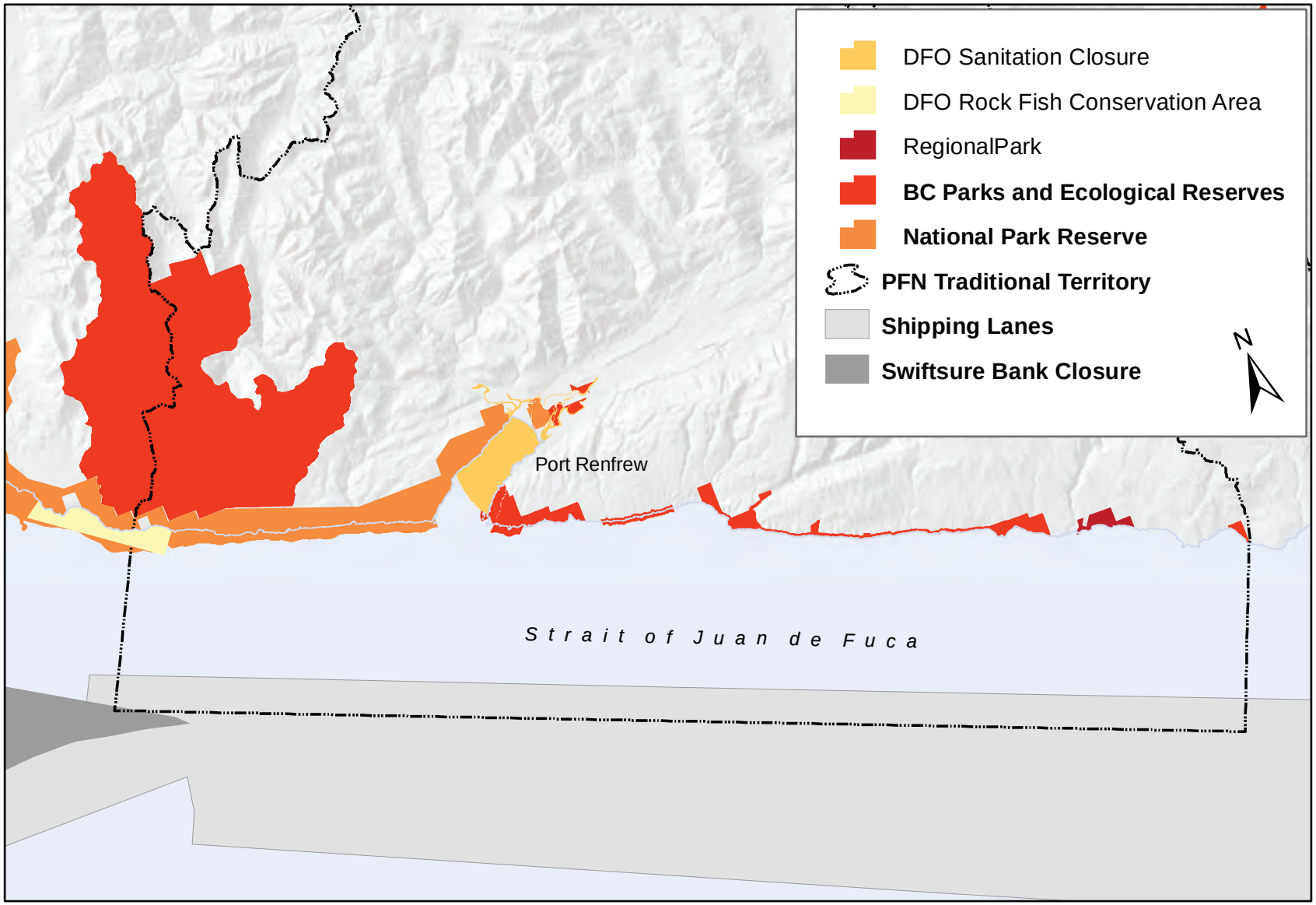

Figure 3: Pacheedaht territory showing fisheries closures, parks, shipping lanes and Swiftsure Bank closure area.

Aquatic Resource Harvesting

Since the confederation of B.C. with Canada in 1871, Pacheedaht's ability to harvest marine resources has greatly deteriorated due to government regulations and to environmental impacts.

With the 1871 confederation, the process for the establishment of Indian Reserves in British Columbia was set in motion. As described previously, the 1876 federal government instructions to the Dominion Indian Reserve Commissioner directed him not to disturb the Indians in the possession of villages, fishing stations, fur trading posts, settlements and clearings, and to avoid any sudden change in the habits of the Indians. Further, those Indians who were engaged in "fishing, stock-raising, or in any other profitable branch of industry should not be diverted from their present occupation or pursuits…"[102]

Peter O'Reilly, when he established the Indian Reserves for the Pacheedaht in the 1880s and 1890s, was operating under similar instructions to those received from John A. Macdonald, then Supt. General of Indian Affairs. He instructed O'Reilly to "mark off fishing grounds which should be kept for the exclusive use of the Indians."[103] To that end, O'Reilly established four Reserves for the Pacheedaht, all fishing stations, to secure their traditional supply of salmon. O'Reilly's Minute of Decision for Pacheedaht Indian Reserves #1 and #2 also reserved for the Pacheedaht the right to fish on both branches of the San Juan River, from tidal waters to the Forks.[104]

By 1877 the Canadian *Fisheries Act* had come into force in British Columbia. A.C. Anderson, Inspector of Fisheries for British Columbia, and also an Indian Reserve Commissioner, initially adopted a discretionary policy towards the Fisheries Act and its application to native people. However, pressure from cannery owners soon flared, and provincial officials blamed the native fisheries for the crisis.[105]

In 1878, the Inspector of Fisheries for British Columbia, wrote on the importance of fisheries for First Nations:[106]

> I have from the first been alive to the necessity of affording every protection to the interests of the natives in this important particular, and I have carefully watched, in as far as practicable, that no infringements of these hereditary rights should be permitted. The exercise of these rights, unfettered by wanton or ignorant interference, is to many of the tribes an object of prime importance, and as a matter

[102] Laird, *Instructions*, 1876.
[103] John A Macdonald, *Correspondence*, 1882.
[104] O'Reilly, *Minutes of Decision*, 1882.
[105] Harris, Douglas. "Fish, Law and Colonialism: The Legal Capture of Salmon in British Columbia." Toronto: University of Toronto Press, 2001. pp. 39-43.
[106] Anderson, A.C. "Correspondence: A.C. Anderson, Inspector of Fisheries, to Minister of Marine and Fisheries, 3 January 1878." In Library and Archives Canada. RG 10 v. 3651, f. 8540. Ottawa, 1878.

> of expediency alone, omitting entirely the higher consideration of the moral claim, their protection demands the earnest care of the government.

While initially, the *Fisheries Act* Regulations with respect to native fisheries were not fully enforced, that began to change in 1879 when a nation-wide regulation came into force that prohibited fishing for salmon without a lease or license. By 1881 this regulation began to be applied to native fishermen, preventing them from catching and selling salmon to canneries without a license. When Inspector of Fisheries Anderson died in 1884, he was replaced by other officials who were openly hostile to any native fishery and "pushed it to the margins of the industry, first by confining it to a food fishery and then by restricting the food fishery."[107] By the turn of the 20th century, "native fishing was confined on all sides. Indians could still fish for food, but that right was increasingly circumscribed, and when they attempted to join the industrial commercial fishery they were thwarted by discriminatory license restrictions."[108]

Chief Queesto personally felt the effects of the fisheries regulations. He recounted that around 1963, when salmon fishing up the San Juan River, he was observed by a game warden. Later, the police came and arrested Chief Queesto for fishing illegally.[109] He served 10 days in jail for catching one fish on the San Juan River, where the Reserve Commissioner O'Reilly had established fishing rights for the Pacheedaht in 1882.

Over the decades, commercial and sports fisheries in British Columbia have become subject to an ever increasing range of regulations and restrictions regarding licensing and practices, developed by the Department of Marine and Fisheries and its successor Ministries, now Fisheries and Oceans Canada.

For the Pacheedaht and other native fishermen, who, prior to Contact and throughout the Colonial period, had been engaged in a thriving economy based on the harvest, trade and sale of marine products, the result of the imposition of federal fisheries regulations has been severe. The federal government, on the one hand, established Pacheedaht Indian Reserves as fishing stations so that the Pacheedaht could pursue their traditional livelihood from the ocean. On the other hand, the federal government, through its *Fisheries Regulations*, prevented natives selling fish without a license, and then continually added restrictions to the licenses. In the meantime, white settlers constructed and operated a fish cannery Port Renfrew.

A recent court case, *Ahousaht Nation et al. v. Canada,* concluded that five Nuu-chah-nulth First Nations, Pacheedaht neighbours, have aboriginal rights to fish in their traditional territories and sell fish into the commercial marketplace.[110] Much of the evidence presented in that case is similar to the evidence available for the Pacheedaht,

[107] Harris, *Fish, Law and Colonialism,* p. 60.
[108] Ibid. p. 78.
[109] Jones, *Queesto,* 1981. p. 54.
[110] Kirchner, F. Matthew. "The Aboriginal Right to Sell Fish, Ahousaht Nation Et Al. V. Canada." (2010). http://www.ratcliff.com/publications/aboriginal-right-sell-fish-ahousaht-nation-et-al-v-canada.

who, for the purposes of the *Ahousaht* case, were considered a Nuu-chah-nulth First Nation.

Despite the ever-increasing fisheries regulations and restrictions, Pacheedaht people have continued to fish. A number of Pacheedaht were actively engaged in the commercial fishing industry, including Chief Queesto Charlie Jones, who is portrayed with family members on his fishing boat *Queesto* in Figure 10. In his memoirs Chief Queesto recalled: "fishing was the main trade of our people in the early days."[111] He described that his grandfather used to go out fishing with a large crew and return with canoe loads of dogfish that were rendered for their oil. The oil was placed in barrels and delivered to the Hudson Bay Co. in Victoria in a canoe that was over 60 feet long. Queesto's grandfather traded in dogfish, halibut and salmon – the latter being sent to trading posts, salted and packed in barrels.

In his youth, during the late 1800s and early 1900s, the young Queesto accompanied his father and other Pacheedaht fishermen up the San Juan River and were able to fill six canoes with dog salmon in a single morning, using nets; they also used fish traps on the San Juan and Gordon Rivers to catch steelhead and dog salmon. Queesto also accompanied his father to his house *Qala:yit* (Cullite IR #3) in the spring, and from there they would fish three different fishing grounds on *?'uöu:?a:* (Swiftsure Bank) using landmarks to find the prime fishing locations. Four to six men would go out in canoes, and after three or four hours of fishing, each would return with up to 400 pounds of halibut each. The fish would be cleaned, then smoked.

Today, many Pacheedaht people continue to fish, although none hold commercial fishing licenses. Individual Pacheedaht members go out in small boats, and fish throughout the offshore portion of Pacheedaht territory, with *?'uöu:?a:* (Swiftsure Bank) still being a heavily favoured area. Salmon, halibut and many types or rockfish are all caught – detailed information on fishing locations and species has been collected through interviews with Pacheedaht members about traditional use and occupancy sites, described later. The Pacheedaht hold important annual community fishing events that target coho and spring salmon runs in the San Juan River, and some individual members also fish with nets in the San Juan.

Fisheries and Oceans Canada has developed an Aboriginal Fisheries Strategy (AFS) for the Pacheedaht that lays out guidelines for types of vessels and gear to be used as well as specifying amounts to be harvested. The Pacheedaht do not agree with all aspects of the AFS.

In general, Pacheedaht fishing activities in Pacheedaht territory have been severely impacted by environmental degradation, fishing regulations and overfishing. The Gordon River and the San Juan River previously supported major runs of salmon, but industrial logging has damaged the rivers to the extent that salmon runs are tiny in comparison to previous levels, as previously described. Commercial and sports fishing activities have

[111] Jones, *Queesto*, 1981. pp. 27 – 32.

also had significant impacts on fish stocks. For example, *?'uöu:?a:* (Swiftsure Bank) is an extremely rich marine area that for centuries has been a prime fishing and sea mammal hunting area for the Pacheedaht and for other neighbouring First Nations, as referenced in sources and documents cited elsewhere cited. Swiftsure Bank soon became a target for commercial fishing interests. A reduction in the abundance of fish at Swiftsure Bank was described as early as 1938.[112] During the mid-twentieth century, prior to the establishment of Canadian offshore jurisdiction over the Bank, it was not uncommon to see more than a hundred commercial fishing boats, including fish processing vessels, harvesting fish on the Bank.[113] The Bank was overfished, leading to significant reduction in fisheries on the Bank. Today, Area 121 *?'uöu:?a:* (Swiftsure Bank), is a closed area for the fishing or retention of halibut, rockfish, lingcod and all finfish, other than for First Nations use. Other areas in Pacheedaht territory are also closed by Fisheries and Oceans Canada to marine harvesting, including Closure 20.4, covering waters and foreshore in Port San Juan, and the Rockfish Conservation Area at Carmanah Pt. (Figure 3).

The use of *?'uöu:?a: (Swiftsure Bank)* by the Pacheedaht was recorded as early as 1850 when large halibut, often weighing up to 200 pounds, were caught there, and sold or traded to others. There was a strong market for selling dried or smoked halibut in Victoria in the early 1900s, as well as trade with other First Nations. This remarkably rich fishing area was, and still is shared under established protocols by the Pacheedaht with the Ditidaht and the Makah from Washington State.

The Pacheedaht exercise their traditional practice of issuing intertribal fishing protocols to members from all other First Nations. Under this protocol, visitors are issued an intertribal pass from the hereditary chief, and a PFN flag; they are also designated in the Fisheries and Oceans Canada radio room. Pacheedaht manages their *?'uöu:?a:* **(**Swiftsure Bank) fishery by collating all the harvesting records for Pacheedaht members and intertribal protocol holders. Pacheedaht Fisheries prepares summaries for all Swiftsure harvests by visiting tribal group. Fisheries and Oceans Canada is supportive of Pacheedaht's careful management of Swiftsure Bank, a measure that is necessary to protect the abundant natural resources at this irreplaceable locale.

[112] Rounsefell, George A., and George B. Kelez. "The Salmon and Salmon Fisheries of Swiftsure Bank, Puget Sound and the Fraser River." Bulletin of the Bureau of Fisheries XLIX, no. 27 (1938).
[113] Pearson, Gary. "Notes and Video Recording from Interview of Gary Pearson by Kevin Neary, Kristine Pearson and Madelen Jones, February 26th, 2014." Port Renfrew, BC: Pacheedaht First Nation, 2014.

Figure 4: Pacheedaht Fisheries Intertribal Protocol Flag

The traditional intertribal system of exchange of resources continues today also. First Nations people travel from locations such as Nanaimo, Haida Gwaii, Newfoundland and Wisconsin, often bringing some of their resources to offer in exchange for the resources they harvest from Pacheedaht territory, usually from Swiftsure Bank.

Swiftsure Bank is 22 km southwest of the former fishing village of *Qala:yit*, Cullite IR No. 3. During the late 19th century, Pacheedaht people lived at *Qala:yit* during the summer months, and travelled to fish at Carmanah, Bonilla Point, Big Bank, Dare Point as well as at *?'uöu:?a:* Swiftsure Bank.

There are several main fishing areas on or near *?'uöu:?a: (Swiftsure Bank)* that have been recorded to date as traditional marine use and occupancy sites: these are shown on the maps presented later in this report. The fishing ground that includes the Swiftsure Bank Closure Area is considered a portion of Pacheedaht territory. Pacheedaht have an aboriginal food, social and ceremonial (FSC) fishery in this area, in recognition of Pacheedaht aboriginal rights. The diversity and abundance of sea mammals, fish species, and other marine resources at *?'uöu:?a:* is integral to providing sustenance for the Pacheedaht, for many First Nations of Vancouver Island, and for other First Nations elsewhere through the intertribal protocol.

Pacheedaht members have caught the following species on and around the *?'uöu:?a: (Swiftsure Bank)* fishing ground: Sockeye Salmon, Chinook Salmon, Coho Salmon, Pink Salmon, Pacific Halibut, Lingcod, Sablefish, Cabezon, Yelloweye Rockfish, Quillback Rockfish, Tiger Rockfish, China Rockfish, Canary Rockfish, Yellowtail Rockfish, Red Banded Rockfish, Rosethorn Rockfish, Pacific Cod, Silver Grey Rockfish, Pomfret, Shad, Jack Mackerel, Skipjack Tuna, Greenland Turbot, Dogfish, Ratfish, Octopus, and Humboldt Squid. Other species that have been observed by community members in the area include: Humpback Whale, Killer Whale, Grey Whale, Basking Shark, Thrasher Shark, Harbour Seals, Fur Seals, Albatross, Sunfish, Basket Starfish, Stellar Sea Lion, Porpoise, and Starry Skate.

Inshore fishing near *?'uöu:?a: (Swiftsure Bank)* includes the following species identified by Pacheedaht members: Halibut, Lingcod, Yelloweye Rockfish, Canary Rockfish, Black Rockfish, Vermillion Rockfish, Greenling, Yellowtail Rockfish, Cabezon, Tiger Rockfish, Quillback Rockfish, and Copper Rockfish.

Pacheedaht and Aquatic Resources Summary

A number of historical documents describe the Pacheedaht economy at, before, and after Contact as being based on marine resources, and including a significant level of trade with other aboriginal groups as well as, later, with white traders.

At various times, the Pacheedaht and other First Nations on the west coast of Vancouver Island, have been profitably engaged in the capture and sale of a many types of marine products that have included whales, sea otters, fur seals, dogfish oil, and various species of fish and shellfish. Whales, sea otters and fur seals have all been overhunted, and are all now species that are afforded protection. However, should their numbers recover to historic levels, and should markets be re-established, these species could again become economically viable for Pacheedaht members. Whales, sea otter and fur seal populations could all be threatened by the proposed project.

Many fish species, particularly salmon and halibut, are traditionally important for the Pacheedaht economy as well as in the traditional diet. Despite the fact the original intent of the establishment of Indian Reserves in 1882 was to set aside fishing stations and fishing rights, including trade, for the Pacheedaht, later Fishery Regulations prevented the continuation of the commercial aspect of Pacheedaht fishing. Later, ever increasing regulations and licensing restrictions continued to limit Pacheedaht members' ability to fish in Pacheedaht territory. There are no Pacheedaht members who hold commercial fishing licenses today. Intertidal seafood gathering continues to be pursued by many Pacheedaht members today, although access to shoreline resources in much of Pacheedaht territory are affected park regulations and sanitary closure described earlier.

Industrial logging in the Gordon River, San Juan River and Jordan River watersheds, along with other environmental impacts, have also resulted in significant reductions to Pacheedaht fisheries. The traditional Pacheedaht fisheries at *?'uöu:?a:* (Swiftsure Bank) have gained additional significance for Pacheedaht members as these are currently healthier and more abundant than those at other locations. It is a primary harvesting location for much of Pacheedaht's FSC fishery, as well as for visitors from other First Nations.

The fisheries and intertidal gathering that remains continue to be of overwhelming importance to Pacheedaht members. Any further reduction, of any magnitude, in Pacheedaht members' access to those fisheries and intertidal resources, or further degradation of these resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights.

