

Bear Cove Recreation Site Project

Final Report



February 28, 2014



Prepared By:
District of Port Hardy



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About Port Hardy



Port Hardy has many strengths on which to base strong economic growth, including access to natural resources, proximity to a variety of outdoor recreation and tourism opportunities, pristine natural environment, available physical space for new activities, entrepreneurs and accommodation types, a strong arts and culture emphasis, and a high quality of life –

“Growing Towards Economic Sustainability: Sector Profiles of the District, August 2011”

The District of Port Hardy is the largest of six communities in the Regional District of Mt. Waddington with a current population of approximately 4,008 (2011 census) and a land base of 4,081 hectares. The District provides services to an additional 1,050 area residents, including three First Nations bands: the Kwakiutl, Quatsino, and Gwa’sala-’Nakwaxda’xw.

The District is connected by land to the Vancouver Island communities to the south via highway 19 and to the rest of the Province by a regional/local airport, offering daily flights to Vancouver and key Central Coast locations, as well as seaplane facilities. Water transportation includes a large harbour system with several government wharves and marinas, as well as BC Ferries and barge terminals which provide access to the growing mid- and Central Coast (Figure 1).

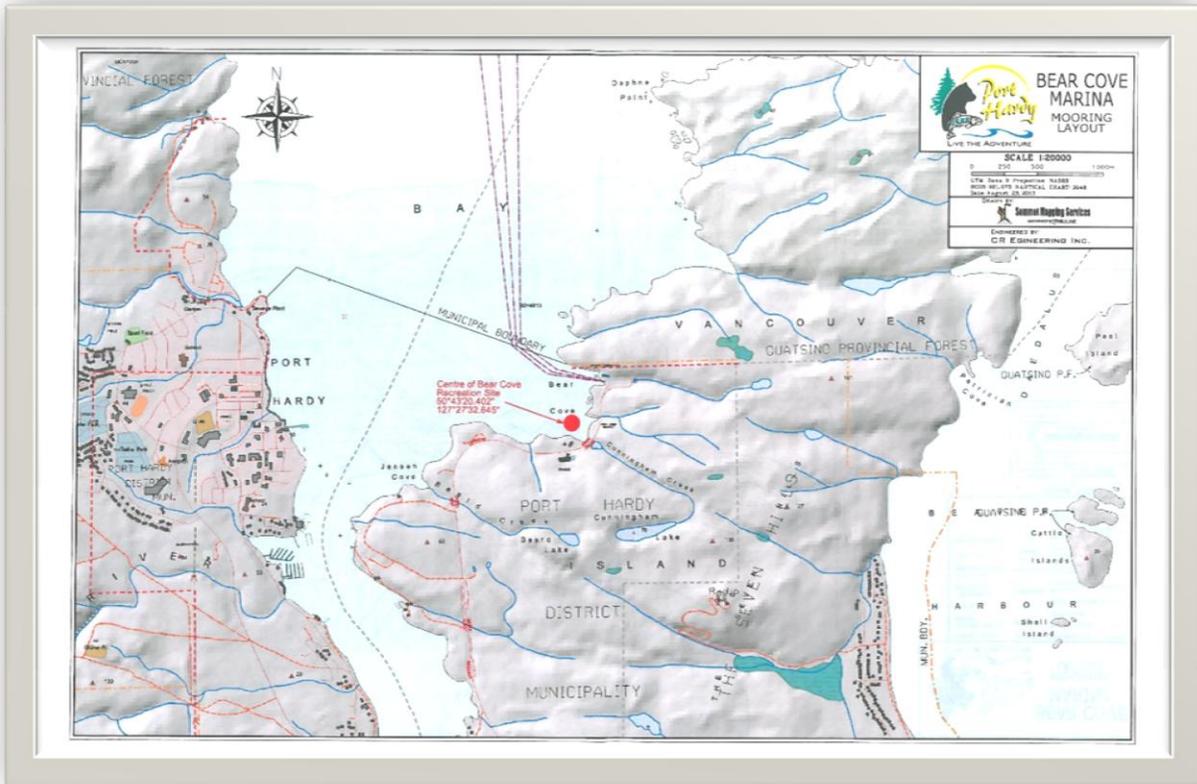


Figure 1. General Location Map for Bear Cove

Project Background



The District of Port Hardy has demonstrated significant ability to reinvent itself following the close of the BHP mine in 1996. Once identified as one of the “hardest hit” communities in British Columbia with regards to unemployment related to the mine closure and further fluctuations in fishing and logging, Over the last decade, the District has taken a proactive approach to sustain and diversify its local economy.

Early on, Mayor and Council realized the strength of the community’s position as the crossroads for air, ferry and marine transportation networks, its continued access to a wide range of traditional and green energy resources, as an emerging destination for tourists seeking wilderness adventures, and as the primary service provider to the fast-growing Central Coast communities.

To maximize these opportunities, the District supported the construction of the North Coast Trail, the establishment of a Regional Tourism Committee, the development of tourism amenities on the East Side of the Bay, launched a Downtown Revitalization strategy and, most importantly, obtained funding supports to complete the \$6.7 million in harbor and uplands upgrades to its seine float infrastructure and municipal wharf system. This investment has resulted in Port Hardy being recognized as the busiest port for ground fish and aquaculture landings in BC, with Prince Rupert second and Vancouver seeing the third highest landings.

In 2010, Port Hardy's Harbour Manager identified that these successes had resulted in Port Hardy's primary boat launch site, located at the Municipal Wharf, being over-proscribed, with some commercial fishing charters waiting over an hour to launch their boats, and creating safety concerns as both locals and tourists parked along the narrow two-lane road bordering the harbour. It was also providing challenges for marine "commuters" traveling to and from the busy Central Coast as this site only allowed boaters to launch and load boats one at a time.

With no room for expansion at Fisherman's Wharf, it was determined that upgrading the Bear Cove Recreation Site would build capacity by creating an attractive alternative on the east side of Hardy Bay.

