

Carrina Maslovat, R.P.Bio.

carrina.maslovat@icloud.com

175 Stewart Road, Salt Spring Island, BC. V8K 2C4

(250) 893-7305

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Sheringham Point Lighthouse Preservation Society
P.O. Box 1002
Sooke, BC. V9Z 1J1

Dear Michael Galizio,

Thank you for your invitation to review the Timber Harvest Plan prepared by Strathcona Forestry Consulting for Guiding Owl Investment Company. I have read the conservation covenant, reviewed the timber plan prepared for Lighthouse Lot 1, and conducted a preliminary site visit to assess the proposed development area.

As a biologist, a comprehensive understanding of the legal intention of conservation covenants is not within my expertise. However, given the general intent of the conservation covenant outlined in Section 3.1 to “prohibit clear cutting or production logging of the Land and to respect the natural forest ecosystem integrity, natural habitat and visual quality of the land”, my interpretation of the covenant is that it was intended to guide forestry to selective harvests plus clearing of Permitted Development Areas and access routes. Permitted Development Areas were to be “not more than one hectare each and located on the land such that the one hectare includes a location for which a building permit authorizing the construction of a residence has been issued...”. I strongly recommend that the Sheringham Point Lighthouse Preservation Society consult with a legal authority to confirm whether clearing of the scale proposed in the timber plan is permitted by the covenant.

As a Registered Professional Biologist, I do not believe the proposed Timber Harvest Plan meets the general intent of the conservation covenant as noted above. Although Section 3.5 of the conservation covenant allows the cutting and removal of trees under an approved harvesting plan, it requires that the plan “maintains ecosystem function, considers and preserves biodiversity, avoids clearing or disturbance of more than 20% of the Land in any five year period, prevents or minimizes disturbance to any watercourse of over land drainage, preserves Raptor Trees and mature snags, protects the land from soil erosion or compaction, minimizes soil and under growth disturbance and includes a reforestation plan”.

Although the timber plan prepared by Strathcona Forestry Consulting notes these limitations, I do not believe that the proposed clearing of 6.5 hectares on Lot 1 for development for residential purposes “maintains ecosystem function”, “considers and preserves biodiversity”, nor “prevents or minimizes disturbance to any watercourse of over land drainage”. Although the plan notes mature snags and makes preliminary recommendations for protecting the land

from compaction and erosion and minimizing disturbance, some of the recommendations are contradictory and more details are required to ensure these key ecological issues are considered during timber harvest.

Fundamentally, the Timber Harvest Plan does not provide enough details to allow a full assessment of the proposed activities. The location of the road access for the residential development is not identified, nor is the proposed building site. Access to the lot for timber harvest has not been delineated. Without knowing the location of this proposed infrastructure, it is impossible to determine the full impacts from the work and whether ecosystem function will be negatively impacted by erosion and disturbance of watercourses.

Most importantly, the plan does not clearly describe which development activities are intended for the area. Although the intention is “*to develop Lot 1 for residential purposes*”, it is unclear if this includes removing only conifer trees of a merchantable diameter, removing all trees for viewscape or clearing all vegetation from the lot. Each of these activities will have drastically different degrees of impact on the ecosystem function and biodiversity of the lot. Given that much of the central and northern portion of the road is Red Alder thicket, clearing only merchantable timber will have a much smaller ecological impact than clearing all trees for a viewscape. This should be clarified in the plan to allow proper assessment of these activities.

Although the Timber Harvest plan purports to follow the *2014 Develop With Care - Environmental Guidelines for Urban and Rural Land Development in BC*, there are key elements of these guidelines that are not addressed in this plan. The *Develop With Care* guidelines recommend that environmental mapping and inventory be conducted before designing the development layout and before initiating land clearing activities (Page 3-5). I see no indication that the current plan has consulted community or regional level mapping and inventories (e.g., to determine sensitive ecosystems, wildlife corridors, etc.), the plan has not identified the water balance and flow patterns of the site including seasonal runoff nor has it identified opportunities for ecosystem restoration (Page 3-5). The inventory done for the plan does not map the locations of Environmentally Valuable Resources (Page 2-5) including rocky outcrops and wetlands, seepages and vernal pools (including areas even if they are wet for only a few months each year). Although snags are noted, their location is not mapped, and protection measures are not included. There are no measures outlined in the plan to retain and protect existing environmental resources (Page 3-8) and there is no site design so it is impossible to determine if the design will retain ecosystem features and functions as recommended in the *Develop With Care* guidelines (Page 3-8).

From my cursory observation of the site, there are many Environmentally Valuable Resources in the proposed area which should be protected. This includes rocky outcrops with native wildflowers including Seablush and Blue-eyed Mary. There are a number of wetlands on the property including Red Alder swamps and salmonberry thickets. There are areas with seasonal spring seepage and drainage ditches which are important for retaining hydrologic function. These ecological features are essential for retaining the biodiversity and ecosystem function of the site and protection measures for these features should be included in the timber plan.

Recommendations should also be included for retaining understory vegetation and non-target tree species as well as preserving the snags noted in the timber plan.

