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CONTAMINATED SITES PROGRAM: Environmental Decommissioning of Beban Camp

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The environmental clean-up project on Lyell Island in Gwaii Haanas is a prime example of the Contaminated Sites Program. The Parks Canada project demonstrates the proactive decision-making integral to tackling a significant contaminated sites problem. Coordination and mediation between various government agencies, historical data sources and private consultants is essential. Most importantly, the Environmental Decommissioning of the site (formerly the Beban Logging Camp) illustrates a government process that identifies concerns, selects different solutions, allocates funding and prioritizes actions to produce the results intended by the Contaminated Sites Program.

Beban Camp is a former logging townsite and operations yard located at Powrivco Bay on Lyell Island within Gwaii Haanas. The site was abandoned after a moratorium was placed on the island in 1987. This was a prelude to the island becoming incorporated as part of the Federal/Provincial Agreement to establish a National Park Reserve. During the closing phases of the Lyell Island Rehabilitation program (1992), the areas adjacent to the camp's former fueling and storage facilities were identified as heavily impacted with diesel, gasoline, heating oil and other petroleum hydrocarbon contaminants. Because these contaminants had pooled and penetrated deep within the soil horizon, they were not detected until the site was being actively rehabilitated. The site is adjacent to a freshwater supply and is frequented by commercial and recreational boats. It is also a base camp for research groups and will continue to be used in the future. Because the site is a popular protected cove, mooring and camping will continue as



Constructing the 40m x 80m x 3m cell to hold impacted soils from various sites

the park develops and the site fully regenerates. It is for these reasons that a five phase assessment/remediation program was initiated.

A Phase I assessment and historical review resulted in the designation of the site as a Class I Contaminated Site on the basis of the National Classification System (NCS). The NCS is designed to prioritize action levels in sites across Canada with respect to risk potentials related to contaminant type, hydrogeology, land use and exposure pathways. The Class I designation implies a high risk level and the need for further action.

Seacor, a private consultant, conducted Phase II and III environmental assessments and performed an intrusive investigation of the area with an excavator and environmental sampling equipment. Laboratory results indicated Special Waste Levels of petroleum hydrocarbons, primarily diesel at six separate locations at the site. It was projected that 10,000 cubic metres of

impacted soils exceeded the Canadian Environmental Quality Criteria for Contaminated Sites (CCME) Parkland/Residential and BC provincial level B/Class 1 soils remediation criteria. The contamination plumes had migrated to the intertidal zone particularly at the location of the former fuel dispensing island.

An application was made to Conservation and Protection, Environment Canada for Orphan Site designation under the Orphan Sites Program. This federal Green Plan Initiative provides funding for the cleanup of high risk designated sites in which no owner is held or found to be accountable. This program allows for 50% of the remediation costs to be recovered by Parks Canada.

Six remedial options were evaluated with respect to associated costs, schedule impact and relative long and short term environmental parameters.

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