Cumulative Effects Summary

After Contact, the British Crown asserted sovereignty over what is now British Columbia, and established the Crown Colony of Vancouver Island, and later the Colony

of British Columbia which confederated with Canada in 1871. The jurisdictions for lands, resources and government, including Pacheedaht and their territory, were assumed by the federal and provincial governments. Many developments and historic events have had significant impacts on Pacheedaht traditional rights relating to the land and marine portions in their territory. The potential effects of the proposed project should be evaluated considering the context of these developments and events.

Figure 3 portrays some of the areas where Pacheedaht's access to marine resources have been impacted by the parks and closures described above.

The cumulative effects of developments, colonization, assertion of provincial and federal jurisdiction, alienation of lands and resources, and industrial developments, in summary, include:

- disease and depopulation after Contact;
- establishment of Indian Reserves and the corollary alienation of Pacheedaht lands and resources;
- loss of language, culture and traditions through Indian Residential Schools, anti-potlatch laws, and the efforts of missionaries and Indian Agents;
- industrial logging and associated environmental impacts;
- non-native settlement activities;
- hydroelectric and mining activities;
- acquisition of lands and marine areas for the establishment of federal, provincial and regional parks; and
- depletion of fisheries and other marine resources, and the imposition of fishing and marine harvesting regulations including loss of economic rights for harvesting of marine resources.

Any further reduction, of any magnitude, in Pacheedaht members' access to fisheries and intertidal resources, or further degradation of these resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights. Similarly, any further damage or degradation of Pacheedaht cultural, archaeological, or other resource harvesting sites, or access to these sites, will also comprise significant losses.

Potential Impacts

Pacheedaht members and staff are concerned that the proposed TMEP project's tanker traffic, and the potential effects of an oil spill and associated cleanup operation, have the could have significant adverse impacts on Pacheedaht members' current and future

practice of their harvesting and other rights in many ways. Some of the concerns are presented below in summary form.

Available information for TMEP

The increase of tanker traffic by 85% related to the proposed TMEP will directly impact the near shore ecosystems, and offshore habitat located within Pacheedaht's traditional territory. Pacheedaht members and staff are worried that the project would increase the strain on the bearing load of what the Juan de Fuca Strait is able to successfully absorb in terms of pollution, wave action, and volume of large vessels. Other concerns have also been expressed about the significant risk associated with the potential of an oil spill, its immediate effects, the long-term environmental damage, and the subsequent ecosystem disturbance related to clean up operations. A major immediate concern for Pacheedaht First Nation and its members is the tanker traffic route that directly crosses the Pacheedaht's hereditary fishing grounds at *?'uöu:?a:* Swiftsure Bank.

Information Gaps in TMEP Application

The risk and impact assessments conducted to date by the proponent do not accurately calculate nor reflect the conditions in Pacheedaht traditional territory. Some of the areas of concern for Pacheedaht include:

- The TMEP calculation of the risks of oiling is based on a number of "most likely" accident locations, the nearest of which to Pacheedaht territory is Location G off Race Rocks, BC. There is no calculation of risk of oiling directly related to Pacheedaht territory. The proponent's accident location scenario has been the subject of questions and discussion with Kinder Morgan representatives by Pacheedaht members and staff, and reflects the shortcomings of the TMEP project application in regards to the specifics of the geographic and environmental features within Pacheedaht's territory;
- Failure to develop environmental information for the Neah Bay buoy, located at the head of the Juan de Fuca Strait. This buoy has historical data most relevant to Pacheedaht territory;[114]
- Failure to include information relative to the estuary areas for the Gordon River and San Juan River. The TMEP application cited the importance of this in the following statement "Estuarine processes produce residual currents in the Juan de Fuca Strait that are poorly understood and can lead to unpredictable current patterns."[115]
- The TMEP documents should describe Pacheedaht's territorial waterways as the "Juan de Fuca Strait" in preference to the proponent's characterization of the area as part of the "Salish Sea;"

[114] National Data Buoy Center. "Station 46087 (LLNR 756) - Neah Bay." National Oceanic and Atmospheric Administration http://www.ndbc.noaa.gov/station_history.php?station=46087.
[115] Trans Mountain Expansion Project. "An Application Pursuant to Section 52 of the National Energy Board Act, Volume 8b, Marine Environmental & Socio-Economic Technical Reports." Calgary AB: Kinder Morgan Canada, 2013. p.4.3.

- The tidal range cited in the application is 2.4m, when Port Renfrew experiences tidal fluctuations of 3.2m during the year.[116]

- The speeds of currents as recorded on the Neah Bay Buoy in 2013 indicate a peak speed of 357 cm/s; the application cites a speed of 75-130 cm/s maximum for the area.[117]

- The speed of the currents, significant tidal fluctuations, swell height, wind speeds, wind orientation, and frequency of fierce winter storm systems should all have been thoroughly analyzed in the TMEP application. The Vancouver Island shoreline along Juan de Fuca Strait has earned the title "Graveyard of the Pacific" due to the many shipwrecks that have occurred in the area.

  Pacheedaht members and staff have requested a supplementary environmental assessment that includes relevant parameters, and diligent field studies in order to properly assess the risk to Pacheedaht's territory posed by a significant increase in tanker traffic increased tanker, potential oil spills, and to assist in cleanup operations.

Marine Pollution

The west coast of Vancouver Island has been identified as an area at high risk for impact by drift rafts of garbage that reach its shores; in particular the northern portion of Pacheedaht's territory is described as a catchment area for garbage and oil because of the bathymetry and ocean currents.[118] This has been recently highlighted by the distribution of tsunami debris, and projections of its eventual distribution on the Pacheedaht coastline. The increase in tanker traffic as proposed by the TMEP would potentially increase the extent of pollution in Pacheedaht's territory.

Pacheedaht staff is concerned that the increase in tanker volume will have an impact on the greenhouse gas emissions and uptake by the oceanic plankton colonies, resulting in lower air quality above and below the surface. Also the water column will be impacted by increased turbulence that could result in lower visibility and higher dispersal rate of sediments. These factors could influence Pacheedaht's marine resource base, particularly in respect to purity from contaminates, as expressed by Pacheedaht members.

Ballast water

Ballast water is regulated by the IMO, but is not closely monitored. Pacheedaht members have expressed concerns regarding the threat imposed by the contents of these holding tanks which potentially include sewage, waste water, and contaminated holding tank water. They also can hold water from other ports visited in the past, which increase the risk of introducing invasive species to Pacheedaht's territory. The risk of this cross-

[116] Fisheries and Oceans Canada. "Port Renfrew (#8525) Tide Tables." Government of Canada, http://tides.gc.ca/eng/data/table/2014/wlev_ref/8525.
[117] National Data Buoy Center. "Station 46087 (Llnr 756) - Neah Bay Historic Data." National Oceanic and Atmospheric Administration http://www.ndbc.noaa.gov/view_text_file.php?filename=46087a2013.txt.gz&dir=data/historical/adcp/.
[118] Skowaisa, Curtis. "Transcript, Video and Maps from Interview of Curtis Skowaisa at Pacheedaht Administration Building on February 27, 2014 by Kevin Neary, Kristine Pearson and Madelen Jones." Port Renfrew, BC: Pacheedaht First Nation, 2014.

contamination of water is great as cited on Fisheries and Oceans Canada's website. Ballast water contained on international ships is a major pathway by which invasive species can enter Canadian waters."[119]

Acoustic Disturbance

The effects of tanker noise on the subsurface marine environment are documented by the proponent TMEP, and are of concern to Pacheedaht members. The detriments to marine mammals, and specifically the resident killer whale population, are recognized by the proponent. "After acknowledging their project has a "high magnitude, high probability and significant adverse effect" on orcas, the proponent is reported to maintain that the at-risk orca population is doomed regardless of their project. "With or without the Project, the southern resident killer whale population continues to be adversely affected by sensory disturbance caused by all types of marine vessel traffic."[120]

The Pacheedaht First Nation and its members are culturally, spiritually, and economically connected to the many species of sea mammals that live in the Juan De Fuca Strait. Whales in general, including orcas, are central within the mythology of Pacheedaht. Orcas are regarded as a transformational creature that is involved in many oral traditions and traditional practices. Impacts to the whale populations, and disturbance to their migration and feeding patterns would pose a significant threat to Pacheedaht's rights to engage in their spiritual beliefs and practices. Species that Pacheedaht members expressed concerns about with respect to acoustic disturbance include: stellar sea lions, seals, humpback whales, sunfish, grey whales, porpoises, and other species no longer abundant, but which could return in numbers in the future such as sea otters, right whales and fur seals.

Tanker Wakes and Marine Safety

The proposed TMEP will increase disturbance to the swell patterns in Juan De Fuca Strait and create safety and other concerns for Pacheedaht members out on the water and on the shore. The tanker wakes could also impact marine resources at the intertidal interface. Pacheedaht members describe that tanker wakes cause alarm while they are intertidal gathering. The waves resulting from the tankers' wakes cannot be heard coming by people onshore. The waves from tanker wakes do not come ashore within the common repetitive pattern of normal wave actions. For those onshore, focused on harvesting in the intertidal area, the sudden increase in wave height from large vessel wakes, arriving without advance warning, can be disturbing and dangerous. Similarly, people fishing in small vessels can lose their balance when the waves arrive unexpectedly.

Pacheedaht have expressed great concern regarding the tankers and increase in traffic while fishing in their traditional offshore fishing grounds, particularly at *?'uöu:?a:* Swiftsure Bank. There is immediate danger while traveling to and from fishing grounds and harvesting sites. The proposed "moving exclusion zone" regulations will not be

[119] Fisheries and Oceans Canada. "Aquatic Invasive Species." Government of Canada, http://www.dfo-mpo.gc.ca/science/enviro/ais-eae/index-eng.htm.
[120] Allan, Robyn. "Endangered Orcas Swim Along Kinder Morgan's Oil Tanker Route." *Vancouver Observer*, May 13, 2014.

effective in increasing Pacheedaht member safety; an example of these regulations is that no small vessel can travel within 0.5 km of the tanker, which simply could not be enforced on *?'uöu:?a:* Swiftsure Bank for the reasons set out below.

There are exact GIS and landmark points that Pacheedaht members have traditionally used for finding the best fishing locations for halibut and other fish. A particular concern expressed is that tankers and other large vessels are difficult to anticipate in foggy conditions, which frequently prevail on *?'uöu:?a:* Swiftsure Bank. Although the large vessels can be heard approaching, it is difficult to determine where and when they might appear, and sometimes they appear out of the fog, moving at speed, causing fear and anxiety.

Once Pacheedaht members reach the traditional fishing sites they will set their gear as appropriate for the desired variety of fish. For halibut it is usually necessary to anchor, with a tie line to a buoy, and weighted lines to the ocean bottom for stationary jigging. Salmon also requires a disciplined methodology for baiting and setting the lines. Multiple lines are set onto downriggers and weighted down at 40 to 150 ft. Both fishing types require time and foresight to effectively avoid oncoming tanker traffic, and then return to the preferred fishing locations. This could result in the loss or destruction of fishing or other harvesting gear such as nets, traps, fishing tackle, rods, or other boating gear. Many Pacheedaht members expressed concerns around fearing for their lives, losing gear, and relocating from traditional harvesting locations while exercising their aboriginal fishing rights within in hereditary fishing areas. An increase in tanker traffic will disrupt fishing or other marine harvesting activities in many other ways such as increasing stress, detracting from the uninterrupted enjoyment of engaging in harvesting activities, and interfering with traditional connection with Pacheedaht territory. The increased tanker traffic will further impact the ocean views for the Pacheedaht members on the water, as well as the quality of sound, the level of concentration, and the ability to engage in expressing the respect and honor that are integral to the traditional harvesting of resources.

Risk of Leaks or Spills of Diluted Bitumen

Pacheedaht's TMUOS has determined significant risk associated with the TMEP proposed increase in tanker traffic through the traditional territory. These risks are associated with the potential for a leak or spill of oil, in particular diluted bitumen into Pacheedaht's waterways. Such events could occur in the scenario of a tanker collision, tanker malfunction, earthquake/tsunami, or military or terrorist attack on a tanker. Such events raise the potential of an oil spill, and if so, the associated damage related to clean up operations. In particular, the resulting impacts from diluted bitumen spill, which could sink in Pacheedaht's marine territory would ultimately destroy or degrade the ability of Pacheedaht members to live and thrive in their territory. In fact, any oil spill and cleanup operation would have significant negative effects on Pacheedaht territory, and Pacheedaht members traditional harvesting sites and practices, as well impacts to culturally significant sites.

WCMRC

Western Canada Marine Response Corporation's mandate is to "deliver safe and effective oil spill response services within the province of British Columbia." Pacheedaht's greatest concern, expressed to the Kinder Morgan Aboriginal engagement team, has been about the lack of any oil spill response planning that is specifically relative to Pacheedaht traditional territory. Pacheedaht expected there would be well-formulated, site-specific oil spill response plan prepared by WCMRC for Pacheedaht territory, but has yet to be provided details of such an oil spill response plan. When questioned at the Pacheedaht community meeting on April 17th, Randy Neufeldt of WCMRC stated that if any oil incident happens under current conditions, WCMRC would have to rely primarily on the Neah Bay facility for response. Pacheedaht is extremely concerned about the current status, or lack thereof, of safe response plans and infrastructure for oil spills. For example, it is not known if the WCMRC response boats, which would have to be trailered across Vancouver Island from Duncan, could even be launched in Port San Juan.

WCMRC's role is to ensure that there are resources and skilled people in place to limit the impacts of an oil spill. Pacheedaht members are aware that the risk of an oil spill exists, and are still uninformed concerning how WCMRC would be able to limit impacts of oil contamination in their territory, under prevailing circumstances. The following are some of the current areas of concern for the Pacheedaht:

- Equipment caches and response vessels being located within proximity, so that the "reasonable time frame" can be achieved, as per WCMRC's criteria developed for effective oil spill remediation. Currently Pacheedaht territory, including the territorial fishing grounds at ?'uθu:?a: Swiftsure Bank are located at the furthest extent within the 6-hour initial response time boundaries shown to Pacheedaht at their community meetings;

- The Pacheedaht need to be informed and educated concerning all aspects of oil spill preparedness and response; such as having personnel trained in Incident Command System (ICS) and Shoreline Cleanup Assessment Techniques (SCAT);

- The Pacheedaht are concerned with the potential for submerged or buried oil resulting from an oil spill; presently there is no equipment specifically designed to retrieve submerged or buried oil; recovery is limited to near shore environments using manual (i.e. hand tools) or mechanical (i.e. backhoe, dredge) methods;

- A feasible oil spill response plan for Pacheedaht must include the environmental parameters specific to their territory to accurately assess the risk. This includes accurate modeling of weather, tides, current, swell height, salinity and wind that prevail with Pacheedaht's territory;

- Pacheedaht members' role in facilitating oil spill response with appropriate boats, equipment, training, and in developing a viable year round marina facility;

- Technology and response plans that are suitable for the oceanic conditions of the Juan de Fuca Strait (particularly salinity levels), ecologically sound practices for the intertidal areas, an open ocean capability of containment booms that can handle the

current, wind, wave and other marine conditions that prevail at the mouth of Juan de Fuca Strait.

- Information about the behavior of diluted bitumen in the event of an oil spill in the Juan De Fuca Strait and applicable scientific research;

- Appropriate designation of clean-up sites relative to Pacheedaht's traditional use and occupancy sites as described in this report.

Transport Canada

Transport Canada's planning standards mandate that WCMRC should have the capacity to recover oil on water within 10 days, and on-shoreline treatment complete within 50 days, and with the ability to treat 500m of shoreline per day. Pacheedaht's territory encompasses approximately 129 km of shorelines. In a worst-case scenario, all 129 km of shorelines could be affected by a catastrophic spill. WCMRC would only be able to handle 25 km of shoreline in 50 days, representing a fraction of the standard established by Transport Canada. Unless there is accurate modeling, and appropriate crews and equipment to be deployed in the event of an oil spill catastrophe, the targeted protection level would be difficult to achieve. Using the Transport Canada standard, in the event of a major oil spill or tanker accident along all 129 kms of shorelines in Pacheedaht territory, it could take up to 258 days to complete the cleanup.

The shipping lane change in 2005 by the International Marine Organization (IMO) resulted in major impacts to Pacheedaht's hereditary fishing grounds at *?'uöu:?a:* Swiftsure Bank. The following are excerpts from the report describing the rationale behind the change to the travel corridor:[121]

> The Governments of Canada and the United States propose to amend the existing routing system in the "Strait of Juan de Fuca and its Approaches." This proposal is being made to address concerns relating to traffic congestion in the area of Swiftsure Bank within the traffic separation scheme (TSS).
> ….
> Traditional commercial and sports fishing areas are in and adjacent to the traffic lanes at the entrance to the Strait of Juan de Fuca. Occasionally, fishing vessels in the area create a conflict for vessels following the TSS, particularly during periods of reduced visibility.
>
> In the development of the 2002 amendments to the TSS, the location of the traditional fishing grounds off the entrance to the Strait of Juan de Fuca was considered. Although it was not possible to completely segregate the TSS from the fishing grounds, the changes were intended to minimize potential conflicts and improve on the previous

[121] Sub Committee on Safety of Navigation. "Routeing of Ships, Ship Reporting and Related Matters Amendments to the Traffic Separation Schemes "in the Strait of Juan De Fuca and Its Approaches, Nav 51/3/5." London: International Maritime Organization, 2005.

> configuration. Those changes provided routeing order and predictability further offshore, thereby reducing conflicts between vessels following the TSS and vessels fishing at the entrance to the TSS. However, the westbound lane through Swiftsure Bank was streamlined and narrowed bringing about incidental conflict within the TSS between fishing vessels and the VTS participants using the westbound exit lane.

In this document, the traditional fishing grounds are acknowledged, but the Pacheedaht First Nation was not engaged in a consultation process regarding the changed routing. The new route falls directly over the hereditary fishing grounds of the Pacheedaht, and overlaps a rockfish closure area designated by Fisheries and Oceans Canada.

In 2002, DFO developed a *Rockfish Conservation Strategy* in an effort to protect and restore declining inshore rockfish populations in Canadian Pacific waters.[122] The TMEP application also identifies a critical habitat in BC for humpback whales (Threatened), located at *?'uöu:?a:* Swiftsure Bank.[123]

Since this change to the international shipping lane route, Pacheedaht members have become increasingly concerned about their traditional fisheries at *?'uöu:?a.* Swiftsure Bank is now at the intersection of a large vessel traffic route, an RCA (Rockfish Closure Area) federally preserved fish rearing area, and the Pacheedaht First Nations' hereditary fishing ground shared with other First Nations. These uses are incompatible.

Kinder Morgan's TMEP will have direct and long term impacts to this very important area. Pacheedaht's members frequently expressed concerns about the additional impacts of the proposed project on *?'uöu:?a:* Swiftsure Bank, on top of existing and previous impacts.

Recommendations for Oil Spill Response Planning

Pacheedaht are concerned that in the event of an oil spill, Pacheedaht's traditional territory will be affected, degrading environmental integrity, and eroding economic security, cultural continuity, and mental and spiritual wellbeing for community members. The complex characteristics of the shoreline (i.e. sand beaches, gravel beaches, rock reefs) across an extent of 129 kms of marine coastline, combined with restricted access by road and water (distance from harbours, extreme weather conditions) will make protection from oil impacts difficult to implement successfully. The on-water oil collection techniques used in spill response could be hindered or prevented by the marine and meteorological factors experienced within the Juan de Fuca Strait. These increase the probability of shoreline contamination during a spill. Pacheedaht aboriginal rights would be affected during all stages of a cleanup response, and, in particular, by the effects occurring at the many traditional use and occupancy sites described in this report.