Bear Cove required significant upgrades if it was to help alleviate the challenges at the Municipal Wharf. It lacked directional signage and basic amenities that would make it an attractive alternative. The upper Bear Cove boat ramp required an extension and re-surfacing to increase safety and usability; the lower (shallow launch) ramp was in total disrepair. There was no float system to tie up boats or attract day trippers and pocket cruisers. With the exception of outhouses and a few picnic tables, the site offered no tourist facilities – even though it is adjacent to the BC Ferries terminal, several eco-cabins, a high-end housing development, an RV campground, and the new Fort Rupert [Taxis] Trail. And the facility lacked accessibility features that are key to its primary tourist demographic (Europeans over the age of 55).

Obtaining funding became key to addressing these issues. It would take a year-and-a half for the District to secure all the funding required to start this ambitious project and to strategize the most efficient approach to bringing the project to fruition. This report details the steps taken that have resulted in the Bear Cove Recreation Site becoming a popular alternative to the downtown launch site for tourists, marine "commuters", commercial charter operators, kayakers and divers.

Site improvements were focused on three key areas of the existing Bear Cove Recreation Site:

1. Marine
2. Upland
3. Boat Launch

Biological, Archaeological and Engineering Works

Biological Assessment

Pacificus Biological Services Ltd of Port Hardy conducted the preliminary marine baseline and post construction assessments for Bear Cove as well as environmental monitoring during construction. The preliminary assessment delineated sensitive habitats within the construction area provided mitigation measures to avoid serious harm to the identified marine organisms and habitat during construction. The biological assessment was also utilized in obtaining project approval from Fisheries and Oceans Canada and in obtaining a water lot extension from the Province of British Columbia. The mitigation measures outlined were followed and results from the post construction assessment indicate that no harmful alterations to fish or fish habitat occurred.

Archaeological Assessment

Baseline Archaeological Services Ltd of Courtenay was contracted to conduct an archaeological overview assessment (AOA) and a preliminary filed reconnaissance (PFR) of the of the proposed development site to determine if there were conflicts with the known archaeological site EeSu-7 which is located adjacent to the Bear Cove Recreation Site. Bear Cove has been identified as one of the oldest sites of human habitation on the British Columbia Coast. The site assessments were conducted by Chris Engisch, RPCA and Karen Hunt of the Kwakiutl First Nation. No conflicts with the known archaeological sites were identified and the development was allowed to proceed without further archaeological work. The District of Port Hardy enjoyed a supportive working relationship with the Kwakiutl First Nation who endorsed the project.

Engineering

Preliminary engineering for the project was conducted by StoneCroft Engineering and completed by Jeff King of CR Engineering of Campbell River BC. Northwest Hydraulics conducted the wind / wave analysis and wave modelling and provide attenuator recommendations based on the analysis and wave climate modelling completed for Bear Cove. Navigable Waters approvals were obtained by Pacificus Biological Services in concert with StoneCroft Engineering Ltd.

1. Marine Improvements

To make the Bear Cove Recreation Site Project a reality, the District of Port Hardy had to think outside the box. Through the initial assessments and natural course of the project, it became obvious that creative ideas were going to be needed to keep the project afloat and on budget.

User groups came forward and identified areas where additional services and project components would provide a more user friendly site. Where possible, used components were sourced and recycled for use in the project. Reducing costs for some of the major project components allowed the District to add and expand on planned amenities. Several such additions included expanding lighting to the floats and to a much larger pavilion. A dive step was added to the float system allowing divers to enter and exit the water safely from the floats. Both the boat launch floats and the main float system were expanded and made wheelchair accessible.

Floating Wave Attenuators

Bear Cove is exposed to the prevailing summer northwest winds which prior to the site improvements made trailering boats difficult on the steep boat ramp difficult. The addition of 3 55m long floating wave attenuators has significantly improved the wave climate at Bear Cove, making both moorage at the newly installed floats and trailering boats easier for recreation boater of all skill levels.

The floating wave attenuators utilized at Bear Cove were chosen for their slim profile and for the fact that they were a cost effective and locally available product. Their location in deep water and slim profile mitigates against shading effects on native flora and fauna. Utilizing floating breakwaters also mitigates against negative impacts to existing fish habitat which can be associated with traditional rubble mound breakwaters.

Attenuator Profile	Example Marine Growth	Attenuators at Bear Cove
		

Pier Construction

One of the initial construction issues with the project was how to construct the pier footings and launch the pier. The locations of the footings can only be accessed during very low tides that did not necessarily align with the work schedule. Creativity shown by the District and Mike Buttle of Mike Buttle Services Ltd. solved the problem.

The unique “Buttle Shuttle” which is part ferry and part landing craft made the site preparation and construction of the pier feasible. The Buttle Shuttle is an ideal work platform with enough room to transport people and equipment to remote and hard to access work sites. The Buttle Shuttle was indispensable in every aspect of the pier construction and the majority of float work undertaken onsite.

The main Pier walkway is constructed of two gangways bolted together. In a previous life these pieces used to be gangways that provided access to Harbour Air’s Vancouver Terminal. The individual gangways were transported on the float system which was constructed at Fisherman’s Wharf to Bear Cove. They were then lifted aboard the Buttle Shuttle and bolted together on deck before being lifted into place with the Buttle Shuttle’s hiab crane.

<p>Constructing Forms for Pier Footings</p>	<p>Poured Seaward Footing</p>
	
<p>Shoreward Footing</p>	<p>Pouring Shoreward Footing</p>
	

Welding on Cross Braces



Close up of Welding



Preparing to Install Walkway



Installing Walkway



Pulling Walkway Shoreward with Excavator



Finished Walkway with Gangway in Place



Main Float Construction and Installation

The main floats for Bear Cove were constructed at The District of Port Hardy operated Fisherman’s Wharf by employees of the Community Fisheries Development Centre (CFDC). These workers were funded through the Ministry of Housing and Social Development Employment and Labour Market Services and worked directly under Bob Grant of the CFDC.

