

May 9, 2014

Mr Avtar Sundher
Section Head, Coast Authorizations
BC Ministry of Environment
Surrey, BC
Avtar.Sundher@gov.bc.ca

Re: Improper Contamination Assessment, Hyak Marine property, Gibsons, BC

Sir,

I am an environmental consultant with 25 years of professional experience assessing and treating pollutants. I live in Gibsons, where a developer (Klaus Fuerniss Entreprises) proposes to redevelop waterfront properties into a hotel/marina complex. This development, the George Hotel, is controversial because of its scale, land contamination, and proximity to the aquifer that supplies our drinking water.

One of the properties to be redeveloped, the Hyak Marine property, is known to have been contaminated from more than 50 years of boat repair and maintenance activity. Its close proximity to our drinking water source causes apprehension among town folks, and many people have asked me to reassure them that there is no risk to our aquifer. After reviewing the Environmental Assessment for the George Hotel, I am unable to provide them with this assurance. On the contrary, I am writing to formally complain about the inadequacies of this assessment and to request the intervention of BC MoE to ensure that a proper assessment and remediation of this property be undertaken.

BC MoE must understand that the Town of Gibsons opted out of the provincial Site Profile Administration and is responsible for appraising contamination at this site. The contamination profile at the Hyak property is complex, and includes simple hydrocarbon, PAHs, metals/metalloids (including lead and mercury) and tributyltin, in upland soils, foreshore sediments, and deep sediments slated to be dredged. I can confidently assert that town staff does not have the technical expertise required to evaluate this site assessment.

In their EA, the developer's consultant, Balanced Environmental, identified three areas of concern:

1. An upland tank farm
2. Soils around the marine shop and foreshore sediments around the boat way
3. Deeper sediments slated to be dredged in Gibsons Harbour and Crown-owned sea floor

These areas are shown in the satellite photograph in Figure 1 (below) and will be discussed separately.

Upland Area

Both underground and aboveground tanks in the upland area have for decades stored fuel that is pumped to a fueling dock. This area has been the subject of numerous investigations since the 1990's. Leaky underground fuel storage tanks and contaminated soil were removed; and in their place, two aboveground tanks were built on a concrete pad with spill containment berms. More recent investigations show that there is no significant contamination from petroleum hydrocarbons in soils that were sampled in this area and along the pipe conveying fuel to the fueling dock. Therefore, this upland area does not raise any concern with me, so long as the fuel tanks are removed competently.

Marine shop and boat way

Below the tank farm is a marine shop and remnants of boat ramps. Boat repair and maintenance activities in this area from the past 50 years have contaminated soils and foreshore sediments. Balanced Environmental (and others) sampled these soils and sediments, and reported high levels of petroleum hydrocarbon (including excessive PAH levels) and metals/metalloids (primarily arsenic, copper, chromium, lead, mercury and zinc). Some sediment samples contained copper concentrations exceeding 6,000 mg/kg (Marine PEL is 108 mg/kg), mercury exceeding 5.9 mg/kg (PEL is 0.70 mg/kg), and zinc exceeding 1,000 mg/kg (PEL is 271 mg/kg). Balanced indicated that they will develop suitable, as yet unspecified, mitigation plans to remediate these contaminated soils and sediments.

By far, the most potent toxicant at the site is tributyltin (TBT), an anti-fouling agent that was banned nearly 20 years ago. Inexplicably, Balanced omitted to analyze foreshore sediments for TBT, though they cite an earlier report indicating that TBT was detected in these sediments. I collected five sediment samples (using methods that preserve sample integrity) that are geo-referenced in Figure 1, and **found high TBT levels in two out of five samples** (reporting at 1.49 and 2.73 µg/dry g). Given the high toxicity of TBT, this omission by Balanced begs disbelief.

Balanced Environmental states that contaminated soils and sediments will be removed during construction of the hotel complex. In the EA, Balanced states that prevention of aquifer contamination will be ensured by: “(developing) a *Storm Water Management Plan* and (completing) a *Screening Level Risk Assessment*”. **These ill-defined plans do not inspire confidence, given that TBT was never analyzed, and considering that current plans are to excavate the hotel foundations within the aquifer.**

Deep sediments

The plans to build new docks and other facilities on the foreshore mean that sediments in these areas will have to be dredged. Apparently, Balanced never sampled or otherwise documented the contamination of these sediments, which belong to the Crown. Given the presence of a fueling station and upgradient activities, there is little doubt that the harbour sediments are contaminated. Balanced estimate that 7,150 m²/16,000 m³ of sediments will be dredged; though these numbers are outdated because the latest development proposal increases significantly the area to be dredged.

Balanced Environmental's prescriptions for mitigating potential impact from dredging are vague, and include:

1. Implementation of generic Best Management Practices
2. Implementation of a Sediment and Erosion Control Plan
3. Implementation of a Spill Response Plan

I am not confident that the proposed measures will mitigate the possible release of a toxic plume of hydrogen sulphide or will prevent contamination of the eel grass beds outside the harbour breakwaters. Since these contaminated sediments are on Squamish territorial lands, the Squamish Nation will also likely be very concerned that these planned activities could impact the herring, salmon and other marine life present in these waters.

Lack of Confidence in Process

Since the town is responsible for administering the site profile, I felt it was important to help town staff understand the risks associated with contamination at this site. I met with the town planner and presented my concerns in May 2013. I also offered to present my review of the EA as a delegation before Town Council, given that the question of site contamination has been raised several times in council meetings. All my requests have been declined.

Although the project EA was prepared by Balanced for an earlier version of the George Hotel development, it appears to still be accepted as the standing document for this project. Despite continuous communications with town staff and Council, including providing a detailed summary of deficiencies in the existing EA (January 3, 2014), there has been no amendment of the standing EA, nor any possibility of discussing the deficiencies publically with Town Council.

There appears to be a move to hold Public Hearings on the project imminently, reflecting a desire of the Town of Gibsons to "fast-track" this project. This would mean that town folks could be asked to assess this proposal and provide input at the Public Hearing – upon which the fate of the George Hotel will be decided – without knowing the full facts and the risks that toxic contaminants pose, both on land and in the marine environment. **For people like me, who are concerned about potential contamination of the aquifer, such an expedited process gives no confidence that due process will be followed and risks will be avoided.**

Summary and Conclusions

Balanced has characterized some of the contamination in soils and sediments on the Hyak property, but it is evident they neglected to look for the most toxic contaminant – TBT – or sample sediments to be dredged in the harbour. **The test results from my own investigations indicate that TBT is present on this site at concentrations that pose a high risk (>2.5 µg/dry g).**

This contamination threatens the interests of the Federal and Provincial Crown, as well as those of the Squamish Nation. As such, its management and mitigation ought to draw their scrutiny. While Balanced described measures to deal with the site contamination, their plans are generic, and essentially ask that we trust them. Given the above interests, as well as the proximity of the site to our aquifer, there is too much at risk to accept such blind assurances.

On this basis, I wish to formally complain to BC MoE that **contamination at the Hyak Marine property has not been properly assessed and that the proposed George Hotel development presents an unknown, and potentially significant, risk to the environment.** I request that BC MoE oversee proper characterization of this site and review proposed measures to mitigate all risks, in order to reassure all concerned parties that the site will be remediated diligently and competently.

Respectfully,



André Sobolewski, Ph.D.
President
Clear Coast Consulting, Inc.



Figure 1. General layout of Hyak property and sediment sample location (labelled yellow pins) for TBT analysis.