[122] Trans Mountain Expansion Project. "An Application Pursuant to Section 52 of the National Energy Board Act, Volume 8b, Marine Environmental & Socio-Economic Technical Reports." Calgary AB: Kinder Morgan Canada, 2013. p. 4.11.
[123] Ibid. p. 4.12

Pacheedaht members and staff expressed concerns that any oil reaching Pacheedaht shores would pose significant environmental and health hazards connected with exposure to oil. There would be immediate closures in fisheries, shellfish harvesting, and public beach access within the impacted area. Such closures will limit the Pacheedaht's ability to partake in their ceremonial practices, harvest resources for their community, earn income from tourism and cause many other major problems. Continual monitoring and additional cleanup would need to be established and maintained to ensure the return to healthy fisheries and beaches.

Pacheedaht members expressed many concerns about the risk of an oil spill, and asked many questions regarding their safety. Community members would likely experience mental suffering and emotional grief due to damage to the environment, wildlife, and traditional practices. The cleanup techniques employed during the on water recovery operation, such as *in situ* burning may increase particulate air levels and burn residues that may sink, while the use of dispersants may increase the toxicity of the oil. All residual oil deposits could continue to affect Pacheedaht members in various aspects of health.

Associated cleanup operations could cause significant or catastrophic damage to the marine and near shore environment and resources in Pacheedaht territory. Staging areas generally encompass large areas for personnel, equipment, vehicles, waste storage, and support teams. There would also be significant foot and vehicle traffic to the contaminated shorelines, which could impact any number of TMUOS sites located within the Study Area.

Oil that might arrive on shore would contaminate the resource base for an undetermined amount of time. It would directly impact the populations of primary producers, but would also travel up the food chain to be consumed by preferred food species such as elk, which graze in the intertidal area. Without access to Pacheedaht's traditional harvesting areas, food sources, spiritual places, and heritage sites, there would also be a reduction in the value, desirability, and utility of proposed Treaty Settlement lands currently under negotiation. The marine resource base and lands would be greatly reduced for traditional values, commercial operation potential, recreation interests, housing, and availability for tourism applications.

Pacheedaht's territory includes 129 km of shoreline, comprising over 75% of the Juan de Fuca shoreline within Canada. Any damage or contamination would effectively close the gateway to the Pacific Ocean for tourists, entrepreneurs, commercial fisherman, shellfish harvesters, residents, and others. Pacheedaht members would lose the use of lands and waters that contribute to their identity.

Pacheedaht TMEP Meetings and Expressed Concerns

Pacheedaht First Nation staff and community members attended and held a number of meetings concerning the TMEP. Some meetings were attended by representatives from

the TMEP First Nation Engagement Team; other organizations who sent representatives included Transport Canada and Western Canada Marine Response Corporation (WCMRC). Brief descriptions of these meetings are presented below, followed by a listing of the questions and concerns about the TMEP project expressed by Pacheedaht members, staff, and representatives at the meetings.

August 13, 2013 Meeting

This was the first meeting that introduced the TMEP various Pacheedaht departmental staff, and to Pacheedaht Chief and Council. The TMEP Aboriginal Engagement Team representatives were welcomed into Pacheedaht territory. A presentation, titled the "TransMountain Expansion Project," was given by TMEP Aboriginal Engagement Team members. This meeting was a high level introduction to the project and generated many questions and comments from Pacheedaht staff, Chief and Council.

January 29, 2014 Meeting

The Community Meeting held about the TMEP for Pacheedaht members was also attended by Pacheedaht legal representatives, Chief and Council, Pacheedaht Treaty team members, and by TMEP Aboriginal Engagement Team representatives. This was a full day of Powerpoint presentations to inform Pacheedaht members about the scope of the project. There were many uncertainties and questions expressed by Pacheedaht members and staff about the proposed project. The TMEP representatives promised to document these concerns and schedule a later community meeting to deliver responses.

February 5, 2014 Meeting

Pacheedaht held an internal community meeting for Pacheedaht members, staff, Chief and Council, and Pacheedaht legal representatives. Pacheedaht legal counsel gave a presentation about the NEB process. The lawyers gave information to Pacheedaht members about their role, and what Pacheedaht's role is for the NEB hearings for the TMEP. They also presented information regarding the status of oil spill preparedness in Pacheedaht territory. It was requested that Western Canada Marine Response Corporation should introduce themselves to Pacheedaht and explain their position, roles and plans concerning the safety of Juan de Fuca Strait and about oil spill response preparedness.

April 17, 2014 Meeting

The morning session for this day was characterized as a technical session that focused on a summary of the TERMPOL Report and shipping lane regulations, provided by representatives from Transport Canada for Pacheedaht staff. Representatives from Pacheedaht's Treaty Team, Chief and Council, Pacheedaht legal counsel, Transport Canada, WCMRC, and TMEP Aboriginal Engagement Team members were in attendance. Presentations were provided that gave an overview of the TransMountain Expansion Project, the TERMPOL review process, shipping lane changes, and an introduction to WCMRC. The afternoon session was opened for Pacheedaht community members, and included a TMEP project outline. The manager of WCMRC gave a presentation to the community regarding the role of WCMRC, their new mandate with respect to the TMEP, general equipment information, and the current status of their oil spill preparedness planning.

May 20, 2014 Meeting

The final Pacheedaht Community Meeting sought to review the TransMountain Expansion Project and its implications for Pacheedaht members and staff. There was a brief presentation given by the Pacheedaht Treaty Team, and then the meeting was opened up to community members for a round table discussion where community members expressed their views and concerns.

Summary of Questions and Comments

The following list provides summaries of many of the questions and comments raised during the series of Pacheedaht First Nation meetings concerning the TMEP project, as expressed by PFN community members, staff and representatives.

1. Why is there a different pipe being implemented?
2. Who are the main owners of the product?
3. Are the pipelines running parallel, and if so how is this engineered to have the least impact?
4. Can Pacheedaht receive a list of all the First Nations that you have initiated consultation with?
5. Pacheedaht is very interested in the marine route of project.
6. What are the other shipping projects being presented in the Vancouver region and how many more tankers will be traveling through the same route?
7. Does the Environmental Assessment include the effects of all proposed projects?
8. If the project gets approved, is the primary market going to be California or Asia?
9. The marine portion of the project will be the key issue for Pacheedaht, regardless of how well the actual pipeline is maintained.
10. How many leaks of the existing pipeline have been addressed?
11. Are the tar sands coming through these pipes?
12. Heavy crude does not float. How do you clean that up?
13. Who would be able to provide Pacheedaht an emergency response plan for this area?
14. Once enough groups start raising questions, companies start looking at things they should have looked at from the beginning.
15. If there is a spill in a bigger ocean such as in Pacheedaht's territory, it is actually worse. What have you learned from the Northern Gateway project?

16. Are the tankers not owned by Kinder Morgan? They don't own the product in the pipeline? Once the oil is on the ship it is no longer theirs?

17. Pacheedaht deals with lots of referrals and parties – we may support a local guy at the wharf to carry on with mine exploration – its just to drill a few holes. Before we know it – that mine has been sold. During that transaction, we lose our strength of who to communicate with, and all the initial promises are forgotten.

18. If Kinder Morgan is responsible for the pipeline, then the oil goes on the ships, who is liable for when a ship gets into trouble?

19. What is the timeframe for the proposed tug at Neah Bay to respond to the ship in trouble from Pacheedaht's waterways? And how long until it retrieves the tanker?

20. Kinder Morgan is proposing to bring oil to the terminal, and the responsibility, the liability ceases at that point?

21. Ship owners putting up bonds doesn't cover the liability to look at the adverse impacts on rights/title/culture?

22. There is all kinds of things that happen in Environmental Assessments; what gets studied how it gets studied, indicators… if Kinder Morgan can show that nothing bad is going to happen, the issues of Pacheedaht will never be dealt with.

23. There will be many impacts, who will address them?

24. Kinder Morgan has never visited Pacheedaht before now.

25. How many ships have you refused to fill due to not meeting safety standards?

26. Will the Kinder Morgan pipeline impact the refineries' operations in Washington?

27. Did Chevron meet with aboriginal groups for their support in deciding to maintain operations at their facility?

28. The marine traffic of the Juan de Fuca Strait is being scoped in the review.

29. With the size of this project, why is acceptable to use a desktop report approach to some of the questions being asked?

30. Is there a cache for WCMRC equipment in Bamfield?

31. Pacheedaht would like to send a representative to WCMRC caches in Bamfield and Esquimalt, to determine what your inventories and supplies are.

32. Pacheedaht has never seen any representative from WCMRC- they have never been here.

33. The more you rely on WCMRC the more you are going to have to incorporate comments from Pacheedaht

34. Kinder Morgan is on the board of directors of WCMRC– but not responsible for spill response? It is all very connected, but liability is lost.

35. How does the WCMRC interact with the Trans Boundary group?

36. Does the project application include the Environmental Assessments and studies?

37. Can you send a list of the permits and approvals that you need federally and provincially?

38. Have BC Parks been contacted in regards to the project?

39. How long have you (TMEP) been working on studies for CEAA?

40. Your study area doesn't include PFN territory in terms of assessing the marine traffic off of the territory in the NEB process.

41. One of the key issues is the effects on harvest levels, is that going to be captured in the marine studies.

42. When you look at your marine route, it goes right by PFN and beyond.

43. We need a confirmation that your regional study area includes the marine part of Pacheedaht's territory, and secondly that you will work with us on the boundaries on the studies.

44. Pacheedaht needs the defined storm-toss area on shorelines, and clean up area for any oil spill clean up operations

45. PFN needs to have an agreement in place with Kinder Morgan in regards of how the TMUOS will be used.

46. If Kinder Morgan would have worked with Pacheedaht in advance, many of the socio-impact assessment indicators would be formulated and it would save time.

47. Chief and council is obligated to report this meeting and discussion with the membership and ask for their input.

48. Kinder Morgan will have to defend what has been put into public information, in regards to Pacheedaht's TMUOS information being accounted for.

49. If one of the tankers went aground, there are many miles of Pacheedaht marine territory.

50. We have to sell this to our community – our beach is our economy – one oil spill can ruin our economy. It's a big concern having to tell the people how we are covered, who is protecting us. We can't move away from our homes.

51. There's a sensitivity here beyond the normal when you take into account post treaty vision, which has an entire future based on eco tourism.

52. Is there a shipping alternative?

53. There was no consultation when the shipping lanes changed, which now transits through one of Pacheedaht's main fishing areas ?'uөu:?a: Swiftsure Bank.

54. Pacheedaht has initial questions about increase of traffic, impacts to shorelines, impacts to beaches, and impacts to historical village sites.

55. Has Kinder Morgan begun to think about having PFN involved as oil spill responders, or setting up an ongoing fund that would be used for rehabilitation?

56. Pacheedaht has to have something in place in preparation for a worst-case scenario oil spill; things have to be worked out before anything happens. I am sure we have qualified skippers in our community.

57. Although the chances are one in a million for an oil spill, the only one that makes a difference is that one. For example tsunamis, we don't think about it until it happens.

58. Are you holding this discussion with non-First Nation groups? If so, have those applicable organizations been contacted on Vancouver Island.

59. ?'uөu:?a: Swiftsure Bank is a hereditary fishing ground of the Pacheedaht. It is shared with Ditidaht and Makah, and Pacheedaht manages the fishery for all visiting First Nations. This is a particularly good area for fishing halibut, salmon, and rockfish. The shipping corridor moved a few years ago, and now goes over part of the ?'uөu:?a: Swiftsure closure area- this puts fishermen at risk.

60. A Pacheedaht member had visited Alaska recently, and met a group of mussel harvesters. They had been "globbed" by an oil deposit that still remained after the Exxon Valdez oil spill. Many years later, the harvesters were being impacted by the effects of the oil spill, and were unable to harvest their traditional resources.

61. Will there be a mechanism to compensate future generations for their losses after an oil spill?

62. Will diluted bitumen sink with wave action and sediment?

63. Can the tankers carry oil spill response equipment?

64. Is the expansion of the berth in Burnaby for 2 or 3 berths?

65. If the insurance company is liable for the tanker accident, who will cover the costs over their budget?

66. What is the response time for WCMRC to reach Pacheedaht territory?

67. Is there testing for drug and alcohol use by the captain or crew of the tankers?

68. How many tankers are currently moving through the Juan De Fuca, and how many of them are Kinder Morgan related? What types of tankers do these include?

69. Has Kinder Morgan included such variables as tsunamis, earthquakes, and terrorist attacks in the risk assessment?

70. How does dilbit behave in the ocean, with varying conditions of salinity and particles?

71. Are there records of how many sea mammals have been killed due to tanker traffic?

72. Why do we have to risk our lives to get traditional resources?

73. How long does it take for a tanker to come to a stop?

74. Is there a mechanism of compensating economic losses in the event of an oil spill or leak?

75. How is the insurance going to work in the event of an oil spill?

76. The insurance company for the tanker ships could declare bankruptcy and leave Pacheedaht holding the bag; this is what has historically happened here and elsewhere in the world.

77. Is this just another empty promise, as it has been with other corporations in Pacheedaht's territory? MacMillian Bloedel, and BCFP promised forests forever in the 1960s. They talked about long term forest but closed the mills 20 years later. Pacheedaht wants to see money on the table for every barrel of oil that goes by.

78. Will the migrating salmon seen at ?'uȍu:?a: Swiftsure Bank be impacted when they return to Pacheedaht's territory and beyond?

79. Will the sea mammals seen at ?'uȍu:?a: Swiftsure bank be impacted by the tanker traffic?

80. Will future generations still be able to start a whale watching company or other ocean based tourism business if the pipeline is built, or will the environment be too degraded by the tanker traffic?

81. What will the impacts be on Pacheedaht's cultural sites?

82. Have the previous oil spill and their clean up operations been effective? What strategies made them effective?

83. Is it weather dependent for WCMRC to respond in Pacheedaht's territory?

84. What is the efficacy of the current equipment used by WCMRC?

85. Is there an agreement between the US and Canada regarding oil spill response?

86. What percentage of diluted bitumen will be shipped after terminal is expanded- today is 20-30%, and expected to be 70%?

87. What are the differences between diluted bitumen and other petroleum products?

88. Does diluted bitumen float in Pacheedaht's waters, particularly in regards to local salinity and sediment levels?

89. How will the diluted bitumen behave in the wave activity of the Juan de Fuca Strait?

90. Request for stochastic modeling to be done not based on "average" weather patterns.

91. Request for stochastic modeling in Pacheedaht's territory.

92. Is Termpol committee looking at the tanker safety reports, or fishery resources survey?

93. Is there a vessel acceptance criteria in the application for TMEP?

94. Will the exclusion zone be included in TMEP planning?

95. One recommendation of the Tanker Safety Report was worst case discharges- what are the worst case discharges considered by Kinder Morgan?

96. Why was the J-Buoy moved? Why weren't Pacheedaht and other First Nations consulted on this change that affects the hereditary fishing ground at ?'uөu:?a: Swiftsure Bank?

97. Pacheedaht has the longest response time from the Oil Spill Response Equipment warehouses, particularly at ?'uөu:?a: Swiftsure Bank.

98. When is Kinder Morgan planning on having consultation about the Oil Spill Response Plans?

99. If Kinder Morgan doesn't complete the sink vs. float work before project approval, then you won't know how long you'll need to respond, and so you can't plan for emergency response.

100. You can't imagine what a spill would do to a culture and way of life, Pacheedaht still harvests as they did before. Kinder Morgan has highlighted the risk, and escalated concern.

101. This is the first time Pacheedaht has met with Randy Neufeldt from WCMRC

102. Has any consideration been given of impacts to harvesters? Harvesters are concerned that tankers can emerge out of the fog at ?'uөu:?a: Swiftsure Bank.

103. Kinder Morgan has filed their application early, without thorough consultation with the First Nations of the marine corridor.

104. Kinder Morgan is not getting a clear picture of the risks because all of their data is based around the Victoria area, the Salish Sea. Pacheedaht's territory encompasses the Juan de Fuca Straight and entrance to the Pacific Ocean.

105. Much of the territory is long shorelines of deep sandy shores which would be very difficult to protect and clean up.

106. There can be a lot of fresh water around Pacheedaht's territory because of heavy rain and run off, therefore impacting the salinity parameters of stochastic modeling.

107. There needs to be better response time for the area around Pacheedaht.

108. Pacheedaht's whole economy depends on these shorelines.

109. The beach is used currently by Pacheedaht as a campsite, which is an important source of income.

110. Pacheedaht's vision under treaty includes a lot of eco-tourism which would be impacted by the TMEP.

111. WCMRC should be coming to meet with Pacheedaht, to introduce themselves, and to discuss where some equipment and vessels could be stored in Pacheedaht territory.

112. Pacheedaht would like to obtain the current geographic and logistical response plans from WCMRC for current data.

113. The NEB timelines are too limited for Pacheedaht to adequately assess the potential impacts before June 2104.

114. Pacheedaht did advise Kinder Morgan not to file their application when they did because more work was needed to understand the impacts.

115. Harvesting on ?'uθu:?a: Swiftsure Bank will be directly impacted. TMEP will be interfering with Pacheedaht's fishing rights currently and in the future.

116. ?'uθu:?a: Swiftsure Bank is also a traditional marine mammal harvesting site.

117. Will there be employment opportunities for Pacheedaht from the TMEP?

118. What kinds of weather conditions can WCMRC operate in regarding wave height, wind speeds, and visibility?

119. Do you use hot water to flush the intertidal areas?

120. What kinds of vessels and equipment does WCMRC have for recovering oil?

121. What response plans does WCMRC have for off-shore spills.

122. How will WCMRC's equipment be able to effectively protect Pacheedaht's territory in the event of a large spill?

123. Pacheedaht is being put at risk, and protecting the territory and resources are the number one concern.

124. Pacheedaht has lost so much already, Canada has taken so much, and now their waterways are at risk from this project.

125. Angered that these big corporations are able to jeopardize Pacheedaht's wellbeing in this way.

126. TMEP should not be considered.

127. TMEP puts Pacheedaht's livelihoods at risk.

128. Tanker traffic out on ?'uöu:?a: Swiftsure Bank makes it scary to go out to fish.

129. Pacheedaht wants their voice to be heard.

130. The uncertainty of the oil spill response planning makes members angry and afraid.

131. Members do not agree with the project.

132. All Pacheedaht members eat seafood and fish here, and heavily rely on our marine resources.

133. Pacheedaht had not even known WCMRC existed until this meeting.

134. Transport Canada changed the shipping lanes without any consultation with Pacheedaht.

135. More time, effort, and thought is needed to address the rights and title of Pacheedaht.

136. The Pacheedaht youth is the reason why we need to protect the territory and resources.

137. There is too much risk involved with TMEP, and it's being pushed through too quickly.

138. Pacheedaht would like to convey that we are not happy, and a lot more work needs to be done

139. Right now we are looking to Neah Bay to respond in the case of an oil spill; it's wrong to have to look to the United States to respond.