Small Craft Harbour standard 9’ wide float kits were assembled on the upland property before being lowered into the water with Hardy Building Supplies’ hiab crane truck. The floats were then assembled in the final configuration before being towed to Bear Cove by Cape Scott Water Taxi of Port Hardy. The finger floats were added to the main floats at Bear Cove by Mike Buttle and anchoring was completed by Searoamer Marine Services Ltd.

<p>Floats Under Construction</p>	<p>Floats under construction</p>
	
<p>Towing Floats and Pier to Bear Cove</p>	<p>Towing Floats and Pier to Bear Cove</p>
	

Installation of Fingers



Anchoring of Floats



Finished Product



Finished Product



Finger Floats

Twelve 28 foot long by 3 foot wide finger floats were constructed and installed at Bear Cove by Mike Buttle. The finger floats area recycled fish farm walkways. They are constructed of expanded galvanized steel grating which allows for good light penetration which helps to mitigate against shading effects.

Fingers Awaiting to be Installed	Installed Fingers
	

Potable Water

Potable water was extended from the roadside on the upland property to the floats. The potable water services the two fish cleaning tables added to the end of each main finger. A total of eleven faucets were added to the main float system to service recreation boaters

Compression Fittings	Aluminum Protective Cover
	

Lighting and Expandable Electrical Service

Electrical service was extended from the upland property line to the pier and subsequently the float system. The electrical service provides lighting to the pier and floats. All lighting is controlled by photo cells which automatically turn on the lights when light levels drop below a certain level.

The District opted to install a larger electrical service and expandable distribution center at Bear Cove. This was done to facilitate future expansion of the site so that in the future, additional lighting and electrical services can be extended if the float system is expanded to accommodate more vessels.

Expandable Distribution Center	50amp Plug-in for Floathouse	Dock Light
		

Safety Equipment

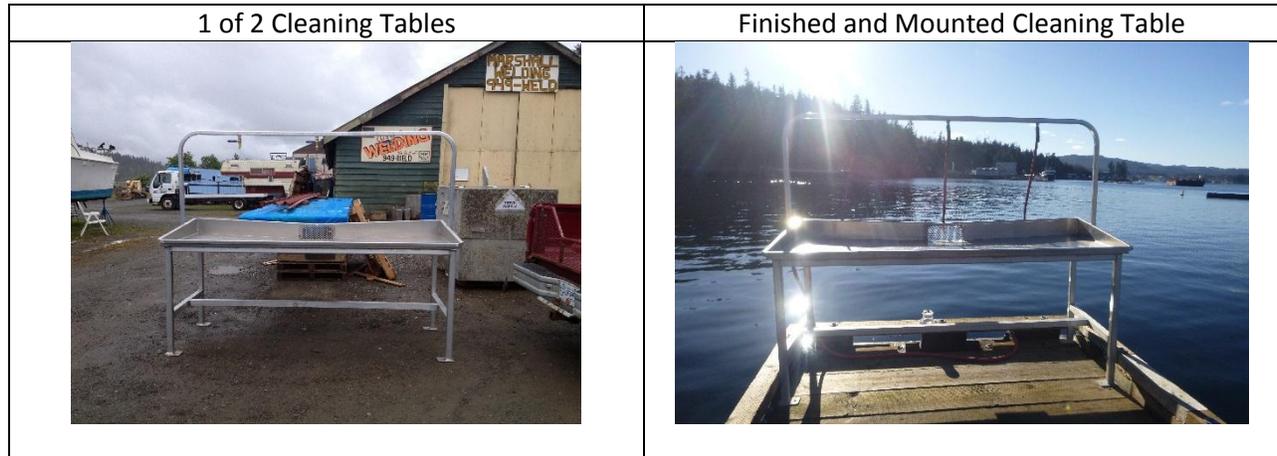
Safety is a priority and as such the District installed 6 portable 10lbs Class A, B & C fire extinguishers on each light pedestal on the Bear Cove Floats. Ten drop down egress ladders and several 24” life rings have also been strategically placed throughout the float system.

Dive Step

As the project developed, different community groups came forward with questions and concerns about access to the Bear Cove Rec Site. Several recreational dive groups on the North Island came forward and requested that a dive step be installed on the Bear Cove floats. As a result, an aluminum dive step was fabricated and installed at the base of the gangway by Blair Marshall Welding.

Two Fish Cleaning Stations

The fish cleaning stations at Bear Cove were directly funded by the Rotary Club of Port Hardy and fabricated by Blair Marshall Welding Ltd. Each table is positioned at the end of the main fingers over deep water. Here, the carcasses drop into deep water where they provide nutrients to the marine ecosystem and are devoured by ocean predators.



2. Upland Improvements

Pavilion

Initially, the District intended to install a small gazebo on a small point of land adjacent the boat ramp. As community support for the project developed and various groups had their input, it was determined that a larger post and beam structure would be more suited to Bear Cove. As a result the District developed plans and constructed a 400 square foot post and beam pavilion at Bear Cove.

The structure was built using locally harvested Douglas fir. Several local contractors were engaged during its construction.

- Dave Janke Mini Excavating of Port Hardy excavated the site and assisted with the concrete forming.
- Justin Fylling Contracting of Nanaimo constructed the post and beam structure.
- Quatse Northwest Pacific Contracting of Port Hardy poured the concrete slab and conducted the trenching for electrical lines.
- K&K Electric of Port Hardy installed the electrical service and lighting for the Pavilion.

