

February 25, 2025

Nicole da Silva, RPBio & Carter Case, B.I.T. Corvidae Environmental Consulting Inc 6526 Water Street Sooke, BC V9Z 0X1 Andrea Pickard, Environment and Parks District of Central Saanich 1903 Mount Newton Cross Road Saanichton, BC, V8M 2A9

### Re: Letter of Assessment for proposed retaining wall and pool at 8012 Turgoose Terrace

To Andrea Pickard,

On May 24<sup>th</sup>, 2024 and January 24<sup>th</sup>, 2025, site visits were conducted by Corvidae Environmental Consulting Inc. (Corvidae) at 8012 Turgoose Terrace (the Property; PID: 000-832-898; LOT 22 PLAN VIP14876 SECTION 4 RANGE 4E SOUTH SAANICH). The Property is in the Marine Shorelines Development Permit Area (DPA), as per the Central Saanich Official Community Plan. The landowners are applying to amend an existing development permit (PL001641) to construct a retaining wall along a section of the west shoreline of the Property. The construction of a backyard pool has also been approved under a separate building permit (BP003237) and must be amended due to design changes.

This Letter of Assessment (LOA) addresses the proposed permit amendments for the updated project designs (Figure 1 and Appendix B). This LOA describes the environmental conditions on the Property, provides recommendations for the protection of the marine shoreline, and addresses the Marine Shorelines DPA guidelines. Photos of the Property are included in Appendix A.

The proposed retaining wall will be constructed on a steep shoreline slope. The slope has been assessed by a geotechnical professional and it was determined that the slope is subject to erosion, which poses a risk to the existing structures on the Property. To prevent further erosion of the slope, the wall will be built upland of the present natural boundary next to the existing stone patio (Figure 1). All existing vegetation will be removed from the area and soil will be excavated through a combination of hand digging and machine work. The retained area behind the wall will be filled with soil and replanted with native vegetation as recommended by Corvidae (Table 1). The wall will be pinned to stable bedrock with the face of the wall located at least 1 m from the crest of the rocky slope. No construction is to occur outside of the PNB of the Property. The current retaining wall design will be approximately 25 cm thick, and a maximum of 4 m in height.

The proposed backyard pool will run east to west directly to the north of the current single-family home (Figure 1). The pool will be approximately 17.5 m in length and 4 m in width. Construction will require the removal of a stone wall and stairs. The installation of the pool will require blasting due to the prevalence of bedrock within the construction footprint.

#### FIELD ASSESSMENT RESULTS

Most of the Property is occupied by the existing residence, driveway, and landscaped areas. The backyard, which fronts the marine shoreline, is composed of grass lawn and patio areas, and has a gradual slope (approximately 10%) toward the shoreline. The shoreline is steeply sloped (approximately 50%) and has been previously modified in some areas through "hard" shoreline protection measures (i.e., seawalls, retaining walls).

Where the retaining wall is proposed, the shoreline is characterized by exposed bedrock. The upper sections of the slope are vegetated and have eroding soils. Vegetation on the slope consists of native shrubs (i.e., oceanspray, dull Oregon-grape, snowberry, and salal) mixed with invasive species (i.e., Himalayan blackberry, periwinkle, spurge-laurel). One tree, a young Garry oak, grows at the top of the slope. Where the pool is proposed, the area is highly landscaped and disturbed.

#### RECOMMENDATIONS

The proposed retaining wall will alter the marine shoreline ecosystem on the Property through the temporary removal of vegetation and change in physical processes (i.e., shoreline erosion). Construction of the proposed pool will require the removal of bedrock, soils, and lawn area. The following measures are recommended during construction to reduce potential environmental effects and protect the marine environment.

#### Protection of the Marine Shoreline

- There will be no disturbance below the natural boundary. All construction will be completed from the top of the slope.
- Prior to excavation and slope disturbance adjacent to the marine environment, install sediment control measures to capture falling debris. For example, place a tarp on the shore at the toe of the slope or install a catch net on the slope.