140. Does WCMRC respond to other kinds of spills?

141. Kitimaat rejected what you are promoting here, it is just too dangerous if anything were to happen. They can move the project somewhere else.

142. How ready is WCMRC? We have no Coast Guard in the area to respond.

143. The Canadian government isn't following through with upholding our aboriginal rights and title.

144. There is no comfort in the projected "6 hour" minimum response time

145. Why can't the oil destined for California be trucked or sent by rail?

146. There is so much pressure in the Juan de Fuca, and this project escalates the concerns.

147. Has there been any consideration on humpback and other whales in Pacheedaht's traditional territory- in particular on ?'uöu:?a: Swiftsure Bank?

148. This project could affect our drinking water sources, as the river estuaries of the San Juan and Gordon are extremely tidal.

149. Is Kinder Morgan aware of the burial sites along the coast?

150. Pacheedaht's privacy will be negatively impacted by the tanker traffic increase, both while harvesting and utilizing the traditional territory

151. We rely on ?'uöu:?a: Swiftsure Bank for fishing halibut, Lingcod, rockfish, and salmon, and hopefully one day a whale.

152. All other First Nations that visit and fish at ?'uöu:?a: Swiftsure Bank respect our protocols.

153. Kinder Morgan is traveling through our traditional territory, as well are the migrating sea mammals and fish.

154. How will the tanker traffic impact the stellar sea lions, and seal populations.

155. The salmon stocks in Pacheedaht's territory have been decimated by industrial logging practices. Will there be any liability in effecting our traditional resource base that is already compromised?

156. Even if the resources are restored, they will never come back to what they were before.

157. What impacts will the TMEP have to marine birds, which Pacheedaht harvests for food?

158. Our family visits every year from Vancouver and afar to fish halibut out at Swiftsure Bank.

159. I was in Alaska when that oil spill happened. The folks from Ketchikan and area headed to the oil spill site. I don't know if the material was ever totally cleared up.

160. Did the proponents weigh the chances of an oil spill happening? Some of the ships are pretty old.

161. Our coast will never be clear if a spill happens. There is a good chance of a spill happening.

162. 50 or 60 years ago there was an oil spill in Port Renfrew. The barge was on the beach here for years.

163. This coast is known as the graveyard of the Pacific.

164. Does Washington State, the Makah, Clallam, and Quinault know of this plan?

165. Have we been to any meetings with Washington State? Do we know what their opinion is?

166. Why don't they pipe it direct to California? We will be holding the bag, we will be responsible for cleaning up our own area. Exxon Valdez made $20 million from the clean-up operations. Seems like the coast is going to foot the bill for American oil. Big oil wants us to rationalize our way to say yes to the pipeline.

167. We have concerns about recovery time. If there is an oil spill how long will it take to clean-up? Will an oil spill kill off everything? How long will it take to be edible again?

168. How prepared is this plan for sending oil tankers through? We don't even have Coast Guard an S.O.S. In 18 minutes a helicopter from Port Angeles picked up the passengers before the Canadians could respond. The Coast Guard situation in this area needs to be looked at.

169. There is a lack of ability to respond to an oil spill and the length of time a response would take; a lot of damage can happen in that length of time.

170. Why was the Burnaby site chosen?

171. Have they done any tests on humpback whales or any whales to determine how they are affected by the noise?

172. Our people are tired of all the things that are happening. Our people are treated as prisoners of war. None of our land has ever been transferred.

173. From all directions they (other first nations) attacked us. We always held our own. Until the white people came and they started selling our land.

174. We are just getting our kids back into seafooding. How can I teach my kids if the areas are wiped out?

175. In the last few years people have been working hard to document sites, traditional information, and cultural exchange – now it could all be lost again?

176. If there was an oil spill and we lost our ocean resources. "That is our supermarket out there." We would have to travel far to get healthy food. We are already suffering with diabetes, etc. Tankers cannot replace that. We are already forced into buying food that is GMo'ed.

177. Out there is not what it used to be but we do have a portion. There is no replacement for the quality of living for our people.

178. We are so rich in traditional resources. Has anyone contacted Port Renfrew residents to talk to them?

179. What areas are you most concerned about ? THE WHOLE AREA - in capital letters ALL of it… and beyond… from Haida Gwaii down

180. The protocol for fishing on Swiftsure Bank is respected by other First Nations right up to Merritt. There is a huge interest from other First Nations. It is a nursing bank – something we need to protect. Fraser River salmon run through the areas. They come in by the millions. If a spill did happen it would affect the food chain – ducks, sea lions, seals, etc.

181. Salmon runs have already been destroyed. Only sockeye exist because of the hatchery. Dog salmon in the river. The salmon beds are dead from the logging operations. Nothing has been said about that. Different Tribes from different places used to come in to gather winter food.

182. Some places have game wardens like up north but we don't have them. Spawning beds up north are in better shape. Runs here are a bare trickle.

183. Travel routes for our local salmon are important. Gordon River is pretty beat up. Sockeye are struggling in Gordon River – gravel is filling in the pools. In 2013 we swam the Gordon River and counted 1200 Coho but only 4 sockeye (there is nowhere for them to go). We no longer see Chinook or Sturgeon in the Gordon River.

184. Are there any possibilities for people being liable for the damage to our fish habitat? Can we sue? San Juan and Harris Creek have also been destroyed. Pacheedaht have to assert their legal rights.

185. We will be a helpless bunch of people if there is an oil spill. None of us have been trained. Some have gone through small craft training. Need a coast guard station real bad. People here don't speak up. Are people in Ottawa listening?

186. Worried about birds, elk as well as fish.

187. Concerned about water quality. PFN's well is shallow – a spill could affect drinking water.

188. We all have seen tankers while fishing Swiftsure recently. When I go out I am going blind. Can't see them in the fog.

189. Requests that the 6 km travel corridor be moved.

190. I am concerned that while I am participating in seafooding in our traditional territory, that the tanker traffic wakes may interfere. There are youth and elders who attend the seafood gathering and are not able to quickly get away from the harvesting area.

191. Will the tanker wakes change the intertidal zone?

192. Will there be pollution from the project? Our resources are already damaged, there is less and less each year.

193. What would an oil spill do to our marine birds?

194. How will the tanker traffic affect the sea lion rookery near IR #4 or at Sombrio?

195. Why were the humpback whales downgraded from the SARA list?

196. One day Pacheedaht will take a whale again.

Traditional Marine Use and Occupation Sites

Traditional Marine Use and Occupancy Site Research Methodology

Information Sources

The Pacheedaht TMUOS derived information from a variety of sources. The following report sections identify the sources of information included in the project's TMUOS Database, GIS and Maps as well as details of project research methodology.

The three main sources of information for the Pacheedaht include:

1. Interviews: Project-specific interviews conducted with Pacheedaht cultural advisors during the early part of 2014, as well as previous interviews, as described in more detail below.

2. Archaeology: Information about archaeological sites located in the Study Area obtained from the Archaeology Branch, Ministry of Tourism, Culture and the Arts, Province of British Columbia.

3. Written: Information about Pacheedaht history, use, and occupation in Pacheedaht territory recorded in archival and published sources, reports, maps and other sources. A summary of this information is available in the project's Preliminary Report, submitted in February of 2014.

Protocols and Project Establishment

The Pacheedaht TMUOS project was managed through the Pacheedaht First Nation's Treaty Department, and in conjunction with the previous and ongoing work and research of the Treaty Department's Pacheedaht Heritage Project. The over direction for the project was provided by Pacheedaht First Nation's Treaty Manager, Dorothy Hunt. The project started in November of 2013, and was due to be completed at the end of April of 2014.[124] The overall direction and phases followed the Project's Workplan.

The initial project meetings established the following:

- TMUOS team members were to include the members of the Pacheedaht Heritage Project, including Pam Jones, Madelen Jones, and Kristine Pearson, under the supervision of Dorothy Hunt, Pacheedaht Treaty Manager, and consultants from Traditions Consulting Services, Inc., including Kevin Neary, Pamela Williams and others as required;

[124] The Pacheedaht team working on the TMUOS project lost two of its five members in late March and early April of 2014 causing unavoidable delays in the completion of the project Final Report. Postponement of the report deadline was discussed with the TMEP Aboriginal Engagement Team.

- Due to the limited time available for the project, emphasis was to be placed on obtaining information from sources and individuals not consulted during previous projects;
- Previous research projects had focused on interviewing Pacheedaht Elders, as their information was most at risk. Information from these interviews related to Pacheedaht First Nation members'ractivities in the period of the 1920s –c1990s. The TMUOS project was to emphasize obtaining information relating to activities from the 1990s to the present;
- The TMUOS project was to identify for interview Pacheedaht members who were known to have a history of active participation in the collection and use of marine resources;
- Project research was to be conducted according to accepted methodological practices;
- Information from previous projects, and from sources at the Pacheedaht Treaty Department Library and Archives was to be included in the project research; and
- All information and documentation from the project is to be deposited at the Pacheedaht Treaty Department at project end.

Traditional Use and Occupancy Site Research Methodology

The methodology and guidelines employed for the Pacheedaht TMUOS are generally based on those developed, described and recommended by the Province of British Columbia's Traditional Use Study Program.[125] Some adjustments of these guidelines were made for the Pacheedaht TMUOS project, particularly in the number, content and structure of fields in the project's Traditional Use and Occupancy Site Database, outlined later.

The methodology employed is considered to be thorough and reliable, and has been used successfully in many other projects. The methodology is used in preference to other traditional use and occupancy research models that focus on the identification of "kill, capture and gather" sites only. The TMUOS methodology employed for the Pacheedaht project identifies areas and locations where Pacheedaht members, past and present, exercise their traditional harvesting practices and customary rights, and not just specific points where Pacheedaht members obtain fish, seafood, gather other resources or engage in cultural practices.

As determined through protocols established at the project's outset, the TMUOS is being conducted in as thorough a fashion as possible, and is attempting to identify not just where Traditional Marine Use and Occupancy Sites are located, but is also documenting,

[125] B.C. Ministry of Forests, Aboriginal Affairs Branch. "Traditional Use Study Program Guidelines." Victoria, BC, 2001.

when possible, additional details about each site and a history of activities that occur, or have occurred there. The information might include details such as: when the site is or has been used; where and from whom information about the site was learned or obtained; other people who are known to have used the site; the history of activities at the sites; the times of year when it has/had been used, the relative abundance of resources at the site, and the significance of the site to Pacheedaht members.

Traditional Use and Occupancy Site Definition

The definition of a "Traditional Marine Use and Occupancy Site" is considered to be the same as that for a "traditional use site" presented in the Traditional Use Study Program Guidelines, cited above:

> "A Traditional use site is any geographically-defined site (on land or water) used traditionally by one or more groups of people for some type of activity. These sites may lack the physical evidence of human-made artifacts or structures; yet maintain cultural significance to a living community of people.
>
> - Information about the existence and nature of Traditional Use sites is usually obtained through interviews with community Elders, as well as archival and literature searches. Examples may include:
> - Locations associated with traditional beliefs of an Aboriginal group about its origins, cultural history or world view;
> - The location of trails, sacred sites and resource gathering sites such as berry grounds;
> - A location where a community has traditionally carried out economic, artistic or other cultural pursuits important to maintaining its identity; or
> - The traditional home of a particular cultural group.
>
> Under certain circumstances, information pertinent to understanding some of these resources is enhanced through archaeological investigation."

For the Pacheedaht TMUOS project, archaeological sites are considered a type of traditional use and occupancy site, as implied by the definition above. Archaeological sites are important to present day Pacheedaht, as they are considered time capsules that contain centuries of Pacheedaht history, and important "markers" of Pacheedaht activities past and present.

For the purposes of the TMUOS project, one can conceptualize traditional use and occupancy sites as composed of three potentially overlapping subsets from a chronological perspective:

- Archaeological sites;

- Sites as used for traditional purposes in the past; and
- Sites used for traditional purposes today.

For example, a single traditional use and occupancy site may be in use today for traditional activities, it may have been documented in the past as being used for similar or other traditional purposes, and it may also be formally recorded as an archaeological site.

In interviews, when asked a broad question such as "where do you gather seafood," or, "where do you fish," Pacheedaht interviewees commonly respond: "everywhere." Such responses do reflect a level of use of territory and resources. In fact, Pacheedaht members often regard the entirety of their territory as a type of "traditional use and occupancy site" throughout which many traditional activities occur or have occurred. Further, while many harvesting and other use activities are planned in advance at known and desirable locations, they also occur when and where opportunity presents itself at many other locations.

For this report, the traditional use and occupancy sites recorded in the database are sites which:

- were pointed out and described by Pacheedaht members in interviews or on groundtruthing trips as sites customarily used or preferred for traditional activities;
- are described in interviews or documentary sources as locations where resources are harvested on a regular basis, particularly where they are abundant, reliable, or possess desirable qualities;
- are archaeological sites; or
- qualify based on other criteria included in the definition provided above.

Information Sources for Pacheedaht Traditional Use and Occupancy Site

Previous Projects

The Pacheedaht TMUOS project incorporated information from a number of previous research initiatives and projects, and particularly from the Traditional Use Study of the Pacheedaht First Nation Territory completed in 1999[126] and the ongoing Pacheedaht Heritage Project. During these projects, information has been compiled and entered into a Pacheedaht Traditional Use and Occupancy Site Database, and its associated GIS database. This database has been used as a baseline for the TMUOS project, with new information from the TMUOS project interviews and groundtruthing trips being added and integrated, as described below.

[126] Dewhirst, John, and Ruben Wackley. "A Traditional Use Study of the Pachedaht First Nation Territory, Volume 1: Report (Draft). Prepared for the Aboriginal Affairs Branch, B.C. Ministry of Forests. Prepared by Pacheedaht First Nation, Port Renfrew, B.C.". Port Renfrew, B.C.: Pacheedaht First Nation/Archaeo Research Ltd., 1999.

Archival and Published Sources

This report's References section provides information for many of the sources consulted for information about the Pacheedaht and about traditional use and occupancy sites.

Interviews

The information about the Pacheedaht traditional marine use and occupancy sites included in the Pacheedaht TUOS database, and associated GIS and maps, has mostly been provided by Pacheedaht people. It is considered relevant to provide biographical summaries for the people interviewed; their information is generally derived from a lifetime of experience, and from knowledge obtained from generations past.

Pacheedaht First Nation Traditional Use Study 1997-1999 Interviewees

In 1997, the Pacheedaht First Nation and the Aboriginal Affairs Branch of the BC Ministry of Forests commissioned a Pacheedaht Traditional Use Study (TUS).[127] The project, completed in 1999, focussed primarily on collecting information about TUS sites on the land portion of Pacheedaht Territory. The information from this TUS project provided the basis for the development of additional traditional use site and occupancy site information. The 1999 TUS project's GIS and database especially provided a good foundation for additional research that has been conducted by the Pacheedaht Heritage Project and for the Traditional Marine Use and Occupancy Study during 2013 and 2014.

The 1999 TUS Study included information derived from interviews with many Pacheedaht members and other people knowledgeable about Pacheedaht culture, history and resource use. The TUS Study recorded information about the interviewees as follows, and is presented as found in the project's 1999 report, and as it referred to people at that time:[128]

> Most of the cultural advisors (informants) who provided information on Pacheedaht territory through audiotaped interviews, are listed below in alphabetical order. Biographical summaries are provided for family and community background, as well as an explanation for the knowledge they contributed to the study. Informants are identified by their initials which are also used to reference their statements in the database and this report.

NB **Nora Baker (née Jones).** *ʔickʔɪ̓ib* was born in 1933 in Port Renfrew to Ada Jack and Joseph Jones, brother of Charles Jones Sr. NB is one of six children. Her paternal grandparents were Annie and Queestoh (father of Charles Jones Sr.) of Pacheedaht.

NB lived in Port Renfrew until school age when she left for Residential School in Port Alberni. Returning home on holidays and other breaks, NB remained in the

[127] Dewhirst and Wackley, *Traditional Use Study*, 1999.
[128] Dewhirst and Wackley, *Traditional Use Study*, 1999,p. 12. The information about the Pacheedaht people interviewed is presented as written in 1999.

community until she married Willis Baker from the Squamish Nation in 1953. She continues to return to Port Renfrew. Her memories of the area provide family background information and details of summer activities especially harvesting berries, basketry grass, cedar bark and seafood. Her brothers LJ and WJ were also informants to this study.

FC **Flora Charles.** FC was born in 1920 to parents James Thomas of Clo-oose and Ida Daniels. Her mother later married Chief Charlie Jones Sr. of Pacheedaht, and brought her children - FC, Edith Joseph, and John Thomas - to live with her new family in Port Renfrew. FC remained at the Port Renfrew reserve until she was 16 years old [1936] when she married into the Songhees Band. FC speaks Pacheedaht dialect and Ditidaht language and was valuable to the study for her linguistic contribution. She currently lives in Port Angeles, WA. FC's sister Edith Joseph (EJ) was also an informant.

CC **Carlson Charlie.** CC was born in 1954 in Tofino to parents Ada Charlie (née Jumbo) and Arthur Charlie. He was raised in Ahousaht until age nine, then moved to Nanaimo and later Victoria. CC arrived in Port Renfrew in 1969, and married Pacheedaht Band member, Teresa Jones.

CC has worked in the logging industry in Port Renfrew since 1973. He is active in hunting and seafooding in the area, and this familiarity with both the coastal and inland territory of the Pacheedaht has provided much information on contemporary use of the area.

HD **Helen Dunn.** HD came to Port Renfrew in 1992 employed in a summer position with the Fisheries Dept. and has been involved with numerous fisheries programmes and initiatives since then. HD and her partner Jeff Jones reside at IR2. HD provided the study with information on fisheries resources and related issues in the Pacheedaht area.

CE **Carl Edgar Sr.** CE is an elder of the Ditidaht First Nation. Born at Clo-oose, CE is fluent in the Ditidaht language, and is familiar with much of the Pacheedaht dialect. He provided details on native place names and other cultural use information.

RJ **Roy "Butch" Jack.** Born in 1954 in Seattle, RJ was raised in Port Renfrew from the age of two, living with his maternal grandmother, Ada Jack (née Edgar), who was from Nitinaht. After spending his school years at the Alberni residential school, RJ returned to Port Renfrew to work in the local logging industry. An injury led him to change occupations to his current employ of providing water taxi services to West Coast Trail hikers. He actively participates in food fishing and hunting for both personal and community needs. RJ has extensive knowledge of both the coastline and inland territory.

RJ's mother is Hazel Peters (née Jack), the youngest of Ada Jack and Gordon Jack's four children. RJ spent a great deal of time with his maternal grandmother and the other >old people' in Port Renfrew and recollects a number of land use experiences during that early time.

PJ **Pearl James (née Gibbs).** *wiswa.sc'a?a* was born in Nitinaht in 1929, and raised on the original reserve, IR1, at Port Renfrew. Her mother was Lucy Gibbs (née Jones) of Pacheedaht, the eldest daughter of hereditary chief, Willie Jones. Her father was Bill Gibbs, son of Chief George Gibbs.

PJ lived with her grandfather, Willie Jones, for a time during her youth in Port Renfrew, and he involved her in many of the cultural practices usually reserved for men. She was also educated in the traditional female tasks by the women in her extended family. PJ provided considerable detail from these experiences in Pacheedaht.