<p style="text-align: center;">Excavating Footings</p> 	<p style="text-align: center;">Forming Footings</p> 	<p style="text-align: center;">Installing Beams</p> 
<p style="text-align: center;">Concrete Slab</p> 	<p style="text-align: center;">Installed Lighting</p> 	<p style="text-align: center;">Completed Structure</p> 

Lighting and Electrical Service

The electrical service to the entire recreation site was installed by K&K Electric of Port Hardy. In addition to installing the float lighting, K&K installed lights on the pavilion. Both the upland electrical service and the electrical service on the float system have been designed to facilitate future expansion at both sites.

<p style="text-align: center;">Main Hydro Connection</p> 	<p style="text-align: center;">Expandable Distribution Panel</p> 
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Bear Proof Garbage Bins

Bear proof garbage bins were purchased as part of the project and installed throughout the recreation site by the District Public Works Department.

Three Bear Proof Garbage Bins Were Installed Throughout the Site



Way finding and Interpretive Signage

Both directional and interpretive signage was installed throughout the Bear Cove Rec Site. Directional signage included information on site hours of operation, special access during the off season and warnings associated with boat ramp usage.

Interpretive signage was also installed for the designated kayak ramp. Local dive enthusiasts created the signage highlighting the marine biodiversity contained within the Bear Cove Rec Site.

Way finding Signage	Directional Signage	DFO Notification Board
		

Boat Wash Stations and Oil Water Separator

A boat wash station was constructed adjacent to the upland parking area where recreation boaters can wash down their vehicles and boats. Creating an environmentally sustainable site was always key and an oil water separator was designed by Pacificus Biological Services, fabricated by Marshall Welding and installed by Quatse Northwest Pacific Construction Ltd (Q.N.P.C.).

Concrete Pad	Concrete Pad and Separator
	
Oil Water Separator	Final Product with Water Connection
	

Additional Parking

Additional parking for vehicles and vehicles with trailers was created adjacent the boat wash station to meet increased demands for vehicle and trailer parking at the Bear Cove Recreation Site.

Work in Progress	Additional Parking Adjacent Boat Wash-down
	

Landscaping

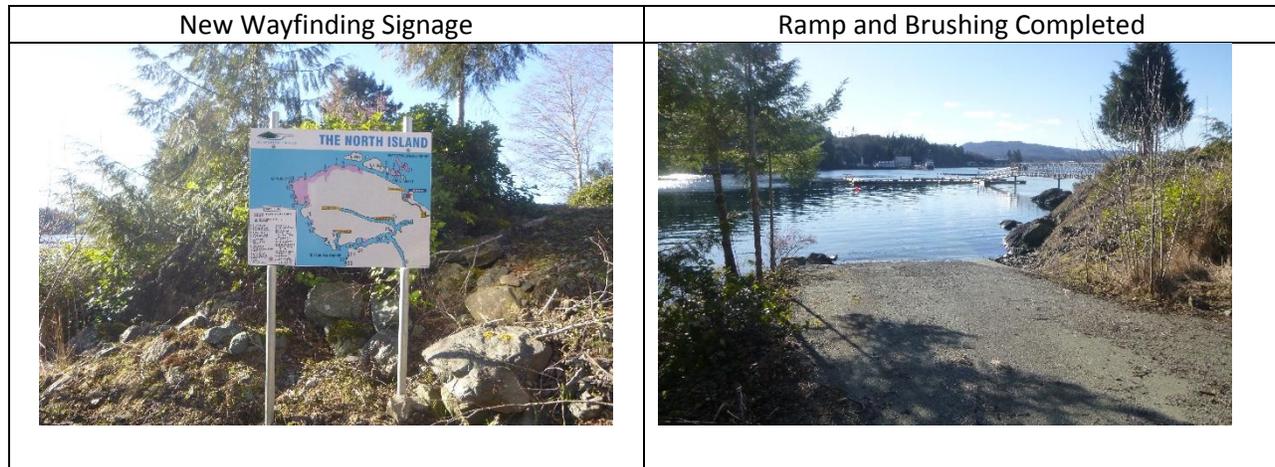
Landscaping of the upland site was conducted by the District of Port Hardy. This included pruning and the removal of several danger trees as well as the installation of several rock gardens which were vegetated with native flora. Landscaping activities also focused on making the upland property more serviceable by levelling grassed areas so that they could be accessed by mechanical mowers etc., keeping future maintenance costs to a minimum. The upland landscaping has given the Bear Cove Rec Site a unique west coast feel and made future maintenance activities more cost effective.

Rock Gardens	Site was Levelled
	

Designated Kayak Launch

In response to the BC Marine Trails Network Association requests, the District of Port Hardy re-furnished the lower boat launch site. Now there is a designated launch for kayakers at Bear Cove. Way-finding signage has also been added marking this site as the start of the northern leg of the BC Marine Trails Network.

Kayak Ramp Prior to Repair	Undermining of Ramp
	
Ramp Surface Repair	Re-enforced Edge
	



3. Boat Launch Improvements

One of the most significant project components was the Bear Cove Recreation Site Project was the improvements to the upper boat launch. Improvements included the following:

- Reduction in ramp gradient from 9⁰-7⁰
- Boat launch extension of 6.5m
- Addition of curbs along the launch
- Cast in place steel pilings for boat launch floats
- Transition plates for floats
- Addition of sidewalks

Prior to the project improvements, the Bear Cove boat launch was challenging to use. The ramp was a steep (9⁰) which is considered to be the upper limit of what is acceptable for boat launches. The entire length of the boat launch was re-surfaced by Q.N.P.C., reducing the overall gradient to 7⁰. To avoid a significant drop off at the end of the ramp, the ramp needed to be extended seaward. As a result, the ramp was extended an additional 6.5m. A curb was installed along the south side of the boat launch to keep users on the ramp. Creosoted pilings used to hold the boat launch floats in place, were removed and new heavy wall steel pilings were cast in place. Transition plates were added to the boat launch floats making them wheelchair accessible. Sidewalks were also added to both sides of the boat launch. These improvements to the functionality of the boat ramp have made it user friendly for even novice boaters.

