



Diamond Head Consulting Ltd.

3205 West 13th Ave.
Vancouver B.C.
V6K-2V6

MEMORANDUM (Via E-mail: 3 pages)

TO: Bruce Nidle, Pottinger Gaherty Environmental Consultants Ltd.
FAX:
CC:

FROM: Diamond Head Consulting Ltd. (DHC)
(Trevor Cox)

RE: **Follow up from Dr. Karel Klinka's assessment of the Cape Roger Curtis property.**

The following comments are in reference to Dr. Karel Klinka's report titled *Ecological Assessment and Considerations in Developing the Cape Roger Curtis Property*, dated May 2005.

Dr. Klinka has determined that the entire property is within the Very Dry Maritime Coastal Western Hemlock (CWHxm) Biogeoclimatic subzone and does not include a transitional area to the Coastal Douglas-fir subzone (CDFmm1) as mapped by DHC. What does this mean? The CDFmm1 is located in the southwestern portion of BC, including many of the Gulf Islands, southern Vancouver Island and a small portion in South Surrey. Due to the extent of urbanization and logging in these areas, there are few large tracts of native ecology left. Many of the parcels are highly fragmented. As a result, the ecology of the CDF is quite rare in British Columbia. Whereas the CWHxm subzone occurs adjacent and above the CDF and occupies a much larger area in BC. Its range extends from the east side of Vancouver Island (above the CDF where present) as far north as Kelsey Bay, and on the islands around southern Johnstone Strait. On the mainland it extends up the south side of the Fraser River as far as Chilliwack and along the Sunshine Coast as far as Desolation Sound. Therefore, in general, the ecology at the property is not as rare on a regional and local scale because its geographical extent within BC is much larger than the CDF and locally because it is found throughout Bowen and the Sunshine Coast.

In his report, Dr. Klinka recommends a number of items to address in conducting future work at the property. It should be noted that some of his recommendations are in reference to an established methodology for ecological assessment in the forest industry which has many aspects that are not applicable or useful for a developer or the municipality of Bowen. The ecological assessment conducted by DHC was to provide an overview assessment of the property while realizing that more detailed work may be required once the initial planning information from a number of disciplines was synthesized and interpreted.



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Dr. Klinka recommends 11 considerations in “developing the property in an environmentally –sensitive and non-controversial manner”. Comments regarding his recommendations and how they might be incorporated into the planning for this property are included:

1. *Mapping of surface deposits, especially fine-textured marine deposits.* This is to ensure that these soils are not unduly compacted during development and so that the natural flow of water is not impeded which may impact certain plant communities. This item can be addressed in the future by through a hydrological and ecological consultant.
2. *Revising the site series maps and assigning unique numbers to polygons.* By no longer calling the property in transition to the CDFmm1 subzone, new labels will need to be applied to the ecological map and the environmental assessment will have to have a quick revision. This may be required by the municipality.
3. *Delineating non-forested shoreline bluffs as monotypic mapping unit (polygon).* Conducting this work may not be necessary if more detailed mapping is needed to determine potential sites for development (see bullets 5-11).
4. *Predicting further development of old, red alder communities.* This work is only necessary in areas that may be retained (as mentioned in bullet 5).
5. *Identifying productive red alder, Douglas-fir and grand fir stands, for potential preservation/recreation (to be selected by an arborist).* This work can be done with the planning team, taking into account other considerations like tree hazards and the location of proposed roads, structures, utilities and other reserve areas. Once the planning team has reviewed the potential areas to locate all these items, a more detailed site analysis will be needed.
6. *Identifying cohorts of old-growth trees and old bigleaf maple for potential preservation/recreation (to be selected by an arborist).* This work can be done with the planning team, taking into account other considerations like windthrow potential and the location of proposed roads, structures, utilities and other reserve areas. Once the planning team has reviewed the potential areas to locate all these items, a more detailed site analysis will be needed.
7. *Minimizing removal of forest cover in developing the property.* This work can be done by field fitting the potential development plan so that the impact to trees is minimized. Consultation with an arborist through the planning stages is necessary to accomplish this item.
8. *Maintaining buffers along the two watercourses.* This has already been recommended by PGL.



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9,10,11 *Providing public access to shoreline bluffs by a major trail (identifying the frequently visited coves and viewpoints). Avoiding any development of shoreline bluffs. Limiting close-to-shore development to several isolated clusters located within the least sensitive sites.* Those areas along the shoreline that are least sensitive will need to be identified. Those areas determined appropriate for recreation access and development should have covenants placed on the nearby vegetation and fencing to deter people from entering sensitive ecology.

Taking into account the recommendations from Dr. Klinka, there are many items that should be discussed before proceeding too far into the planning stages of the development. Please let us know how you and the client would like to proceed.

If you have any questions about the material covered in this memo please do not hesitate to contact Trevor at 604-617-3916.

DIAMOND HEAD CONSULTING LTD.

Per:

Trevor Cox, ISA Certified Arborist,
Provisional Member CIP.

Mike Coulthard, R.P.Bio., R.P.F.