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Deputy Director of Development Services
City of Langley
City Hall
20399 Douglas Crescent
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September 16, 2024

ESA Habitat Compensation Valuation for 20525 & 20541 46A Avenue, City of Langley.

Hello Roy;

As requested, I have put together a generic formula to determine the cost of compensation for works within an Environmentally Sensitive Area (ESA). Works occurring within sensitive habitats require a compensation planting of native species at a ratio of 1 plant per square metre. Typically, planting lists have a ratio of 1 tree:3 shrubs, with trees being in the 1 to 2 metre height (5-gallon pot). The determination of the planting density and ratio is based on several guiding documents:

- Province of British Columbia: Riparian Restoration Guidelines (March 2008)
https://www.env.gov.bc.ca/lower-mainland/electronic_documents/RiparianRestorationGuidelines.doc
- Species at Risk Voluntary Stewardship Practices or: Guidance for Restoration Activities in Riparian Areas. (December 2013). Prepared by Mike Pearson, PhD. RPBio: and DG Blair M.SC.
http://stewardshipcentrebc.ca/PDF_docs/sar/GuidanceforRestorationActivitiesinRiparianAreasPilot12-2013.pdf

For the properties in question (20525 & 20541 46th Avenue) the total area of impacted ESA is 2,872 sq. metres. With the City's requirement of a 2:1 ratio for works that create a loss of habitat the adjusted impacted area is 5,744 sq. metres.

With a requirement of one plant every sq metre the total number of plants required to offset the proposed impacts is 5,744. In discussions with several suppliers of native plants the average price for native plants (shrubs in 1-gallon pots and trees to 5-gallon pots) is \$23.00/plant. The total estimated cost for the plant is \$132,112.00.

In addition to the fees for the planting stock is the cost of installation. Installation requires the preparation of the site, bring in additional topsoil to help the plants establish, and the labor fees for installation. Based on discussions with several suppliers a rate of \$12.00/plant can be used to estimate the total fees for installation. Assuming 5,744 plants the installation fees will be approximately \$68,928.00.

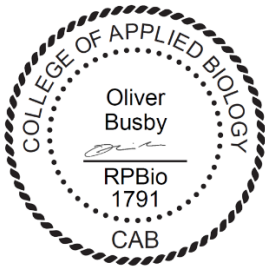
A final consideration is the assurance that the plants will have a suitable survival, 80% is required by both the Federal Department of Fisheries and Oceans Canada as well as the Provincial Water Sustainability Branch. To ensure these values are met survivability surveys are completed in

Year 1, 2,3,5,7 and 10. Typical surveys fees are \$1200 to \$1500 per year. Assuming an average of \$1500.00 (to account for inflation) and additional charge of \$9,000.00 is to be considered when determining the cost of compensation.

The total cost of compensation for the 2, 872 sq. metres of ESA is \$201,040.00 (excluding taxes).

If you have any questions, please feel free to contact me at your convenience.

Regards;



Oliver Busby, MBA, RPBio
Principal
EBB Environmental Consulting, Inc.

I certify that the work described herein fulfills standards acceptable of a Professional Biologist.