Boat Launch Pre-Project



Boat Launch Pre-Project



Pouring Piling Footings



Pouring Piling Footings



Work Started at the Base of the Ramp



Working up the Ramp



Pouring the Second to Last Pad



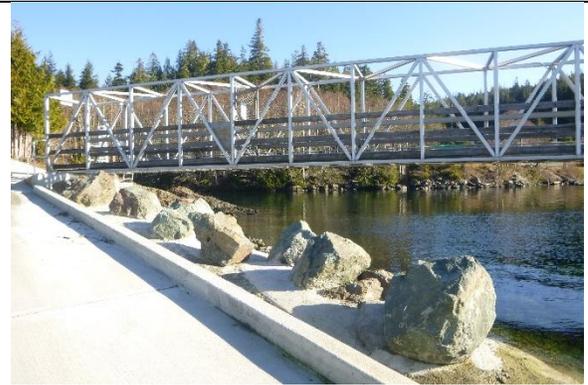
Levelling of the Second to Last Pad



Forming for Curb



Completed Curb



Sidewalks on Both Sides of the Launch



Completed Launch and new Pilings



Project Partners

Preliminary assessments for the Bear Cove Recreation Site Project began in 2010 when Mayor Parnham, council members and municipal staff decided to pursue funding from Island Coastal Economic Trust, Coast Sustainability Trust, and WestCCAP for the creation of a Tourist Friendly Recreation Site.

Initial efforts to secure funding and planning stages were guided by the municipal staff, councilors and project managers listed below:

Mayor and Council			
Project Inception		Current	
Name	Title	Name	Title
Bev Parnham	Mayor	Bev Parnham	Mayor
Al Huddleston	Councilor	Debbie Huddleston	Councilor
Eric Ralph	Councilor	Nikki Shaw	Councilor
Nikki Shaw	Councilor	Janet Dorward	Councilor
Scott White	Councilor	Rick Marcotte	Councilor
Larry Woodall	Councilor	John Tidbury	Councilor
		Jessie Hemphill	Councilor

Municipal Staff	
Name	Title
Rick Davidge	Chief Administrative Officer
Allison McCarrick	Director Financial Services
Patti Smedley	Community & Economic Development Coordinator
Trevor Kushner	Director of Operational Services
Jack Griffiths	Operational Services Manager
Rui Veloso	District Horticulturist
Project Managers	
Pacificus Biological Services Ltd	
Community Oversight	
The Parks and Recreation Commission	
Tourism Port Hardy	
Joint Advisory / Planning Harbour Commission (APC)	

As with projects of this magnitude, many hurdles, delays and impasses had to be overcome. Partnerships formed between funders and the District and it was due in part to the understanding and flexibility of the funders that this project was a success. Without our funding partners, the Bear Cove Recreation Site Project would have never been possible. A detailed financial breakdown is contained within Appendix 1.

Project Partners	Financial Contribution
Ministry of Housing and Social Development Employment and Labour Market Services	118,658
Community Fisheries Development Centre	
Island Coast Sustainability Trust	400,000
Coast Sustainability Trust	150,000
WestCCAP	250,000
Port Hardy Rotary Club	2,500
District of Port Hardy	287,243
Total Funding	1,208,401

Project Summary



The socio economic impacts created as a result of the Bear Cove Recreation Site Project have exceeded all expectations. All of the deliverables set at the commencement of the project have been met and in many cases exceeded. Through creative project management and construction, the District of Port Hardy has been able to add more amenities to the project. These amenities include, but are not limited to: the lighting on the floats, an expandable electrical service, increase in the overall moorage capacity of the floats, and a beautiful 400square foot pavilion on the upland property. Many of these amenities are not only more attractive to tourists, but increase safety for those using the facility. The amenities have proven a boost for kayakers and recreational divers who also utilize the facility. The improvements have made the site accessible to users of all ages and capabilities.

The improvements have done what the District and Funders hoped they would. The 2013 summer season has seen a significant increase in the amount of recreational boaters and resident boat traffic at Bear Cove. The new, safe, and convenient boat launch, has significantly reduced congestion at the Fisherman's Wharf Boat Launch.