#### **Vegetation**

- Retain existing native vegetation where possible.
- Once construction is completed, the area above the retaining wall will be replanted with native vegetation. Table 1 provides a list of species suitable for the project area. Shrubs should be planted 1-2 m apart, and groundcover/herbs should be planted approximately 50 cm apart.
- Invasive species in the retaining wall and pool footprint should be removed and disposed of appropriately, as described in Table 2.
- Machinery will arrive to site clean to ensure that weed seeds and other propagules (e.g. pieces of root) are not brought into the project area.
- All material used onsite must be inert and weed-free.



| Common Name           | Species                           | Spacing |
|-----------------------|-----------------------------------|---------|
| SHRUBS                | •                                 |         |
| Baldhip rose          | Rosa gymnocarpa var. gymnocarpa   |         |
| Common snowberry      | Symphoricarpos albus              |         |
| Dull Oregon grape     | Mahonia nervosa                   | 1 – 2 m |
| Evergreen huckleberry | Vaccinium parvifolium             |         |
| Red flowering currant | Ribes sanguineum                  |         |
| Oceanspray            | Holodiscus discolor var. discolor |         |
| GROUNDCOVER / HERBS   |                                   |         |
| Kinnikinnik           | Arctostaphylos uva-ursi           | 50 cm   |
| Sword fern            | Polystichum munitum               |         |

#### Table 2. Removal and disposal methods for invasive species

| Species                 | Removal Method  | Plant Disposal   |
|-------------------------|---|--|
| Common periwinkle       | Remove by hand pulling and cutting vines. Roots should be pulled so no rooted portions re-grow.   | Burned or bagged and disposed of properly in a landfill. Do not compost.   |
| Himalayan<br>blackberry | Pull canes from the ground and dig out root ball. If root ball is not removed, plant will re-sprout.  | Burned or bagged and disposed of<br>properly in a landfill. Do not compost.  |
| Spurge-laurel           | Pull small plants or cut larger plants just below the<br>soil. Stems may re-sprout after cutting and numerous<br>seedlings may germinate. Always wear gloves when<br>handling spurge laurel because it produces a noxious<br>substance which can cause severe eye and skin<br>irritation. Avoid spreading berries during removal. | Removed plants should be bagged and<br>disposed of properly in a landfill. Do no<br>transport inside an enclosed vehicle as<br>the plants can cause respiratory<br>irritation. |

#### <u>Wildlife</u>

• If vegetation removal is to occur within the migratory bird nesting period (March 15 – August 15), a Qualified Environmental Professional (QEP) should complete a pre-clearing survey for nesting birds and should implement the appropriate mitigation for any active nests.

#### Erosion and Sediment Control

- Heed weather advisories and schedule work to avoid excessively rainy periods (>10 mm in 24 hours) that may result in high volumes of runoff. Cover exposed soils with tarps during rainfall events.
- Silt curtains must be installed between the marine environment and proposed retaining wall footprint to prevent the mobilization of sediment laden water within the marine environment.
- Store materials in dry, flat areas outside of the Marine Shoreline DPA.
- Disturbed areas outside of the retaining wall should be replanted (see Table 1) upon completion of construction to stabilize soils and prevent erosion.

#### Pollution Control, Fueling and Spill Response

- All construction equipment accessing the Property should be in good working order. Any leaks should be repaired prior to commencing work.
- Fueling of equipment will be done with drip-trays underneath on site, on the road, or set staging area. There will be no fueling of equipment within 30 m of the shoreline (within 15 m of the edge of the 15 m Marine Shorelines DPA).
- A spill kit capable of handling the largest potential spill on the worksite is recommended to be kept on site. The kit should contain at least the following materials or equivalent:
  - absorbent pads (hydrocarbons and antifreeze)
  - absorbent socks (oil, gas & diesel)
  - a jar of plug 'n' dike (leak stop compound)
  - 1 spill instruction sheet
- Do not allow wash-down water from concrete-pouring equipment and tools to enter the shoreline or marine environment. Clean all equipment and tools off-site or collect wash-down water in a container or bucket for proper disposal off-site.

#### SUMMARY

The project includes installation of the retaining wall to stabilize the slope from erosional processes, installation of the new pool, removal of invasive species, and revegetation of these areas with native species adapted to the environment. The wall is required to stabilize the slope to the west of the home and prevent erosion that poses a risk to the existing structures. Provided all mitigations are followed throughout the project, the environmental impacts will be minimized.

Please contact the undersigned with any questions or comments.



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## **APPENDIX A – SITE PHOTOS**

Photo 1. View east of slope (proposed retaining wall location). May 24, 2024.



Photo 2. View north of proposed retaining wall location. November 10, 2023.







Photo 3. View west from top of slope. May 24, 2024.



Photo 4. View southwest of existing vegetation at top of slope. May 24, 2024.







Photo 5. View west of the western extent of the proposed pool, outlined with orange spray paint. Jan 24, 2025.



Photo 6. View northwest of where the silt curtain must be installed during the construction of the retaining wall. January 24, 2025.