SJ **Susan Johnson (née Lazaar).** *xamc̓.xɬi?a* was born in 1910 to parents Anne (or Hanna) Jones of Pacheedaht and Andrew Lazaar of T'Sou-ke. She spent six years at Kuper Island residential school during her youth. Although she usually returned to the Sooke area for school breaks, her mother's family connections to Pacheedaht enabled SJ to make numerous trips to Port Renfrew over the years. SJ contributed details of T'Sou-ke and Pacheedaht family histories. She passed away early in 1998.

ACJ **Arlena Jones.** ACJ was born in 1946 in Duncan to parents Mary George of Koksilah, and Arthur Jones of Pacheedaht. ACJ recalled memories of Port Renfrew from when she lived with her grandmother, Ada Jack, until she was five years old. ACJ assisted Ada Jack in gathering plants, roots and seafood. She then left to attend Residential School in Port Alberni. ACJ resided in Vancouver, but often returns to visit family at Gordon River IR2.

AJ **Arnold Jones.** AJ was born in 1945 to parents Mary Jones (née Youkum) of Tseshaht and Walter Jones of Pacheedaht. AJ's paternal grandparents were Charlie Jones Sr. and his second wife, Elsie Doras. AJ lived in Port Renfrew until age ten when he left to attend residential school. During his youth, AJ hunted and fished with his father, uncles, and brothers. He often returned to Port Renfrew.

BJ **Bill Jones.** Born in 1940 to parents Mary Jones (née Youkum) of Tseshaht and Walter Jones of Pacheedaht, BJ is the third eldest of nine children. BJ's paternal grandparents were Charlie Jones Sr. and his second wife, Elsie Doras. BJ spent his youth between residential school in Port Alberni and public school in Port Renfrew. He has lived on IR2 at different times, and returned to permanently reside there in 1995.

BJ recollects hunting and fishing in the Pacheedaht territory with his father, uncles and brothers when he was younger. Through his close contact with the community and area over the years, BJ has observed numerous cultural and environmental changes.

ChJ **Charles Jones Junior**. ChJ was born in 1925 to parents Ida Jones (née Daniels) and Charles Jones Sr. of Pacheedaht. ChJ is one of seven children. He spent some time at Coqualeetza residential school in Chilliwack, but was able to return to Pacheedaht for the summers. ChJ received the hereditary title of chief , which he currently maintains, after the passing of his brother, Ken Jones. ChJ married Roberta Bosustow in 1968 and they continued to reside on IR2.

CJ **Charles Jones Senior**. **Queestoh** was born to parents Annie and Charlie Jones reportedly in July of 1876. CJ's father was hereditary chief of Pacheedaht, and bestowed the title to CJ's eldest brother Willie. CJ inherited the title himself in 1921 after his brother's passing. CJ had four children with his second wife, Elsie Doras. His third wife, Ida (née Daniels), married CJ in 1919 and they had seven children together at their home on Pacheedaht IR1. Hereditary chief title was passed to his third eldest son, Charles Jones Jr. (ChJ), who continues as chief of Pacheedaht today.

CJ and his wife Ida (IJ) participated in some earlier interviews which were included in this study. As well, the experiences of CJ's children, grandchildren, and other extended family members are based on cultural knowledge passed on in CJ's teachings. For these reasons CJ and IJ have been included as informants for this study.

DJ **Dan Jones**. Born in 1937, DJ was born to parents Ida Jones (née Daniels) and Charles Jones Sr. of Pacheedaht. DJ and his six siblings were raised on the Pacheedaht Reserves IR1 and IR2 at Port Renfrew. He is married to Donnabella Jones and they resided on IR2. DJ contributed memories of hunting and fishing with family and community members from his youth to present day.

DaJ **Dave Jones.** Born in 1952, DaJ is the son of Helena Joe of Pauquachin, and Raymond Jones of Pacheedaht. DaJ's paternal grandparents were Joseph Jones and Joseph's second wife, Ada Jack. Helena and Raymond had six children. DJ contributed information recalled from his youth on seafooding, fishing, and hunting with his extended family. He continues to reside on IR #2.

IJ **Ida Jones (née Daniels).** IJ was born in 1894 into the Ditidaht Nation. In 1919, she became the third wife of Charles Jones Sr. (CJ) of Pacheedaht. They raised seven children together on IR1 and IR2 at Port Renfrew. Before IJ passed away in 1997, she contributed her ethnobotanical knowledge to Dr. Nancy Turner's book on the ethnobotany of the Nitinaht. Along with her husband CJ, IJ's son from a previous marriage, John Thomas, was also a major contributor to Turner's book.

JJ **Jeff Jones.** JJ was born in 1969 to Arthur Jones of Pacheedaht and his third wife Mary Clara (née Charlie). He has nine siblings. JJ is a Pacheedaht band councillor and is heavily involved with the fisheries programmes at Port Renfrew.

During his youth, JJ participated in fishing, seafooding, and hunting with his father and other male family members, and continues these activities today. He is active in food fishing for the Pacheedaht as a community. JJ has greatly contributed to the knowledge of contemporary use of Pacheedaht land and resources.

JPJ **John Paul Jones.** JPJ was born in 1950 to Walter Jones and Mary Youkum. While his ties to the community keep JPJ closely connected to Pacheedaht, he has lived in the territory for brief periods during his life.

KaJ **Karen "Sammy" Jones.** KaJ has recently moved back to Vancouver Island, but has spent a great deal of time away from the Pacheedaht territory. She lived on IR2 for five years with her previous husband, Dave Jones.

KJ **Ken Jones**. KJ was born in 1941 to parents Ida Jones (née Daniels) and Charlie Jones Sr. KJ married Mercena (née Louie) and they had two children. Ken attended Alberni Indian Residential School from 1948-1949 for first and second grade and then attended Renfrew school in 1950, he completed grade nine at Esquimalt High, but left in grade ten to work in the logging industry. He worked for the B.C. Forest Company, logging on the San Juan River. Ken Jones married his wife Mercena in 1964. They lived in Victoria until 1966, when they returned full time to Port Renfrew. Ken entered band politics as a councillor in 1966, when he was 25 years old. He ran again for councilor, he served chief councilor for period of time. Interviews conducted with KJ before his death were included in the study.

LJ **Lawrence Jones.** ***ḵa.šaye.*** was born in 1931 to parents Ada Jack and Joseph Jones of Pacheedaht. LJ is one of seven children. His brother WJ was also an informant for this study. Prior to an injury in 1953, LJ was active in hunting and fishing in the area and he provided the study with information of cultural land use from this time.

MPJ **Marvin P. Jones.** MPJ was born in 1960 to parents Margaret Jones and Wesley Jones of Pacheedaht. He was raised on IR2 at Port Renfrew and has lived in the area for most of his life. MPJ has considerable knowledge of the territory from hunting and fishing with his father over the years. He has also spent some years working in the logging industry in Port Renfrew, and is aware of changes that have occurred in the environment over time.

MJ **Mary Jones (née Youkum)**. Born in 1914 in Port Alberni, MJ's family is from Tseshaht. She married Walter Jones of Pacheedaht, moved to Port Renfrew in

1935 and has remained there ever since. MJ raised her children on the Pacheedaht reserves and has many other close ties to the Pacheedaht community. MJ remembers much of the Tseshaht and Pacheedaht languages.

MCJ Mary Clara Jones (née Charlie). Born in 1932, wi.ƛ'i.ċaχ is originally from Hope, B.C. She married Arthur Jones of Pacheedaht, and in 1949, came to live on reserve at Port Renfrew. She raised nine children on IR2.

RbJ Robert Jones. RJ was born in 1938 to parents Mary Jones (née Youkum) and Walter Jones of Pacheedaht. He is a long term resident of the Pacheedaht territory, coming and going over the years but always returning to his home on the Gordon River IR2. RJ has many memories of hunting and fishing in Pacheedaht territory and continues to food fish for his community.

RoJ Roberta Jones (née Bosustow). RoJ came to Port Renfrew when she married Pacheedaht member Charles Jones Jr. in 1968. RoJ spent a great deal of time with her husband's parents, especially her mother-in-law, Ida Jones, and recalls traditional information passed on to her from Ida Jones. RoJ and ChJ continue to live on IR2.

ShJ Shirley Jones. Born in 1962 to father Robert Jones of Pacheedaht. ShJ moved back to IR2 early in the 1990's.

TJ Tim Jones. TJ was born in 1958 to parents Caroline Charles of Songhees and Stanley Jones of Pacheedaht. TJ's family moved away from the Pacheedaht reserves when he was eight years old, and during the occassional spring or summer holiday he would return to the area to visit family. TJ moved back to IR2 permamently in the early 1990s and now resides in Vancouver.

ToJ Tom Jones. ToJ was born in 1917 to parents Chief Charles Jones Sr. and his second wife, Elsie Doras. ToJ spent much of his childhood hunting and fishing in the area, but moved away in his late teens and has spent the majority of his years away from Port Renfrew. He currently resides in Port Alberni.

WaJ Wayne Jones. Born in 1967, WaJ's parents are Arthur Jones of Pacheedaht and Mary Clara (née Charlie). WaJ has eight siblings, and resides on IR2. In his youth, WaJ used to accompany his father on hunting and fishing trips.

WJ Wesley Jones. *mišaši.qʷ* was born in 1930 to Joseph Jones of Pacheedaht and Joseph's second wife, Ada Jack. WJ has six siblings. He married Margaret Peters of Port Alberni in 1958, and they had five children. Their son Marvin Jones (MPJ) also participated in this study as an informant. WJ spent his school years at Ahousaht Residential School until it burned down in 1936, then was taken to Alberni Indian Residential School, and in the summers went with his mother to pick berries in the U.S., gather seaweed, or to the fish canneries at Port Albion and Esquimalt. He later returned to Port Renfrew to work in logging until

an injury in 1972. He continues to reside at IR2. WJ's knowledge of the Pacheedaht territory is a result of his hunting, seafooding and fishing excursions with extended family, from his youth and continuing into the present.

EJ **Edith Joseph.** Born in 1916 at Clo-oose, EJ's father was James Thomas and her mother Ida Daniels, who later married Charlie Jones Sr. of Pacheedaht. EJ's mother moved her three children - EJ, Flora Charles, and John Thomas - to the Port Renfrew reserve when EJ was still young, and EJ stayed there until her teens, leaving to attend residential school in Chilliwack. She is knowledgeable in the cultural tasks of plant collection and baskestry. EJ's sister Flora Charles (FC) also participated as an informant in this study.

SM **Stella Matkin.** SM was born in 1933 to parents Charlie Jones Sr. and his third wife Ida Jones (née Daniels). One of seven children, SM has lived on both IR1 and IR2 at Port Renfrew. After attending residential school she returned to the Pacheedaht reserve until she married in 1955. SM moved to Victoria and raised four children but continued to return to Pacheedaht for the summer fish camps and other seasonal tasks. She returned to permanently reside on IR1. SM has considerable knowledge of plant collection, basketry, and processing fish.

MM **Marvin McClurg.** MM was born in Chilliwack in 1931 to Beatrice Jones of Pacheedaht and Jack Graves from New England. His maternal grandparents were Helen Jones and Joseph Jones, the brother of Charlie Jones Sr. MM is the eldest of eight children. He spent his youth between Port Renfrew and Nitinat living with extended family. Later, his mother remarried to Charles McClurg and the family moved to Seattle around 1946. MM married Edna Robinson from Nitinat in 1952 and had six sons. MM returned to Port Renfrew in 1992 after retiring from work in Seattle, and held the position of Chief Councillor for many years.

HaP **Harry Peters. c̓awa.wanʔis** was born in Port Renfrew, married Hazel Peters in 1960. He and his wife have lived in Seattle since 1962, but return frequently to Pacheedaht and Ditidaht territory.

HP **Hazel Peters (née Jack). ʔuksy̓a.qʷisʔat**, was born in 1933 in Nitinat to parents Ada Jack (née Edgar) and Gordon Jack. Her paternal grandparents were Lucy Jack, **xabi**, and Willy Jack, **ʔu.di.** who she lived with for a time in Port Renfrew. HP is the mother of Roy "Butch" Jack, who was born in 1954 and lives in Port Renfrew. HP married Harry Peters of Port Renfrew in 1960 and they had three children. Their son, Michael Peters, lives in Port Renfrew with his wife Colleen Peters.

Early on, HP lived on IR1 at Harris Cove with family members including her grandmother and her "auntie" Lena Johnson. HP and her husband moved to Seattle permanently in 1962. Heavy ties to Pacheedaht and Nitinat have brought them back to both areas over the years, but HP's memories are mainly from her youth spent between family in these areas.

MP **Marg Peters. sčaqtuk**, and her sister, Sally Peters, lived for a time in Pacheedaht with their uncle, Siam Peter, and grandfather, Chief Peter. MP currently lives in Nitinat.

SP **Sally Peters.** SP was born at Whyac in 1933. She and her sister Marg Peters lived for a while in Pacheedaht, with their uncle, Siam Peter, and grandfather, Chief Peter. SP left to attend residential school, and afterward returned to the Ditidaht territory, where she continues to live.

JeT **Jenny Thomas (née Jones).** JT was born to Helena (Lena) Jones and Raymond Jones of Pacheedaht. JT returned to live in Pacheedaht in 1976, after spending some years in Ahousaht. She remembers details of daily life in the Pacheedaht area during her youth, and has participated in crabbing and gathering seafood.

JT **John Thomas. ƛ'i.cs̆al** was born in 1913 at Clo-oose in Nitinaht territory. His mother was Ida Jones (née Daniels) and his stepfather was Charlie Jones Sr. of Pacheedaht. JT was fluent in the Ditidaht language and contributed greatly in recording his culture by sharing his ethnobotanical knowledge in the book by Dr. Nancy Turner.

NT **Dr. Nancy Turner.** NT provided ethnobotanical information of the Ditidaht and Pacheedaht peoples through her work with elders Ida Jones and John Thomas. Along with fieldnotes and her published book, Ethnobotany of the Nitinaht Indians of Vancouver Island, NT also contributed as an informant to this study, recounting knowledge learned from IJ and JT about the Pacheedaht territory.

Interviewees, 2013 – 2014

In the interests of consistency, biographical summaries for the Pacheedaht members interviewed during 2013 and 2014 for information about traditional use and occupancy sites is presented in a fashion similar to that for the people interviewed for the 1997 – 1999 Pacheedaht TUS project, above. Some of the people interviewed are the same as those interviewed for the earlier project; their information has been updated. It is noted again that the 1997 – 1999 Pacheedaht TUS project primarily gathered information concerning activities and sites for land resources; the 2013-2014 interviews included many question concerning marine resources and harvesting activities. Additional interviews with other Pacheedaht members are planned.

AJ **Adelaine Jack**- AJ was born in 1967 to parents Benjamin Jack of Pacheedaht and Nora Simpson. AJ moved to Pacheedaht when she was about 13 years old and she has lived in Pacheedaht ever since.

AJ's family on both her mother and father's side are very cultural. She learned a lot of knowledge about the Pacheedaht traditional territory and language from her granny Ada. She has organized drumming and dance practices so she could share her knowledge with her children and other children from the community. AJ has engaged in seafood harvesting at various locations. She went on a number of

hunting trips when she was younger. AJ has gone berry picking throughout Pacheedaht territory. AJ continues to share her traditional knowledge with the younger generations and still uses these resources to the current date of 2014.

CC **Carlson Charlie Sr. (hayuupis).**

CJ **Candice Jack**- CJ was born in 1986 to parents Adelaine Jack and David Jones. CJ was born in Victoria, but has lived in Pacheedaht all her life. CJ learned about Pacheedaht territory and culture from her mom, dad and uncles. She worked with the Pacheedaht Heritage Project in 2013, and more recently has worked at the Pacheedaht Campground.

Candice went berry picking with her father when she was younger and now she takes her son out berry picking. She has gone fwith her Uncle Jeff and Aunty Helen on many occasions to get fish and seafood for the community events. CJ goes out seafood harvesting with her Dad and her Uncle Dennis for personal use. She still uses these resources to the current date of 2014.

BJ **William (Bill) Jones**- Born in 1940 to parents Mary Jones (nee Youkum) of Tseshaht and Walter Jones of Pacheedaht. BJ is the third eldest of nine children. BJ's paternal grandparents were Charlie Jones Sr. and his second wife, Elsie Doras. BJ spent his youth between Residential School in Port Alberni and public school in Port Renfrew. He has lived on IR#2 on and off and returned permanently in 1995.

BJ recollects hunting and fishing in the Pacheedaht territory with his father, uncles and brothers when he was younger. Through his close contact with the community and area over the years BJ has observed numerous cultural and environmental changes.

FJ **Frank Jones-** FJ was born in Campbell River in 1973. His parents are Charles Jones and Roberta Jones and his grandparents are Charlie "Queesto" Jones and Ida Jones. FJ comes from a line of hereditary chiefs. He moved to Pacheedaht when he was only 8 months and has lived in Pacheedaht for the majority of his life. He started working in the forest industry at a young age and is still working in forestry to this day.

FJ remembers his grandfather Charlie "Queesto" Jones telling him stories about whale hunting, when he was a young child. FJ went out hunting for deer and elk with his father a few times; they would be gone for hours. FJ has been involved in fishing and seafood harvesting all throughout his life and is still involved to this day.

DJ **Darrell Jones –** DJ was born in 1958 to parents Raymond Jones of Pacheedaht and Helena Joe. DJ's paternal grandparents are Joseph Jones of Pacheedaht and Ida Jones. DJ has lived in Pacheedaht for most of his life. He started working in

the forest industry with BC Forest Products in 1977 and he worked for this company for 31 years. DJ is now retired from forestry and currently works at the Pacheedaht Campground.

DJ has hunted deer and elk throughout the Pacheedaht territory all his life. He has been much involved in fishing and seafood harvesting. He helped the community harvest the fish and seafood for community events, as well as going out for personal harvesting. He still lives in Pacheedaht and utilizes marine and land resources to the current date.

MPJ **Marvin Jones-** MPJ was born in 1960 to parents Wesley Jones of Pacheedaht and Margaret Peters. MPJ's grandparents were Joseph Jones and Ada Gibbs. Marvin has lived in Pacheedaht for most of his life and started working in the forest industry for BCFP, WFP, and other companies at a young age.

MPJ remembers growing up with his granny Ada on Pacheedaht IR#1. He gained a lot of his knowledge of the territory from his Granny Ada, his father, as well as his uncle Arthur Jones. Marvin would go out hunting all the time with his father and uncles. He has been engaged in a lot of fishing, seafood harvesting, and duck hunting in the territory. His grandmother used to take him with her while she would harvest grass for weaving baskets and mats, etc. He was involved in berry picking all throughout the territory, as well. MPJ still lives in Pacheedaht and utilizes these resources to the current date of 2014.

TJ **Timothy Jones-** TJ was born in Victoria to parents Stanley Jones of Pacheedaht and Caroline Charles of Beecher Bay. Tim moved away from Pacheedaht at a young age to go to school. He moved several times since, and has worked at a variety of jobs. He returned to the Pacheedaht in 1995 when he was hired to work in the Treaty Department. He moved back to Vancouver in 2005 and his lived there since that time.