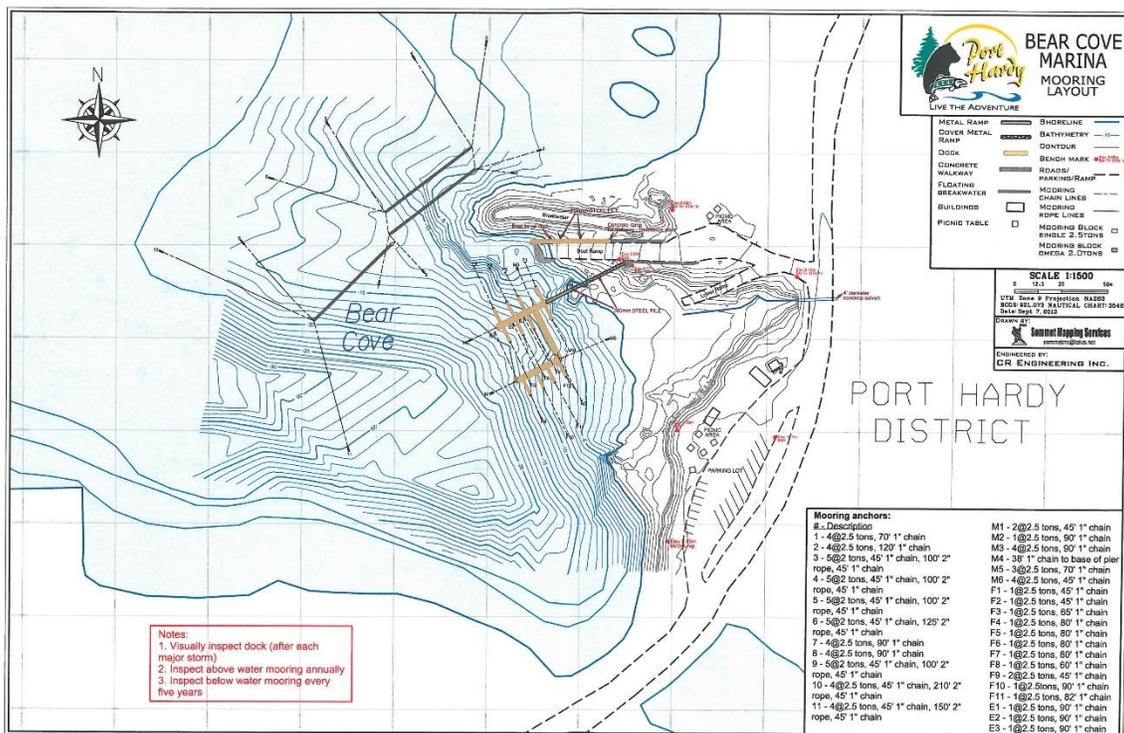
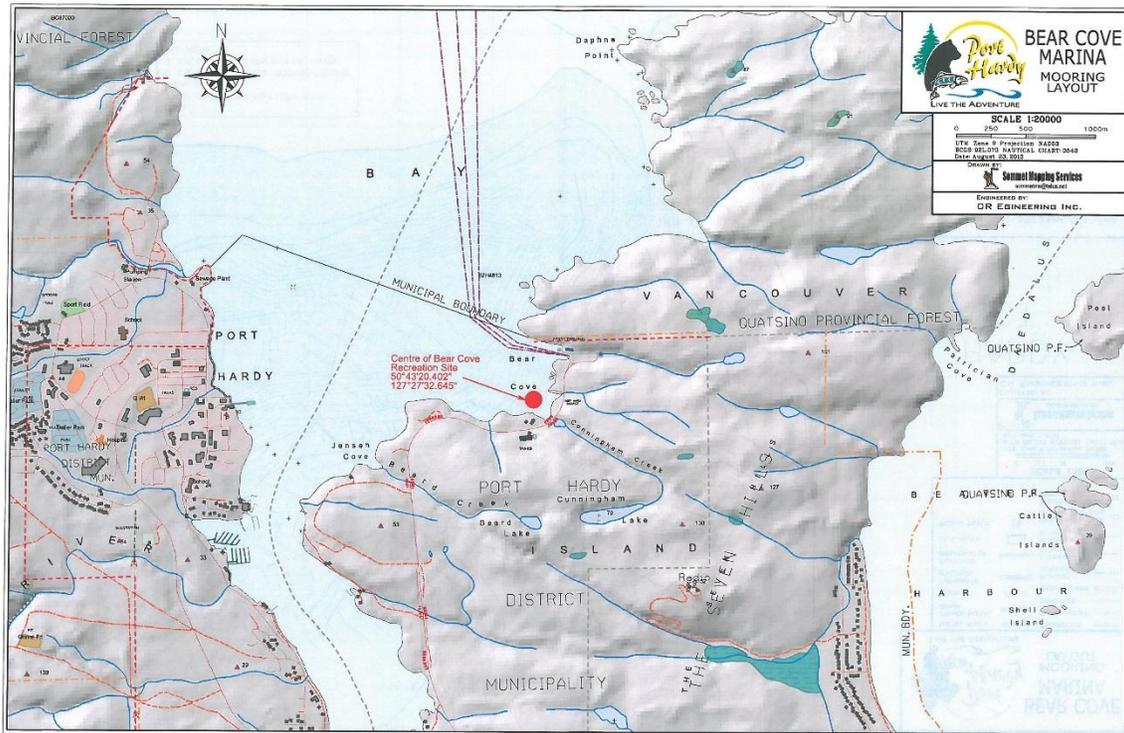
Most importantly, the project helped to create many short term and long term employment opportunities for residents. The development has also encouraged the expansion of value added local