Some of the measures recommended in the plan to minimize soil erosion are not appropriate for maintaining ecosystem function, most notably activities which impact hydrology. Armouring ditches with non-erodible materials and installing culverts are contradictory to maintaining natural soil drainages and maintaining natural hydrologic cycles to retain biodiversity function. As recommended in the *Develop With Care* guidelines, development should “ensure that natural (pre-development) hydrological cycles are maintained during and after development, including the presence of small seeps and wetlands”. Both wetlands and seasonal seeps are present within the target area in Lot 1 but they have not been mapped in the harvest plan and measures for their protection have not been included.

There are also important Recreational Valuable Resources associated with the lighthouse and public trail. Section 3.6 of the conservation covenant states “Except as permitted in Sections 3.3 and 3.4 of this Covenant, the Grantor covenants and agrees that it will not cut, trim, damage, defoliate or remove any tree within 15 metres of the boundary of any statutory right-of way registered on the Land for pedestrian trail purposes”. These setbacks should include 15 metres from the trail from Lighthouse Point Road to the lighthouse and setbacks from Lighthouse Point Road itself (which serves as part of the pedestrian trail and is signed as such). On the map provided with the timber plan (Page 5), the setbacks from Sheringham Point Road appear to be only 6 metres north of the road and are not included in the area south of the road. Legal council should be consulted to confirm that these setbacks are required under the conservation covenant.

The best approach to protect the ecological integrity of the site is to limit clearing to a 1 hectare building lot, located away from Environmentally Valuable Resources. In order for clearing activities to maintain ecosystem function, consider and preserve biodiversity, and prevent or minimize disturbance to any watercourse or over land drainage and thereby meet the restrictions outlined in the conservation covenant, the following measures should be followed. Many of these recommendations are from the *Develop With Care* guidelines:

1. Provide a clear timber plan that describes proposed activities in sufficient detail to allow external evaluation.
2. The plan should include consultation of established community, regional and provincial resources to identify sensitive ecosystems, species at risk and drainage patterns to inform environmental mapping and inventory.
3. An on-site inventory of Environmentally Valuable Resources must be made including sensitive habitat (e.g., rock outcrops, wetlands, etc.) and water balance and flow patterns. These features should be mapped in the timber plan and there should be measures provided to ensure they are protected. Measures should include the following:
 - a. Confirm buffer distances in *Develop With Care* guidelines for Environmentally Valuable Resources (e.g., rock outcrops, wetlands, seasonal seepages, snags, etc.) and ensure heavy equipment is not allowed within these buffer areas to

- prevent soil erosion and disturbance of these sensitive sites, protect snags, and prevent disturbance to natural hydrologic regimes.
- b. Maintain natural water flows for surface drainage and groundwater flow by avoiding wetlands and seasonal seepage areas, even if they don't retain water year round. Healthy wetlands help protect water quality if sediment or pollutants are released.
 - c. During site clearing, permanent or temporary fencing should be installed around Environmentally Valuable Resources to protect them. An onsite monitor should ensure these areas are not disturbed.
 - d. Temporary fencing should be installed around any trees to be retained to prevent their root zone.
 - e. Environmentally Valuable Resources should be mapped, and the map should be posted for all subcontractors and site workers.
 - f. Reduce soil compaction by avoiding machinery use next to Environmentally Valuable Resources and any other vegetation which will be retained.
4. Recreational Valuable Resources should be identified in the plan and measures described to ensure the visual quality of the land is maintained.
 - a. Retain leave strips next to public trail areas including Lighthouse Point Road and the trail down to Sheringham Lighthouse of an absolute minimum of 15 metres of the boundary of the statutory right-of-way which is registered on the land for pedestrian trail purposes (as per Section 3.6 of the conservation covenant). Larger leave strips may be required to maintain the visual quality of the land in this important recreational area.
 5. Ensure all heavy equipment is cleaned prior to being delivered onsite to limit the spread of invasive species from other areas.
 6. The timber plan should minimize the area cleared for construction and retain as much native vegetation as possible and leave adequate natural vegetated buffers between protected areas and houses or roads (*Develop With Care* Page 3-10).
 7. Any revegetation required should use native species that are currently found on site. A comprehensive revegetation plan should be developed as part of the timber plan.
 8. All onsite work should be done during identified timing windows to avoid impact to nesting birds and limit erosion/soil disturbance.
 9. Ensure a Qualified Environmental Registered Professional is present to monitor the site during land clearing and construction. The QEP should have the authority to stop work if necessary.
 10. Leave large logs and topped trees that have been fallen on the ground in undeveloped areas and future greenspace to serve as habitat for small mammals, amphibians and invertebrates.
 11. Design for narrow roads with infiltration swales to use less land and to create less impervious surfaces.

Following the intent of the conservation covenant will have positive benefits for Guiding Owl Investment Company. According to the *Develop With Care* guidelines referenced in the Timber Harvest Plan, "retention of trees and greenspace helps sell properties faster and for higher

prices. Homeowners are willing to pay at least 5–15% more for properties near natural open space”. Development costs can also be lower. Ensuring that development activities maintain ecosystem function and preserves biodiversity will likely result in higher property values and less costs for the investment company.

Thank you for the opportunity to provide my professional biological opinion on this project. I look forward to working with you more in the future.

Yours sincerely,

A handwritten signature in blue ink that reads "C. Maslovat". The signature is fluid and cursive, with a large initial "C" and a stylized "M".

Carrina Maslovat, M.Sc.