TJ remembers his granny Ida telling him many stories, repeating them many times, pointing out important sites in the traditional territory and teaching him about traditional ways. He used to go out cedar and grass harvesting all the time with his granny. TJ remembers going up the San Juan and Gordon Rivers in a canoe with his dad and uncle to go fishing and hunting. TJ was involved as well in seafood harvesting and crabbing with his dad and uncles. He recalls his father telling him stories of when Pacheedaht ancestors went out whale hunting and the rituals they had to perform in order to prepare for this important activity. When TJ comes to visit Pacheedaht he still enjoys fishing and harvesting activities.

DM **Daniel McClurg-** DM was born in Seattle, Washington in 1964; Marvin McClurg is his father. DJ moved to Pacheedaht in 1991 and he started to learn all about the Pacheedaht territory from the elders and resource users in the community. He has been heavily involved in fishing, crabbing and forestry.

DM enjoyed going out in a boat and spending the day with the elders. They showed him all the good spots for fishing, crabbing and seafood harvesting. DM has always loved being on the water, so he bought his own boat, and now goes out on the water all the time. DM now brings out family and community members to fish, crab, and harvest seafood, and frequently brings back enough food to share with his family and other community members. DM is very much involved in resource harvesting at the present time.

MM **Marvin McClurg-** MM was born in 1931 to parents Beatrice Jones of Pacheedaht and Jack Graves. He moved to Pacheedaht in 1936 and lived on Pacheedaht IR#1. At the age of 15, MM joined the logging camp in Port Renfrew in 1946 up until 1948 when he left to Seattle. MM did not return to Pacheedaht until 1993, which is when he got his status card back. He retired and moved back to Pacheedaht and was elected as chief and councillor, which lasted for 16 years on and off. He was chief up until this last election in January 2014.

MM remembers going camping several decades ago to harvest seaweed and dry it, so they could sell it in Victoria. He used to go deer hunting throughout the traditional territory with his uncles, as well as seal hunting. MM was also involved in seafood harvesting, he would camp out for a couple days while engaged in this activity.

NS **Nora Simpson**- NS is originally from Ahousat. She married Benjamin Jack of Pacheedaht in 1959 and she moved to Pacheedaht. She had 5 children with him. She lived in Pacheedaht up until 1970 and the she moved to Victoria. NS moved back to Pacheedaht in 1991, where she met her common-law partner Marvin McClurg and she still lives in Pacheedaht to the current date of 2014.

NS remembers camping out for a couple days at a time while they were seafood harvesting. She was involved in smelting all along the beach between the San Juan and Gordon River. Up the Gordon River NS and a couple other ladies from Pacheedaht used to catch fish with a spear. NS went out crabbing several times as well.

JJ **A. Jeffery Jones-** JJ was born in 1969 to parents Arthur Jones of Pacheedaht and Mary Clara Jones. He grew up and lived in Pacheedaht for most of his life. JJ spent all his life working in fisheries, right from his early teens. He joined the Aboriginal Fisheries Program in 1992. JJ is now the head of the Fisheries Department in Pacheedaht, as well as elected councilor for Pacheedaht, as of January 2014.

JJ learned most of his knowledge of the Pacheedaht territory: land and water, from his father. He has fished in all the waters of the Pacheedaht territory. His job involves swimming the rivers to conduct fish counts, as well as harvesting the fish for the community. He is strongly involved in seafood harvesting, as well as crabbing for community events and personal use. JJ has gone out deer and elk

hunting with his cousins throughout the traditional territory. JJ participates in helicopter flights to count the elk herds, so he can get a number on how many elk can be harvested by the community each year. JJ has been involved in cedar bark harvesting throughout the territory. JJ still uses and harvests many resources in Pacheedaht territory to the current date of 2014.

HJ **Helen Jones-** Helen Jones was hired by Pacheedaht in 1992 as the Manager of the Fisheries Department. She has been involved in numerous projects in the rivers in Pacheedaht territory and has worked with DFO and BC Hydro around fisheries projects. HJ also did Creel surveys. HJ married Jeff Jones and they both work together in the fisheries department. Helen still lives in Pacheedaht.

HJ has spent a lot of time with the Pacheedaht elders and has sought and obtained a lot of the knowledge about the traditional territory and its resources. She recollects Chuck Jones and Charlie "Queesto" Jones telling her stories from when they would go out whale and seal hunting. She has been involved in a lot of community fishing, crabbing, and seafood harvesting. She has also participated in a lot of berry picking with the young kids of Pacheedaht, in various locations of the traditional territory. HJ swims the rivers within the Pacheedaht territory, counting the fish, so the Fisheries Department can get an idea on what the community may be able to harvest for the year. HJ is still the Manager of the Fisheries Department to the current date of 2014.

Interview Methodology, 2013-2014

Interviews with Pacheedaht Elders and Knowledge Holders were established as the primary source of information for the Pacheedaht TMUOS. At the project startup meetings, it was established that the priority for project interviews was to be Pacheedaht members who were known to be currently active marine resource users, or those who were known to have been engaged in harvesting activities in the period of the 1990s to the present. A target number of people to interview, given the short time frame for the project, was initially set at between 10 - 15 Pacheedaht members. Interviews with 20 Pacheedaht members have been completed and groundtruthing field trips on foot have been undertaken to Sombrio Beach, Botanical Beach, Jordon River, Gordon River, IR #1 Pacheena, IR #2 Gordon River, and by boat to IR #3 *Qala:yit*, and Bonilla Point. Pacheedaht First Nation membership currently includes 259 people.

Project interviews were conducted in every instance with individual Pacheedaht members. All groundtruthing trips included several people. The names of the people interviewed during the current project, and during the Pacheedaht TUS project in the late 1990s, are listed on the Credits page at the front of this report. Individual biographies for many of the people interviewed were provided in the Preliminary Report submitted in February of 2014.

Each initial interview appointment with a Pacheedaht member started with a discussion of the purposes of the Pacheedaht TMUOS Project, as well as an outline of the Trans Mountain Pipeline Expansion project, the route of the proposed tanker traffic, a review of the topics to be discussed during the interview, the types of questions to be asked, and

how the resulting information would be managed. Project Consent Forms were reviewed with each interviewee, and these were signed and witnessed before each interview started.

Once initial discussions were completed and a Consent Form had been signed, the interview recording equipment was set up and the interview commenced. For most sessions, the process of discussing the interview and setting up equipment usually required at least half an hour before the actual interview began. Interview sessions ranged in total length from 2 hours to 4 hours, with actual recorded interview time ranging from 90 minutes to 3.5 hours. In some instances, interviews extended over more than one session. Most interviews were paused at one-hour intervals in order to prevent fatigue. Several interview sessions were halted for comfort breaks that included meals, coffee, and snacks. Interviewees were provided with an honorarium at the end of each interview.

Each initial interview session with an individual began with questions about personal background and history, with a focus being directed on how the interviewee had learned about Pacheedaht history, culture and territory; where they had lived in Pacheedaht territory; and what types of traditional activities they had engaged in or were currently pursuing. After life history information had been provided, interviewees were then requested to provide details of their knowledge about Traditional Marine Use and Occupancy Sites for each of the topics identified below, and for the "Activities" defined later.

The primary goal of project interviews was to obtain information about the location of Traditional Marine Use and Occupancy Sites, the activities occurring at each, and the types of resources collected. An interview guide, organized by the topics listed below, was referenced during the course of interviews, in preference to a formal list of set questions that were to be asked of all people interviewed. The interviewees were posed open-ended questions concerning each topic, and were encouraged to provide information following their own preference, at their own pace and manner, and as they considered appropriate. Follow-up questions were also posed, seeking additional information on significant points and details in the course of the interview. Some interviewees declined to respond to particular topics or provide information about some sites.

The people interviewed have a wealth of information acquired over lifetimes of experience while engaged in fishing, hunting, plant gathering, seafood gathering, berry picking, cedar bark gathering and in traditional cultural activities. Most of the people interviewed had spent much of their early years with parents, elders and relatives out on the territory engaged in traditional activities, and have continued to pursue these activities later in life. The information obtained through the project interviews and groundtruthing trips is detailed and reliable.

List of Interview Topics (alphabetical order):

Archaeological Sites	Hunting
Berry/Plant Gathering	Legendary Being
Burials	Medical/Therapeutic Site
Ceremonial/Sacred Sites	Named Places
Conflicts	Preparation
Dwelling	Resource Material
Farming	Traditional History
Fishing	Trails/Travel
Aboriginal Forestry	Trapping
Gardening	Water Supply

Each interview session was assigned a unique alphanumeric code. Following on the system used during the Pacheedaht TUS project during the 1990s, each interview session was assigned a unique alphanumeric code, which started with PFN001, PFN002, etc.; the most recent interview being numbered PFN088. Each interview session for the TMUOS was conducted with its own set of paper maps (described later), used for recording the locations of Traditional Marine Use and Occupancy Sites during the interview, and each interview map set, the interview notes, and interview transcripts were catalogued based on the unique interview code described above.

Interview questioning and discussions about traditional use and occupancy sites focused on eliciting information about:

- each site's geographic location
- each site's cActivities"
- each site's cEntities"nt
- how the interviewee knew or learned about the sites
- other information about the site

Follow-up questions were focused on obtaining specific details about when sites are used; the frequency with which they are used; the quantities or quality of resources harvested, changes over time, how the resources are consumed or used, and associated details about traditional use and occupancy activities at the location.

The locations of Traditional Marine Use and Occupancy sites were plotted in pencil on the paper interview maps as points, lines or polygons as appropriate. Interviewees were consulted about the accuracy of the mapping of sites as they were plotted. When necessary, mapped features would be erased and corrected based on comments from interview respondents.

Unique sets of interview maps were provided for each interview and groundtruthing session. The mapping of all sites was accomplished to the precision possible, based on the interviewer's and interviewee's ability to identify, describe, and depict the locations

of the sites on the interview maps. In a few instances, when site locations could only be roughly mapped, they were so noted during interview.

Special working maps were created for use during the TMUOS project interviews by Hillcrest Geographics, and for the plotting of traditional use and occupancy sites. These maps represent and cover the following areas:

Pacheedaht Territory East 1:40,000 scale
Pacheedaht Territory West 1:40,000 scale
Pacheedaht Territory, Marine Portion – 1:60,000 scale

For some interviews additional information was plotted on purchased copies of Canadian Hydrographic Charts for areas not covered by the above maps.

Each site was identified on the interview maps by sequential numbering in the order it was recorded; starting at "01" for each interview session. The mapped location for each site is identified in the interview video, in interview notes and transcripts, and in the TMUOS Database, described later, by a unique alphanumeric code, as in the following examples:

- PFN080:01 - being the first site recorded during interview session PFN080;
- PFN075:024 - being the twenty-fourth site recorded during interview session PFN075

In addition to the standard interview sessions, some groundtruthing trips were conducted during the 2013-2014 project. There were several on foot trips, in which five Pacheedaht members, each also interviewed separately, visited Sombrio Beach, Botanical Beach, Jordon River, Gordon River watershed, IR #1 Pacheena, and IR #2 Gordon River. There was also a trip guided by Pacheedaht members, on a band owned boat that took five Pacheedaht members out to IR #3 Cullite (*Qala:yit*) and to the vicinity of Bonilla Point and Carmanah Point. The groundtruthing trips allowed opportunities for confirming or refining site locations, for recording of sites with photography and video, and for video recording information from the groundtruthing participants. The groundtruthing trips were successful and productive, as the Pacheedaht participants provided information during each of the trips.

TMUOS Document and Records Management

Pacheedaht Heritage Project Document Collection

The Pacheedaht Heritage Project has compiled, over the last two years, information from an array of archival, published and unpublished documents, including many records that are specific to Pacheedaht, such as interviews with Pacheedaht members. Some information about Pacheedaht traditional use and occupancy sites was derived from these records.

The bibliographic software program EndNote was used to record information and manage the references relevant to Pacheedaht history, culture and resource use.

Wherever possible, scanned PDF versions of documents have been embedded in the bibliography, which is a part of the Pacheedaht Heritage Project Document Collection. A sample of some documents available is listed in the References section of this report.

Digital Recording of Interviews and Groundtruthing Trips

Project interviews and groundtruthing trips were documented by means of high definition digital video, interview notes, and on interview maps. Digital copies of interview videos were made for interview transcription, reference and archiving with Pacheedaht Heritage Project.

Interview Notes

Each interview was documented at the time of recording by means of notes taken by members of the project team. Interview notes were kept in case of recording equipment malfunction, and were also used for the initial entry of information into the project's database, and prior to the completion of interview transcripts. All interview notes were scanned and digital copies are included in the project's records.

Interview Transcripts

The project interviews were transcribed by project team members or by professional transcribers. Copies of interview notes and transcripts were referenced while entering information into the project's TUOS database.

Interview Maps

The locations of Traditional Marine Use and Occupancy Sites identified during interviews were plotted in pencil on interview maps as previously described.

Each interview map was printed with areas for recording the following information:

1. **Interviewee(s):** Signature(s) of people interviewed whose Traditional Marine Use and Occupancy Sites are recorded on the map.
2. **Interviewer:** Signature of the person conducting the interview.
3. **Witness(es):** Signature of people who witnessed the interview (interview note-taker).
4. **Date(s):** Date(s) on which the interview occurred.
5. **Catalogue Number:** A unique alphanumeric code assigned each interview map

The Pacheedaht TMUOS paper interview maps are archived with Pacheedaht Heritage Project.

Traditional Use and Occupancy Site Database

The Pacheedaht Traditional Use and Occupancy Site Database is the primary tool for recording and managing information for the Traditional Marine Use and Occupancy Sites identified during the project. The database was established during the Pacheedaht Heritage project, using Filemaker Pro software.

Table 9 outlines a selection of the database fields that provide the most relevant information about the sites recorded during the project. The database facilitates querying

and analysis of Pacheedaht Traditional Marine Use and Occupancy Sites and the management and updating of information about sites.

Table 9: TMUOS Database Fields

Field Name	Description
PFN#	A unique catalogue number for each Traditional Marine Use and Occupancy Site.
Field ID	Other identification number(s) associated with a Traditional Marine Use and Occupancy Site, such as an Archaeological Site designation (DdSc-001), or a site number from a project interview (PFN075:012).
Description/Location	A verbal description of the geographic location of the site as well as pertinent details of site use and history
Pacheedaht Name	The native name of the site in Pacheedaht
Translation of Name	The English translation of the Pacheedaht name for the site (if available).
Activity	The classification of the site at the "Activity" level, as described in "Site Classification" (see below). A site may be classified for several "Activities."
Entity	The specific resources or items found, harvested or used at the site, as described in "Site Classification" (see below). A site may include several "Entities."
Category	Category type(s) for the site, as described in "Site Classification" (report section below). A site may be included in more than one "Category."
References	The name or names of the people interviewed who provided information about the site, or other sources of information about the site.
Date Modified	Date on which last data entry occurred for a site record.
Comments	Commentary about site beyond that included in other fields.

Project GIS, Mapping Protocols and Maps

The locations of Pacheedaht Traditional Marine Use and Occupancy Sites were recorded on maps from project interviews and from information recorded during the earlier Pacheedaht TUS project in the late 1990s. The digitization of information from the project's interviews was accomplished in ESRI's ArcGIS software by Simon Norris of Hillcrest Geographics and by Pamela Williams.

All Traditional Marine Use and Occupancy Site locations recorded in the project's GIS are linked to the sites recorded in the project's Traditional Use and Occupancy Site Database by the "PFN#" field.

Traditional Marine Use and Occupancy Site Classification

All TMUOS sites recorded in the project's GIS and Database primarily use three database fields (Activity; Entity; Category) for the purposes of data management, site analysis, and for presentation on the Project Maps. The TMUOS site database and associated GIS data can be searched and queried based on any of the fields, but most importantly on one or more of the three classification fields.

Activity

"Activity" defines, at a general level, a type of occupancy or use category for each site. An individual Traditional Marine Use and Occupancy Site's database entry may include more than one "Activity," as it may satisfy the criteria for one or more of the "Activities" listed in the table below. "Activities" at a Traditional Marine Use and Occupancy Site might include, for example: Dwelling; Seafood Gathering; Tribal History. Each of these terms describes an "Activity" described as occurring within the associated mapped Traditional Marine Use and Occupancy Site boundary.

Table 10 provides summary definitions for the Traditional Use and Occupancy Sites' "Activities."

Table 10: Activity Definitions

Activity	Description
Archaeological Site	Locations formally recorded as archaeological sites with the Archaeology Branch, Province of BC, or described in interview as including physical remains of Pacheedaht activities dating to 1846 or before.
Berry/Plant Gathering;	Locations where Pacheedaht gather or gathered plant or berries
Burial	Locations where remains of Pacheedaht people are known to be located, or previously located.
Canoe/Travel Route	A place, linear site or area that is used for travel, such as a canoe route, trail or stopover locations
Ceremonial/Sacred Site;	Locations described by Pacheedaht people as having spiritual or sacred qualities or used for traditional ceremonies or rites.
Conflict Site	Locations where battles occurred.

Activity	Description
Cultural Landform	A place associated with Pacheedaht boundaries, navigation or orientation.
Dwelling	Locations where Pacheedaht people reside(d) on a permanent or temporary basis, including villages, houses, cabins, tents, lean-tos and campsites.
Fishing	Locations used by Pacheedaht people for harvesting fish.
Forestry	Any place where forestry activity takes place, and where products for human use are obtained. (e.g. bark removal area, aboriginal logging area, etc.)
Gardening	A place or area used for horticulture and the growing of plants or vegetables
Hunting	Locations used for hunting birds or animals.
Indian Reserve	A place that has been given an Indian Reserve designation by the Federal Government, or a site located on a Reserve
Legendary Being	A location where legendary creatures such as Thunderbird, Sasquatch, etc. are known to frequent or where they have been sighted.
Manufacture	A location used for the manufacture of goods or structures, such as canoes, baskets, fish traps, etc.
Medical/Therapeutic	A place known for the presence of rare or abundant species of plants, or other materials, used in the treatment of illness, or a location known to have therapeutic qualities such as a hot spring.
Named Place	A named place is a topographical feature that has a Pacheedaht name.
Preparation	Locations where resources are customarily prepared by Pacheedaht people (e.g. smokehouse, clam processing, berry preservation, etc).
Resource Material	A location used for the collection of non-organic resources such as ochre, quartz, diatomaceous earth, basalt, etc.
Seafood Gathering	Places in the intertidal zone used for seafood collection; riverine locations for the collection of freshwater shellfish; and places for collecting fish spawn.
Trading	A location where trading between Pacheedaht and other people occurred on a regular basis.
Trapping	An area where animals were/are trapped on a regular basis, e.g. trapline
Traditional History	A site where tribal history events occurred (e.g. Origin history site, migration site)
Water Supply	A stream, spring, pond or other water source from where fresh water is or was regularly obtained.

Site Entity

The Traditional Marine Use and Occupancy Sites have also been classified at a more specific level, listing the various "Entities" recorded for each site. The "Entity" database field provides details of the resources harvested or features located at each site. For example, a site classified in the "Activity" field as a "Fishing" site might include the following entries in the "Entity" database field: Chinook Salmon; Coho Salmon; Lingcod; Red Snapper. The "Entity" field permits querying of the database for the number of sites based on a specific resource, species or use category.