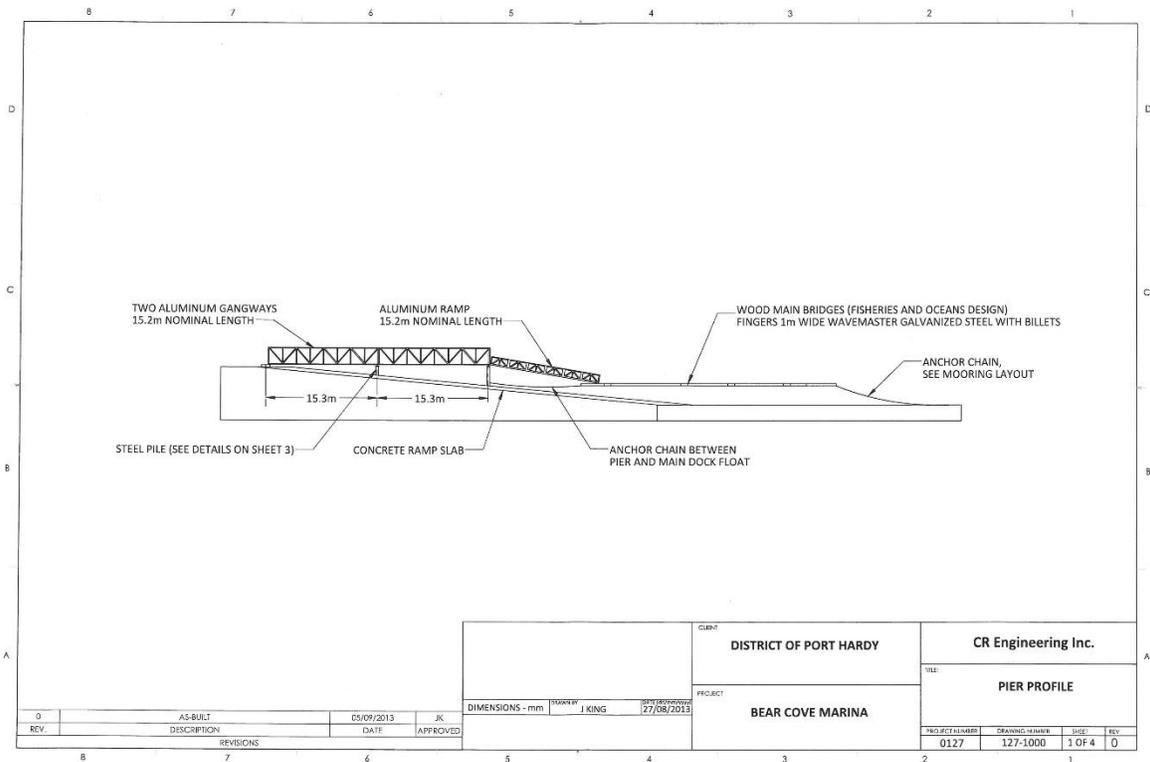
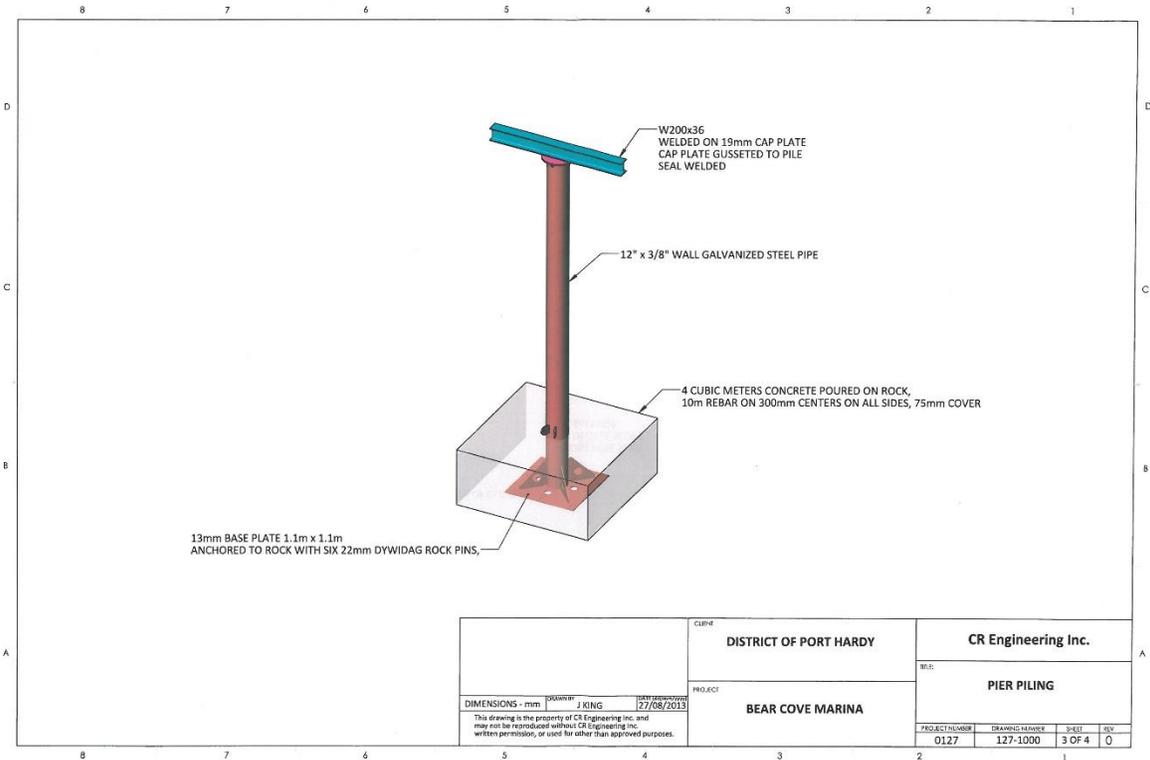
industry and encouraged the creation of additional tourism based ventures. A direct spinoff of the Bear Cove Recreation Site Improvement Project has been the creation of a floating drive through coffee and bait shop for recreational sport fishers using the facility. The floating bait shop will be up and running for the 2014 salmon fishing season and will be operated by local residents Jim and Nita Henske.

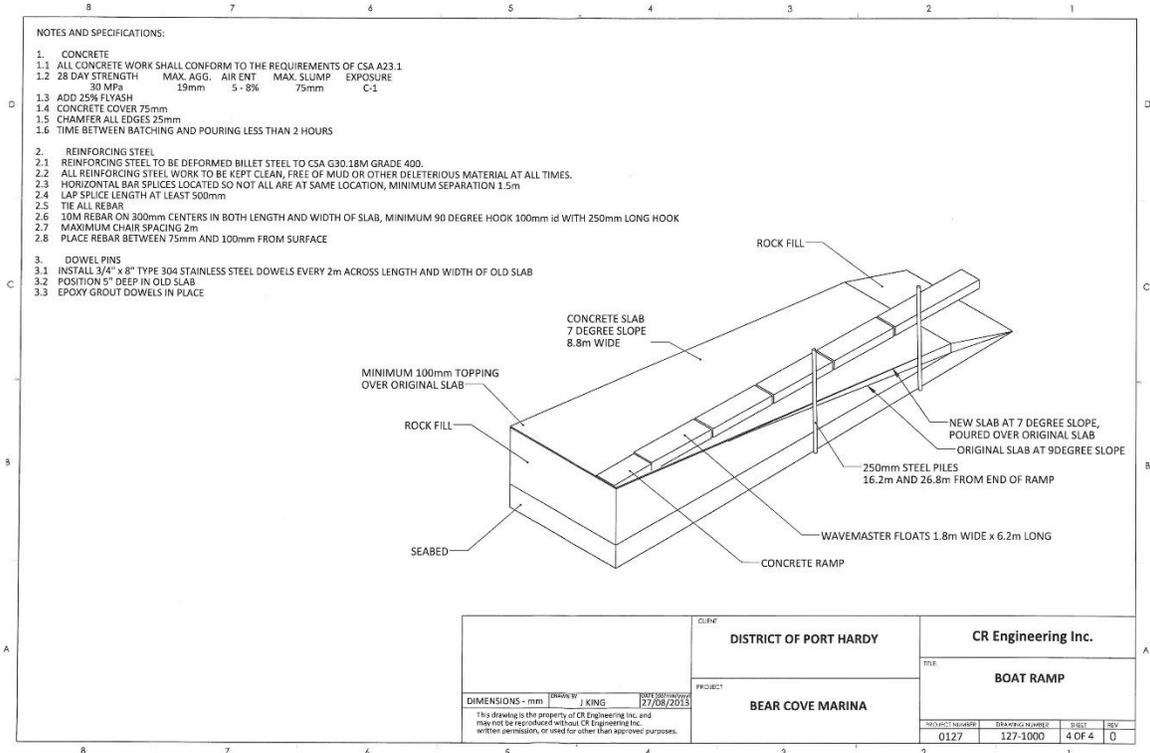
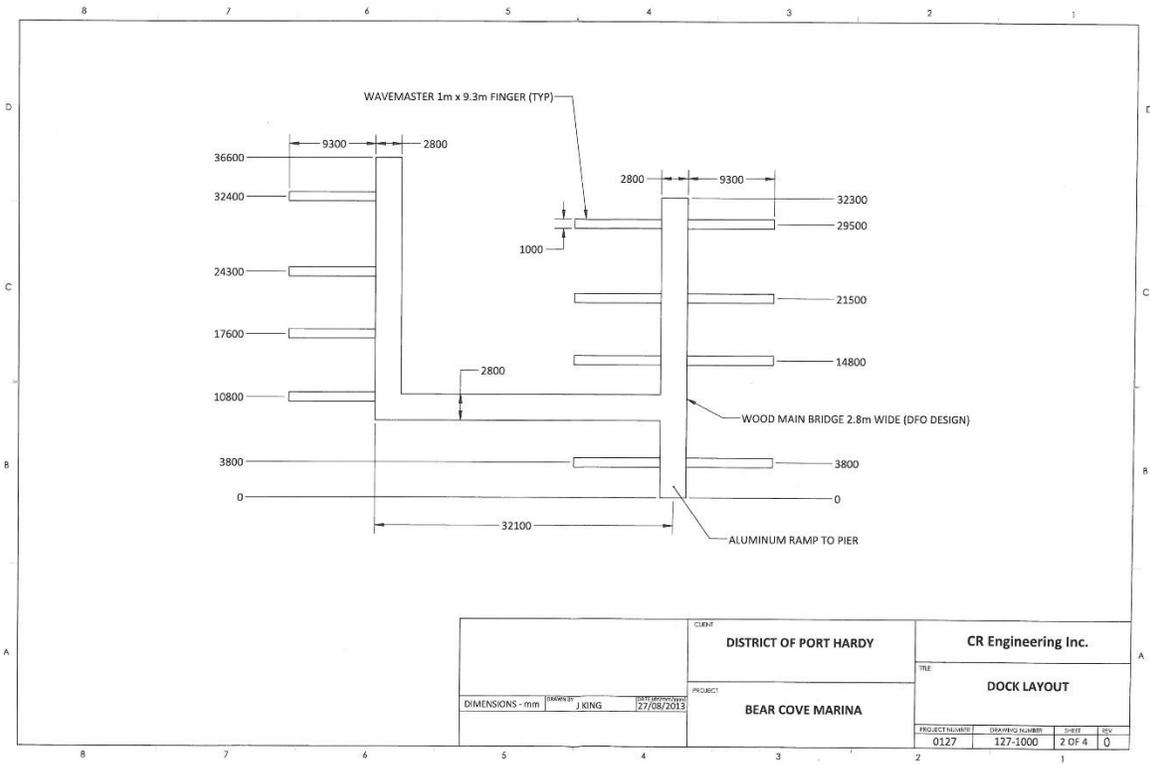
The next step for the District will be to continue to build off of its waterfront assets by acquiring key broadband infrastructure which will result in a "Wi-Fi" zone for the harbour in the near future

The improvements at Bear Cove have already made a significant impact on Port Hardy's local economy. We are confident that Port Hardy is one step closer to a healthy and sustainable economy as a direct result of the improvements to Bear Cove.

Appendix 1:







FINANCIAL STATEMENT

District of Port Hardy Bear Cove Recreation Site Upgrade Project

Period: June 26, 2011 to December 31, 2013

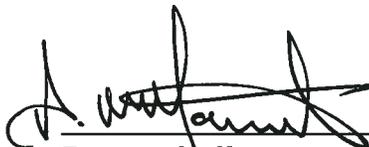
Project Expenditures

Construction, materials and equipment	\$ 1,224,194
Engineering	\$ 65,176
Project Management	\$ 65,805
Archaeology	\$ 2,370
Total Expenditures	\$1,357,545

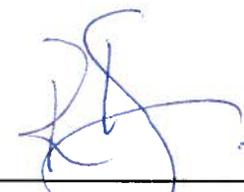
Project Income (Sources of Funding)

Island Coastal Economic Trust	\$ 400,000
The Coast Sustainability Trust II	\$ 150,000
WestCCAP	\$ 250,000
Port Hardy Rotary Club	\$ 2,500
District of Port Hardy	\$ 287,243
Community Fisheries Development Centre Program	\$ 118,658
Total Income (Sources of Funding)	\$1,208,401
Balance	\$ (149,144)

I hereby certify that this statement accurately represents all project expenditures and all sources of project funding


Financial officer

March 19, 2014
Date


Chief Administrative officer