Site Categories

All Traditional Marine Use and Occupancy Sites have been classified, at the most general level, according to six "Categories" that facilitate the presentation of information on the Project Maps. The Project Maps in the Final Report are presented according to the various TMUOS site "Categories" listed below. Traditional Use and Occupancy Sites are often multi-purpose, and may be classified under more than one "Activity," and thus appear on more than one "Category Map." The maps listed below are included in Appendix A of this report. All sites portrayed on the project maps are recorded in the PFN TUOS GIS database, and information related to each site is recorded in the PFN traditional use and occupancy site database.

Map 1: All Sites
Map 2: Aquatic Resources Sites
Map 3: Culture History Sites
Map 4: Land Resources Sites
Map 5: Settlement Activity Sites
Map 6: Archaeology Sites
Map 7: Travel Sites

An additional map has been created for Seafood (Intertidal) Gathering Sites as these sites are especially at risk in the event of an oil spill and associated cleanup operation. The sites shown on Map 8 are also portrayed on Category Map 2: Aquatic Resources Sites.

Map 8: Seafood (Intertidal) Gathering Sites

Traditional Use and Occupancy Site Analysis

There are currently 689 traditional use and occupancy sites in the Pacheedaht First Nation traditional use and occupancy site database, of which 500, comprising 73%, are intersected by the Project Study Area. The locations of all 500 traditional use and occupancy sites in the Study Area are portrayed on Map 1 in Appendix A.

Table 11 presents an analysis of the traditional use and occupancy sites in the TMUOS Study Area by "Category."

Table 11: Analysis of Traditional Use and Occupancy Sites in the Study Area by "Category"

Site "Category"	# of Sites	% of Sites in Study Area (n=500)
Aquatic Resources	303	61%
Culture History	174	35%
Land Resources	118	24%
Settlement Activity	109	22%
Archaeology	58	12%
Travel	56	11%

Table 12 presents an analysis of the 500 traditional use and occupancy sites intersected by the Study Area, and listed by "Activity" in descending order of frequency.

Table 12: Analysis of Traditional Use and Occupancy Sites in the Study Area by "Activity"

Site "Activity"	# of Sites	% of Sites in Study Area (n=500)
Fishing	214	43%
Named Place	136	27%
Seafood Gathering	101	20%
Dwelling	89	18%
Hunting	72	14%
Archaeological Site	61	12%
Berry/Plant Gathering	60	12%
Canoe/Travel Route	56	11%
Preparation	37	7%
Traditional History	33	7%
Ceremonial/Sacred Site	22	4%
Manufacture	21	4%
Forestry	20	4%
Burial	18	4%
Cultural Landform	17	3%
Indian Reserve	8	2%
Water Supply	8	2%
Resource Material	6	1%
Trapping	5	1%
Medical/Therapeutic Site	4	1%
Legendary Being Site	3	1%
Trading	3	1%
Environmental Feature	2	<1%

Site "Activity"	# of Sites	% of Sites in Study Area (n=500)
Gardening	2	<1%
Anchorage	1	<1%

Aquatic Resources Category Sites

Three hundred and three of the 500 sites in the Project Study Area are included in the "Aquatic Resources" Category. The 303 Aquatic Resources Category sites comprise 61% of the number of sites in the Study Area. Only those "Activities" with relevance to the Aquatic Resources Category are presented in Table 13. The locations of the Aquatic Resources Category sites in the Study Area are depicted on Map 2 in Appendix A. The locations of the 101 Seafood (Intertidal) Gathering Sites are depicted on Map 8 in Appendix A. A separate map has been provided for the Seafood Gathering sites as these are especially at risk in the event of an oil spill during cleanup operations.

Table 13: Analysis of "Aquatic Resources" Category sites in the RSA by related "Activity"

Site "Activity"	# of sites	% of Aquatic Resource Sites (n=303)
Fishing	214	71%
Seafood Gathering	101	33%
Dwelling	51	17%
Hunting	48	16%
Archaeological Site	25	8%
Environmental Feature	2	1%

Culture History Category Sites

One hundred and seventy-four of the 500 sites in the Project Study Area are included in the "Culture History" Category. The 174 Culture History Category sites comprise 61% of the number of sites in the Study Area. Only those "Activities" with relevance to the Culture History Category are presented in Table 14. The locations of the Culture History Category sites in the Study Area are depicted on Map 3 in Appendix A. The 174 Culture

History Category Sites fall within the definition provided by CEAA for "land or resource (e.g. an artifact, object or place) that is considered as heritage:"[129]

> A land or resource (e.g., an artifact, object or place) that is considered as heritage or any structure, site or thing is distinguished from other lands and resources by the value placed on it. The value of heritage or any structure, site or thing originates from its:

- Association with one or more important aspects of human history or culture;
- Historical, archaeological, paleontological or architectural significance; and
- Association with a particular group's practices, traditions or customs.

> Practices, traditions and customs are generally defined as follows:

- Practice: a way of doing something that is common, habitual or expected;
- Tradition: a custom, opinion or belief handed down primarily orally or by practice; and
- Custom: a particular, established way of behaving.

Table 14: Analysis of "Culture History" Category sites in the Study Area by related "Activity"

Site "Activity"	# of Sites	% of Culture History Sites (n=174)
Named Place	136	78%
Traditional History	33	19%
Ceremonial/Sacred Site	22	13%
Burial	18	10%
Medical/Therapeutic Site	4	2%
Legendary Being	3	2%

[129] Canadian Environmental Assessment Agency. "Technical Guidance for Assessing Physical and Cultural Heritage or Any Structure, Site or Thing That Is of Historical, Archeological, Paleontological or Architectural Significance under the Canadian Environmental Assessment Act, 2012 ". Ottawa, ON: CEAA, Government of Canada, 2014.

Land Resources Category Sites

One hundred and eighteen of the 500 sites in the Project Study Area are included in the "Land Resources" Category. The 118 Land Resources Category sites comprise 24% of the number of sites in the Study Area. . Only those "Activities" with relevance to the Land Resources Category are presented in Table 15. The locations of the Land Resources Category sites in the Study Area are depicted on Map 4 in Appendix A.

Table 15: Analysis of "Land Resources" Category sites in the Study Area by related "Activity"

Site "Activity"	# of Sites	% of Land Resources Sites (n=118)
Hunting	72	61%
Berry/Plant Gathering	57	48%
Dwelling	29	25%
Forestry	20	17%
Archaeological Site	15	13%
Preparation	14	12%
Manufacture	8	7%
Resource Material	6	5%
Trapping	5	4%
Gardening	2	2%

Settlement Activity Category Sites

One hundred and nine of the 500 sites in the Project Study Area are included in the "Settlement Activity" Category. The 109 Settlement Activity Category sites comprise 22% of the number of sites in the Study Area. Only those "Activities" with relevance to the Settlement Activity Category are presented in Table 16. The locations of the Settlement Activity Category sites in the Study Area are depicted on Map 5 in Appendix A.

Table 16: Analysis of "Settlement Activity" Category sites in the Study Area by related "Activity"

Site "Activity"	# of Sites	% of Settlement Activity Sites (n=109)
Dwelling	89	82%
Archaeological Site	53	49%
Fishing	42	39%
Named Place	40	37%
Preparation	37	34%
Seafood Gathering	26	24%
Burial	18	17%
Traditional History	16	15%
Manufacture	15	14%
Indian Reserve	6	6%
Gardening	2	2%

Archaeology Category Sites

Fifty-eight of the 500 sites in the Project Study Area are included in the "Archaeology" Category. The 58 Archaeology Category sites comprise 12% of the number of sites in the Study Area. The locations of the Archaeology Category sites in the Study Area are depicted on Map 6 in Appendix A. The 58 Archaeology Category Sites fall within the definition provided by CEAA for "land or resource (e.g. an artifact, object or place) that is considered as heritage" as outlined previously for the Culture History Category sites.[130]

Travel Category Sites

Fifty-six of the 500 sites in the Project Study Area are included in the "Travel" Category. The 56 Travel Category sites comprise 11% of the number of sites in the Study Area. The locations of the Archaeology Category sites in the Study Area are depicted on Map 7 in Appendix A.

[130] Canadian Environmental Assessment Agency, *Technical Guidance for Assessing Physical and Cultural Heritage*, 2014.

Report Summary

The general purpose of the PFN Traditional Marine Use and Occupancy Study is to research, record, map and describe locations, resources and activities of traditional importance to the Pacheedaht First Nation that could be affected by increased marine tanker traffic, or by an oil spill and its associated clean up operations, resulting from the proposed Trans Mountain Expansion Project (TMEP). This final report presents, in summary format, currently available information for PFN's traditional marine use and occupancy sites in the Study Area, as well as information about potential impacts of the proposed project on Pacheedaht's territory and interests. The report should not be viewed as comprehensive or definitive as additional research, interviewing and groundtruthing would undoubtedly uncover additional information.

Pacheedaht Territory is located on the southwest coast of Vancouver Island, generally bounded on the east at Sheringham Pt., and on the west at Bonilla Point; and extending inland to include the drainages of the rivers and streams on Vancouver Island between those two locations, and directly offshore from those two locations to the international border with the United States. The Pacheedaht also have aboriginal fishing and harvesting rights at *?'uöu:?a:* **(**Swiftsure Bank).

The Pacheedaht regard themselves as a distinct First Nation whose history in their territory extends back over many centuries. A summary history of Pacheedaht is presented in the report, as well as information about the locations of Pacheedaht villages and campsites. Historical records dating from the Contact and Colonial Periods record that Pacheedaht people have occupied their territory continuously, that their livelihood and economy was based primarily on marine resources, and that they traded in marine resources with other First Nation and with white explorers and traders.

At the confederation of British Columbia with Canada in 1871, responsibility for Indian Affairs, and for Marine and Fisheries resources, were assumed by the federal government, while the jurisdiction for other responsibilities were assumed by the provincial government. Early Indian Affairs reports describe the Pacheedaht as "toilers of the sea" who obtained their wealth from the ocean, and who had strict customs regarding territory and property. The federal and provincial governments established an Indian Reserve Commission that between 1882 and 1894 set aside four Indian Reserves for the Pacheedaht. The Reserve Commissioners were instructed to deal justly and reasonably with the Indians in the settlement of their Reserves, and that they should be secured in the possession of the villages, fishing stations, burial places and other settlements, and that fishing stations, fishing streams, and fishing grounds should be kept for the exclusive use of the Indians. The Indian Reserve Commissioner reserved for the Pacheedaht the right to fish in both lower branches of the San Juan River.

In the late 1800s and early 1900s, the Pacheedaht gained substantial livelihoods through fishing and hunting for marine resources that included fishing, hunting and gathering of salmon, halibut, seafood (intertidal gathering), dogfish, sea otters, whales and fur seals.

When the Royal Commission on Indian Affairs for the Province of BC visited Port Renfrew in 1914, Pacheedaht members complained about the size and number of their Reserves, and requested more lands, without success.

During traditional times, the Pacheedaht engaged in a seasonal round. During the spring they moved from inside villages to outside fishing camps to catch fish and hunt sea mammals. People would get sockeye from the San Juan and Gordon Rivers between late April and July, otherwise they remained in the outside resource camps until September when they would return to the inside rivers for the fall salmon runs: steelhead, coho, spring, pink and dog salmon which were processed for later consumption, green sturgeon were also obtained. Land and sea mammal hunting, and gathering of plants, berries and other resources occurred when resources were seasonally available, abundant or best to obtain. Seasonal movements were primarily motivated by the availability of marine resources and seafood.

Throughout the vast majority of their long history, Pacheedaht ancestors enjoyed unrestricted access to the wide variety of resources in the ocean, rivers and lands in their territory. They gained a wealth of knowledge about their territory based on direct personal observations and experiences. This wealth of information is today often referred to as Traditional Ecological Knowledge (TEK) and is generally considered distinct from "scientific knowledge." Tables of TEK information about resources located in, along or near the marine environment in Pacheedaht territory are presented in the report.

Since Contact, many developments and historic events have occurred to the Pacheedaht and within their territory that have had significant impacts on their traditional rights, as well as on the land and marine portions of their territory. The potential effects of the proposed project should be evaluated considering the context of previous developments and events. The cumulative effects include, but are not restricted to, topics described in the report, including:

- disease and depopulation after Contact;
- establishment of Indian Reserves and the corollary alienation of Pacheedaht lands and resources;
- loss of language, culture and traditions through Indian Residential Schools, anti-potlatch laws, and the efforts of missionaries and Indian Agents;
- industrial logging and associated environmental impacts;
- non-native settlement activities;
- hydroelectric and mining activities;
- acquisition of lands and marine areas for the establishment of federal, provincial and regional parks; and

- depletion of fisheries and other marine resources, and the imposition of fishing and marine harvesting regulations including loss of economic rights for harvesting of marine resources.

Any further reduction, of any magnitude, in Pacheedaht members' access to fisheries and intertidal resources, or further degradation of these resources, will comprise significant losses to Pacheedaht traditional marine harvesting activities and rights. Similarly, any further damage to or degradation of Pacheedaht cultural, archaeological, or other resource harvesting sites, or access to these sites, will also comprise significant losses.

The proposed TMEP project's tanker traffic, and the effects of an oil spill and associated cleanup operation, have the potential to impact Pacheedaht members' current and future harvesting and other rights in many ways. Some topics related to the potential impacts of the proposed project, as derived from available information about the TMEP, and as expressed by Pacheedaht members, are presented in the report including:

- information gaps in the TMEP application;
- marine pollution;
- ballast water;
- tanker acoustic and visual disturbance;
- tanker wakes and marine safety;
- risk of leaks or spills of diluted bitumen;
- status of WCMRC preparedness with respect to Pacheedaht territory;
- Transport Canada standards and changes in the shipping lanes in the Strait of Juan de Fuca; and
- recommendations for oil spill response planning;

Pacheedaht community members, staff, and representatives held several meetings concerning the TMEP, some involving representation from the TMEP Aboriginal Engagement Team, Transport Canada and WCMRC. A summary listing of some questions and comments that arose at those meetings are presented in the body of the report.

The report concludes with a presentation of information about the methodology and results of the project's research concerning Pacheedaht traditional marine use and occupancy sites located within the project Study Area. All traditional use and occupancy Sites have been classified, at the most general level, according to six "Categories," listed

below, that facilitate the presentation of information on the Project Maps provided in Appendix A of the report.

Map 1: All Sites
Map 2: Aquatic Resources Sites
Map 3: Culture History Sites
Map 4: Land Resources Sites
Map 5: Settlement Activity Sites
Map 6: Archaeology Sites
Map 7: Travel Sites
Map 8: Seafood (Intertidal Gathering) Sites.

There are currently 689 traditional use and occupancy sites documented in the Pacheedaht First Nation traditional use and occupancy site database, of which 500, comprising 73% of the total, are intersected by the Project Study Area. Analysis of the sites located in the Study Area according to site Categories and Activities is presented in the report. The locations of all 500 traditional use and occupancy sites in the Study Area are shown on the Project Maps in Appendix A.

Photographs

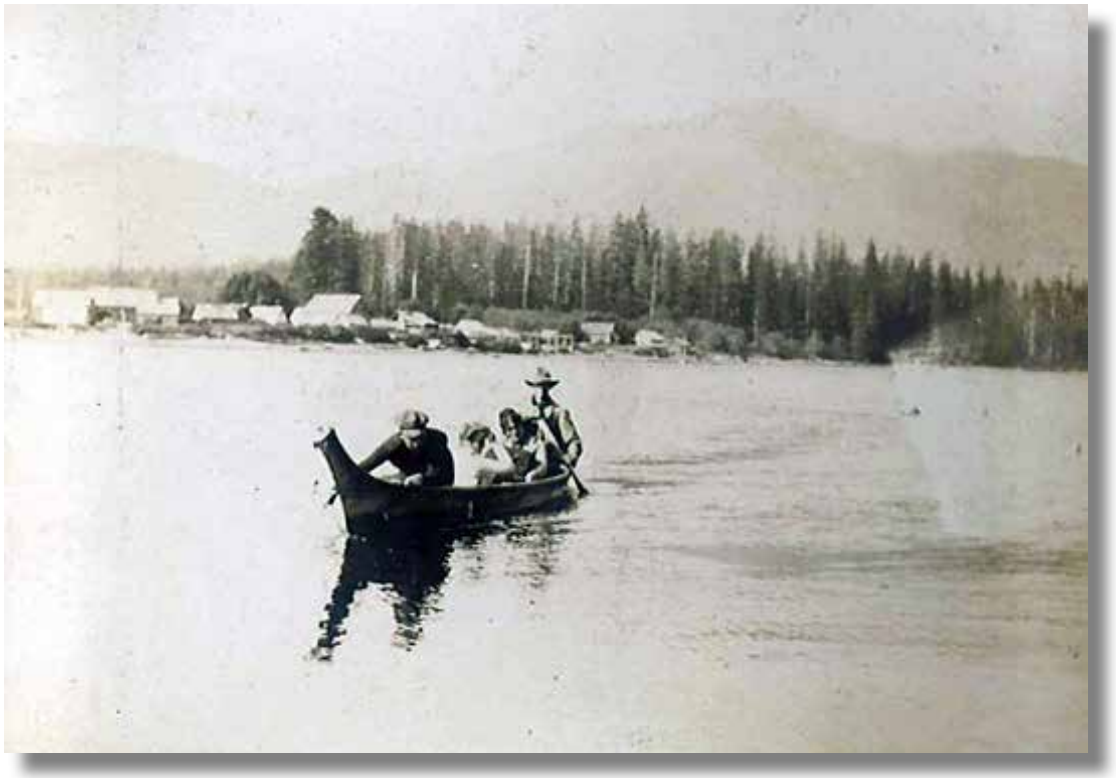

Figure 5: Photo of IR No. 1, Pacheena at the San Juan River ca. 1905 showing the traditional Pacheedaht village in the background. University of Minnesota Archives photo.

Figure 6: Photo of traditional Pacheedaht longhouse, with exterior wallplanks removed, at IR No. 1, Pacheena at the San Juan River ca. 1905. University of Minnesota Archives photo.

Figure 7: Photo taken near Botanical Beach of Pacheedaht man in canoe selling salmon to visitng researcher at Seaside Station near Botanical Beach. University of Minnesota Archives photo.

Figure 8: Photo of traditional Pacheedaht burial boxes in spruce tree, perhaps victims of smallpox or other epidemic, ca. 1905. University of Minnesota Archives photo.

Figure 9: Photo of IR No. 1, Pacheena at the San Juan River taken during 1914 during the visit of the Royal Commission of Indian Affairs for the Province of B.C. BC Archives photo.

Figure 10: Photo of Chief Charles Jones and family on his commercial fish boat ***Queesto****, ca 1945. l. to r. Charles Jones Jr., Stanley Jones, family friend, Gerald Jones, Hilda Jones, Stella Jones, Kenneth Jones, Charles Jones.*

Figure 11: Pacheedaht members continue to transfer fishery skills using contemporary knowledge and practices. Brent Charlie, Trent Jones, Jeff Jones, and Carlson Charlie III on a youth crabbing trip in Port San Juan, August 2013. Photo Helen Jones.

Figure 12: At dawn Pacheedaht comunity members harvesting the coho salmon run in the San Juan River, September 2013.

Figure 13: The nets are hauled by Pacheedaht members as part of the FSC fishery, September 2013.

Figure 14: Healthy catch, happy community, September 2013.

Figure 15: Roosevelt elk grazing in the intertidal estuary of the Gordon River at IR No. 2. Photo Helen Jones.

Figure 16: Sea lion rock located near IR No. 3 at Qula:yit; one of several sea lion rookeries that dot the coast in isolated areas, September 2013.

Figure 17: Pacheedaht FSC fishery at Swiftsure Bank; mature, highly prized Lingcod, August 2012.

Figure 18: Ann Jones holding her halibut catch out at Swiftsure Bank, August 2012.

Figure 19: Offshore bounty of halibut, rockfish and red snapper, August 2012.

Figure 20: Reeling in a big catch from the FSC restricted area on Swiftsure Bank, August 2012.

Figure 21: Purple sea urchins, or sea eggs, thriving in the west coast tide pools, September 2013.

Figure 22: Seafood harvested from Cerantes Rock of gooseneck barnacles, chitons, urchins, and crab, April 2013.

Figure 23: Pacheedaht youth admiring their traditional resource, September 2013.
Figure 24: Coho salmon fished for the Pacheedaht food, social, and ceremonial fishery from the San Juan River, IR No. 1, September 2013.
Figure 25: Ann Jones holding healthy Coho salmon, September 2013.
Figure 26: Coho salmon fished by community members with a gill net, September 2013.
Figure 27: Community members selecting the fish for processing, September 2013.

Figure 278 An example of intertidal diversity, including porphya sp., surf grass, sea lettuce, and barnacles, September 2013.

Figure 29: A frond of Porphyra, a highly valued species by both the Pacheedaht and the global market, September 2013 photo.

Figure 30: Killer whale pod seen outside Port San Juan, September 2013.

Figure 31: Whales near Qala:yit, the Pacheedaht whaling and fishing station, September 2013.

Figure 32: Grey whales surfacing near Carmanah; they return annually to this beach to rear young, and feed through the summer months, September 2013.

Figure 33: Grey Whales were hunted from Qala:yit by the Pacheedaht, a west coast whaling people. Whales are still an integral part of social and ceremonial structure, September 2013.

Figure 34: Photo of passing large vessel taken from Swiftsure Bank, 2013.
Figure 35: Industrial vessel travelling into the Juan de Fuca Strait, 2013.
Figure 36: Large vessels appear unexpectedly in foggy weather while offshore fishing out at Swiftsure Bank, 2013. Photos Helen Jones.

References Cited

Allan, Robyn. "Endangered Orcas Swim Along Kinder Morgan's Oil Tanker Route." *Vancouver Observer*, May 13, 2014.

Anderson, A.C. "Correspondence: A.C. Anderson, Inspector of Fisheries, to Minister of Marine and Fisheries, 3 January 1878." In *Library and Archives Canada. RG 10 v. 3651, f. 8540*. Ottawa, 1878.

Arima, Eugene. "Notes on the Southern West Coast (Nootka) Natives: Environment and Exploitative Techniques of the P'achi:da7ath of Port San Juan. ." In *Unpublished manuscript. National Historic Parks and Sites Branch, Parks Canada*. Ottawa; copy held at Archaeology Division, Royal British Columbia Museum, Victoria, 1976.

Arima, Eugene, Denis St. Claire, Louis Clamhouse, Joshua Edgar, Charles Jones, and John Thomas. "From Barkley Sound Southeast." In *Between Ports Alberni and Renfrew: Notes on West Coast Peoples. Canadian Ethnology Service, Mercury Series Paper*, 203-411. Hull, Quebec: Canadian Museum of Civilization, 1991.

Arima, Eugene, and John Dewhirst. "Nootkans of Vancouver Island." In *Handbook of North American Indians, Volume 7, Northwest Coast.*, edited by Wayne Suttles, 391- 411. Washington, D.C.: Smithsonian Institution, 1990.

Arima, Eugene, and Alan Hoover. *The Whaling People of the West Coast of Vancouver Island and Cape Flattery.* Victoria: Royal BC Museum, 2011.

Banfield, William E. "Vancouver Island: Its Topography, Characteristics, Etc.: Ii the Netinett District." *Victoria Gazette*, 14 August , 1858, p.1; 19 August, 1858, p.1; 28 August, 1858, p.1; 3 September, 1858, p.1; 9 September, 1858, p. 1 1858, 1.

Banfield, W.E., and Peter Francis. "Correspondence: Peter Francis and W.E. Banfield to James Douglas." Victoria BC: BC Archives, Colonial Correspondence, GR 1372, file 588a/2, 1855.

Bates, Ann M. "Affiliation and Differentiation: Intertribal Interactions among the Makah and Ditidaht Indians. Unpublished Phd Disseration." Indiana University, 1987.

B.C. Ministry of Forests, Aboriginal Affairs Branch. "Traditional Use Study Program Guidelines." Victoria, BC, 2001.

Blenkinsop, George. "Report to I.W. Powell, Commissioner of Indian Affairs, by G. Blenkinsop, 23 September, 1874." Ottawa: Department of Indian Affairs, RG 10, vol. 3614, file 4105, 1874.

Blood, Donald A. "Wildlife at Risk in British Columbia: Sea Otter." Victoria, BC: Province of British Columbia Ministry of Environment, Lands and Parks, 1993.

Bouchard, Randy. "Preliminary Notes on the Pacheenaht Indian Knowledge and Use of the Area between Jordan River and San Juan Point." In *Report prepared for I.R. Wilson Consultants Ltd. and BC Parks*. Victoria, 1994.

Brown, Robert. "Journal: Vancouver Island Exploration Expedition, 1864." In *BC Archives, Robert Brown Collection, Add Mss 794, Vol. 2, file 3 (c)*. Victoria, 1864.

Brown, Robert. "Introduction." In *The Adventures of John Jewitt*, edited by Robert

Brown. London: Clement Wilson, 1896.
Canadian Environmental Assessment Agency. " Technical Guidance for Assessing Physical and Cultural Heritage or Any Structure, Site or Thing That Is of Historical, Archeological, Paleontological or Architectural Significance under the Canadian Environmental Assessment Act, 2012 ". Ottawa, ON: CEAA, Government of Canada, 2014.
Carmichael, Alfred. "The Legend of the Flood According to the Ohyaht Tradition." In *Indian Legends of the West Coast of Vancouver Island (manuscript)*. Victoria: B.C. Archives, Add Mss. 2306, 1922.
Clutesi, George. "Potlatch." Sidney, BC: Gray's Publishing Ltd., 1969.
Cole, Douglas, and Ira Chaikin. "An Iron Hand Upon the People: The Law against the Potlatch on the Northwest Coast." Vancouver/Toronto: Douglas & MacIntyre, 1990.
Cote, Charlotte. *Spirits of Our Whaling Ancestors*. Seattle/Vancouver: University of Washington Press/UBC Press, 2010.
Dewhirst, John, and Ruben Wackley. "A Traditional Use Study of the Pachedaht First Nation Territory, Volume 1: Report (Draft). Prepared for the Aboriginal Affairs Branch, B.C. Ministry of Forests. Prepared by Pacheedaht First Nation, Port Renfrew, B.C.". Port Renfrew, B.C.: Pacheedaht First Nation/Archaeo Research Ltd., 1999.
Fisheries and Oceans Canada. "Port Renfrew (#8525) Tide Tables." Government of Canada, http://tides.gc.ca/eng/data/table/2014/wlev_ref/8525.
Fisheries and Oceans Canada. "Aquatic Invasive Species." Government of Canada, http://www.dfo-mpo.gc.ca/science/enviro/ais-eae/index-eng.htm.
Gibbs, George. "Indian Population of Vancouver's Island, 1856." Victoria, BC: BC Archives MS 518, 1856.
Godman, Josephine. *Pioneer Days of Port Renfrew*. Victoria: Solitaire Publications, 1973.
Guillod, Harry. "Report for West Coast Agency, 1881." In *Annual Report for the Dept. of Indian Affairs, 1881*, edited by Department of Indian Affairs. Ottawa: Canada, 1881.
Guillod, H. "Report: Guillod, West Coast Agency to Indian Superintendent, 22 September 1881." In *Annual Report of the Department of Indian Affairs for the Year Ended 31st December, 1881*, 161-65. Ottawa: Queen's Printer, 1881.
Harris, Cole. "Voices of Smallpox around the Strait of Georgia." In *The Resettlement of British Columbia· Essays on Colonialism and Geographical Change* edited by Cole Harris, 18. Vancouver, BC: UBC Press, 1997.
Harris, Cole. *Making Native Space - Colonialism, Resistance and Reserves in British Columbia*. Vancouver: UBC Press, 2002.
Harris, Douglas. "Fish, Law and Colonialism: The Legal Capture of Salmon in British Columbia." Toronto: University of Toronto Press, 2001.
History Book Committee. "The Sooke Story: The History and the Heartbeat." Sooke, BC: Sooke Region Museum, 1999.
Howay, F.W. *Voyages of the "Columbia" to the Northwest Coast, 1787-1790 and 1790-1793*. reprinted : 1969, Da Capo Press, New York ed. Vol. 79, Boston: Massechusetts Historical Society Collections, 1941.

Indian Residential School Resources. "Alberni Residential School - Port Alberni." Indian Residential School Resources, http://irsr.ca/alberni-residential-school/.

Inglis, George. "The Pacheenahts of Port Renfrew." *The Daily Colonist*, August 1, 1971 1971, 12.

Inglis, Richard, and James C. Haggarty. "Pacific Rim National Park Ethnographic History." In *Parks Canada Report Series No. 257*. Calgary: Manuscript on file with Parks Canada, Western Region, 1986.

Jones, Charles, and Stephen Bosustow. *Queesto, Pacheenaht Chief by Birthright.* Nanaimo, B.C.: Theytus Books, 1981.

Jones, Charles Sr., and Eugene Arima. "Annotated Map of Juan De Fuca Strait with Pacheedaht Place Names." In *Unpublished manuscript. Pacheedaht First Nation*. Port Renfrew, BC, 1973-1974.

Kirchner, F. Matthew. "The Aboriginal Right to Sell Fish, Ahousaht Nation Et Al. V. Canada." (2010). http://www.ratcliff.com/publications/aboriginal-right-sell-fish-ahousaht-nation-et-al-v-canada.

Kool, Rick. "Northwest Coast Indian Whaling: New Considerations." *Canadian Journal of Anthropology* 3, no. 1 (1982).

Laird, D. "Memorandum of Instructions: Laird, Minister of Interior to Dominion Indian Reserve Commissioner Anderson, 25 August 1876 " In *Library and Archives Canada. RG 10, Vol 3633, File 6425-1, Microfilm reel C-10111. Correspondence, Reports, Surveys and Accounts of the Indian Reserve Commission in British Columbia, 1876-1878*. Ottawa, 1876.

Library and Archives Canada. "Indian Affairs Annual Reports, 1864-1990." www.collectionscanada.gc.ca, http://www.collectionscanada.gc.ca/databases/indianaffairs/index-e.html.

Macdonald, John A. "Correspondence: Macdonald, Superintendent General of Indian Affairs to McLelan, Acting Minister of Marine and Fisheries, 25 October 1882 " In *Library and Archives Canada. RG 10, Volume 3766, File 32876, Microfilm reel C-10135. Fisheries of Upper Nass Villages, British Columbia,1881-1883*. Ottawa, 1882.

Mackie, Richard. "Trading Beyond the Mountains, the British Fur Trade on the Pacific 1793-1843." Vancouver, BC: UBC Press, 1997.

Madrone Environmental Services Ltd. "Archaeological Impact Assessment for Proposed Repairs to Park Trails and Facilities at Sombrio Beach, Juan De Fuca Provincial Park. Heritage Inspection Permit #2013-0263." Duncan, BC: Madrone Environmental Services Ltd, 2014.

Martinez, Esteven Jose. "Diary of 1789 Voyage to Nootka. Translated from Spanish Copy in Bancroft Library by William L. Schurz." Victoria, B.C.: B.C. Archives, Add.Ms. 291, 1789.

Meares, John. *Voyages Made in the Years 1788 and 1789 from China to the North West Coast of America*. Amsterdam/New York: N. Israel/Da Capo Press, 1790. 1967.

Murray, Peter. *The Vagabond Fleet: A Chronicle of the North Pacific Sealing Schooner Trade*. Victoria, B.C.: Sono Nis Press, 1988.

National Data Buoy Center. "Station 46087 (LLNR 756) - Neah Bay." National Oceanic and Atmospheric Administration http://www.ndbc.noaa.gov/station_history.php?station=46087.

National Data Buoy Center. "Station 46087 (Llnr 756) - Neah Bay Historic Data." National Oceanic and Atmospheric Administration http://www.ndbc.noaa.gov/view_text_file.php?filename=46087a2013.txt.gz&dir=data/historical/adcp/

O'Reilly, Peter. "Minutes of Decision: Pacheena Indians, 18 October 1882." In *A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 10: File 29858-3, Volume No. 10. Minutes of Decision, Correspondence & Sketches - P. O'Reilly, June 1882 to February 1885*, 319-25. Ottawa, 1882.

O'Reilly, Peter. "Correspondence: O'Reilly, Indian Reserve Commissioner to Superintendent General of Indian Affairs, 3 March 1890." In *A. Seymour (compiler), 1997. Department of Indian Affairs, Federal Collection of Minutes of Decision, Correspondences and Sketches, Volume 12: File 29858-5, Minutes of Decision, Correspondence & Sketches - P. O'Reilly, April 1889 to January 1892*, 298-302. Ottawa, 1890.

O'Reilly, Peter. "Minute of Decision of IR #4, October 30,1894." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1894.

Pamphlet, Thomas. "A West Coast Reminiscence." Victoria BC: The Colonist, Jan. 1, 1892 p. 5, 1892-01-01.

Pearson, Gary. "Notes and Video Recording from Interview of Gary Pearson by Kevin Neary, Kristine Pearson and Madelen Jones, February 26th, 2014." Port Renfrew, BC: Pacheedaht First Nation, 2014.

Powell, I.W. "Correspondence: Powell, Commissioner of Indian Affairs, 31 October 1874." In *Library and Archives Canada. RG 10, Volume 3614, File 4105, Microfilm reel C-10107. Reports on the West Coast of Vancouver Island and of Barclay Sound (Map, Census, Report)*. Ottawa, 1874.

Powell, I.W."Report on Indian Affairs in the Province of British Columbia for the Year Ended 30th June, 1875. Reports No 28 (a) and 28 (B)." In *Annual Report of the Department of the Interior for the Year Ended 30th June, 1875*. Ottawa: Queen's Printer, 1876.

Powell, I.W. "Report of the Deputy Superintendent of Indian Affairs, 1879." In *Annual Report of the Department of Indian Affairs*. Ottawa: Canada, 1879.

Quimper, Manuel. "Descrision General Del Estrcho De Juan De Fuca." Mexico City: Archivo General de la Nacion, Historia, Tom. 68. Typescript at BC Archives AA10M57, v.6, 1790.

Rounsefell, George A., and George B. Kelez. "The Salmon and Salmon Fisheries of Swiftsure Bank, Puget Sound and the Fraser River." *Bulletin of the Bureau of Fisheries* XLIX, no. 27 (1938).

Royal Commissiion on Indian Affairs for the Province of B.C. "Meeting with the Pacheedaht on Their IR # 1 Reserve on May 6, 1914." Victoria, BC: BC Archives, Indian Affairs, (RG 10, Volume 3911, file 111, 246), 1914.

Royal Commission on Indian Affairs for the Province of British Columbia. "Meeting with the Pachena Tribe or Band of Indians on Their No. 1 Reserve, Held on the 6th. Day of May, 1914. Transcript obtained from http://www.ubcic.bc.ca/Resources/ourhomesare/testimonies/" Victoria, BC: Province of British Columbia/Canada, 1914.

Royal Commission on Indian Affairs for the Province of British Columbia. *Report of the Royal Commission on Indian Affairs for the Province of British Columbia*. 4 vols Victoria, BC: Acme Press, 1916.

Sapir, Eward. *The Whaling Indians: West Coast Legends and Stories: Tales of Extraordinary Experience Told by Tom Sa:Ya:Ch'apis, William, Frank Williams, Big Fred, Captain Bill and Qwishanishim*. Canadian Ethnology Service, Mercury Series Paper 139. edited by Eugene Arima, Terry Klokeid and Katherine Robinson Hull, Quebec: Canadian Museum of Civilization, 2004.

Sapir, Edward, and Morris Swadesh. *Native Accounts of Nootka Ethnography*. Indiana University Research Centre in Anthropology, Folklore, and Linguistics 1. Vol. 21 (4), pt. 2, Bloomington: Indiana University, 1955.

Skowaisa, Curtis. "Transcript, Video and Maps from Interview of Curtis Skowaisa at Pacheedaht Administration Building on February 27, 2014 by Kevin Neary, Kristine Pearson and Madelen Jones." Port Renfrew, BC: Pacheedaht First Nation, 2014.

Sub Committee on Safety of Navigation. "Routeing of Ships, Ship Reporting and Related Matters Amendments to the Traffic Separation Schemes “in the Strait of Juan De Fuca and Its Approaches, Nav 51/3/5." London: International Maritime Organization, 2005.

Sutherland, Andrew Joseph. "Sunro Copper Mine." https://www.facebook.com/media/set/?set=a.304998676270168.49590.129079040528800&type=3.

Suttles, Wayne. "Central Coast Salish." In *Handbook of North American Indians, Volume 7, Northwest Coast.*, edited by Wayne Suttles, 453 - 75. Washington, D.C.: Smithsonian Institution, 1990.

Swadesh, Morris, and Mary Haas. "Nitinat Field Notebooks " In *American Philosophical Society Library, Franz Boas Collection of American Linguistica, Edward Sapir Nootka Materials, W2b.2, 372.1, Microfilm reels 51 and 52*. Philadelphia, 1931.

Thomas, John, and Thom Hess. "An Introduction to Nitinaht Language and Culture." Victoria, BC: Unpublished Manuscript. Dept. of Linguistics, University of Victoria, 1981.

Trans Mountain Expansion Project. "An Application Pursuant to Section 52 of the National Energy Board Act, Volume 8b, Marine Environmental & Socio-Economic Technical Reports." Calgary AB: Kinder Morgan Canada, 2013.

Vankoughnet, L. "Correspondence: Vankoughnet, Deputy Superintendent General of Indian Affairs to Whitcher, Commissioner of Fisheries, 17 October 1881." In *Library and Archives Canada. RG 10, Volume 3766, File 32876, Microfilm reel C-10135. Fisheries of Upper Nass Villages, British Columbia,1881-1883*. Ottawa, 1881.

Vaughan, Thomas. "Introduction." In *Soft Gold: The Fur Trade and Cultural Exchange on the Northwest Coast of America*, edited by Thomas Vaughan, 1-30. Portland: Oregon Historical Society, 1982.

Wagner, Henry R. "Quimper's Journal." In *Spanish Explorations in the Strait of Juan De Fuca*, 82 - 132. Santa Ana, California: Fine Arts Press, 1933. Reprint, Reprint A.M.S. Press, 1971.

Webb, Robert Lloyd. *On the Northwest, Commercial Whaling in the Pacific Northwest*

1790-1967. Vancouver BC: University of British Columbia, 1988.
Wright, M.C., and Esther Guimond. "Jordan River Pink Salmon Incubation Study." Nanaimo, B.C.: M.C. Wright and Associates/Fisheries and Oceans Canada, 2003.