

APPENDIX C: Costing Sheet

COSTING SHEET FOR ENVIRONMENTAL SECURITIES

This costing sheet is provided for convenience to assist Qualified Environmental Professionals (QEPs) in ensuring that all tasks are identified and costed out for the implementation of the restoration and enhancement strategy. Where an item is not required please indicate 'n/a' along with a description. Please fill in details in the 'details/ calculated variable' column in order to simplify City staff review of the environmental security cost estimate. For an electronic copy of the sheet, please contact an Environmental Coordinator.

Task	Details / Calculated Variable	Cost per Unit	Number of Units	Est. Cost	Est. Cost plus 10%
Physical Work					
Site Preparation (a)					
invasive plant removal	N/A - no invasive plants <u>OR</u> x hrs @ \$x /hour			\$	\$
topsoil	N/A - good top soil on site, no excavation required <u>OR</u> x m3 (based on x m2 area by x mm average depth)			\$	\$
excavator and operator	N/A - no excavator work necessary <u>OR</u> x hrs @ \$x/hour			\$	\$
other	indicate variable			\$	\$
*Subtotal Site Preparation				\$	\$
Hardscaping Materials (b)					
temporary fencing	based on x m of fencing			\$	\$
permanent fencing	based on x m of fencing			\$	\$
signage	based on x signs			\$	\$
pest barriers	\$x / vole protector <u>OR</u> \$x / beaver guard			\$	\$
mulch	x m3 (based on x m2 area by x average depth)			\$	\$
habitat complexing (CWD, LWD)	average \$x / piece by x pieces <u>OR</u> \$x / x m2 area			\$	\$
wildlife passage (indicate type and length)	\$x / m by x m			\$	\$
wildlife passage inlet/outlet and interior structures	average \$x / piece by x pieces <u>OR</u> \$x / x m2 area			\$	\$
rock material (indicate what it is for)	x m3 of rock delivered			\$	\$
spawning gravel	x m3 of spawning gravel delivered			\$	\$
bat/bird box	\$x / box			\$	\$
other	indicate variable			\$	\$
*Subtotal Hardscaping Materials				\$	\$
Hardscaping Installation (c)					
fencing and signage installation	x hrs @ \$x /hour			\$	\$
mulch installation	x hrs @ \$x /hour			\$	\$
installation of habitat complexing (CWD, LWD)	x hrs @ \$x /hour			\$	\$
installation of wildlife passage, including associated structures	x hrs @ \$x /hour			\$	\$
installing instream habitat enhancements	x hrs @ \$x /hour			\$	\$
other	indicate variable			\$	\$
*Subtotal Hardscaping Installation				\$	\$

COSTING SHEET FOR ENVIRONMENTAL SECURITIES *continued*

Task	Details / Calculated Variable	Cost per Unit	Number of Units	Est. Cost	Est. Cost plus 10%
Softscaping Materials (d)					
trees (indicate pot size and total number)	average \$x / tree by # trees			\$	\$
shrubs (indicate pot size and total number)	average \$x / shrub by # shrubs			\$	\$
groundcover (indicate pot size and total number)	average \$x / groundcover by # groundcover			\$	\$
seed (indicate if hydroseed or hand-seed)	# bags/ x m2 @ x seed/x m2 coverage			\$	\$
other	indicate variable			\$	\$
*Subtotal Site Preparation				\$	\$
Softscaping Installation (e)					
plant installation	x hours @ \$x/hour			\$	\$
pest barrier installation	installed during planting <u>OR</u> x hours @ \$x/hour			\$	\$
other	indicate variable			\$	\$
*Subtotal Softscaping Materials				\$	\$
Restoration of Temporary Impacts (f)					
add rows for applicable items (e.g. topsoil, mulch, plants, guards, habitat complexing, etc)	indicate variable			\$	\$
*Subtotal Temporary Impacts				\$	\$
TOTAL PHYSICAL WORK (all Tasks a-f)				\$	\$
Monitoring and Reporting					
construction monitoring	x visits x hrs @ \$x /hour			\$	\$
prepare post-construction report	x hrs @ \$x /hour			\$	\$
post construction inspection with the City	x hrs @ \$x /hour			\$	\$
*Subtotal Construction				\$	\$
annual monitoring	x visits/year x #years of monitoring			\$	\$
prepare annual monitoring reports	x hrs @ \$x /hour x #years of monitoring			\$	\$
final inspection with the City	x hrs @ \$x /hour			\$	\$
other	indicate variable			\$	\$
*Subtotal Maintenance Period				\$	\$
TOTAL MONITORING AND REPORTING				\$	\$
Maintenance					
watering plants	every (daily/weekly/biweekly/monthly) during (add season) during periods of no rain: x hours @ \$x/hr x years			\$	\$
invasive plant removal	x hrs @ \$x /hour x years of maintenance			\$	\$
repairing or replacing pest barriers	x hrs @ \$x /hour			\$	\$
removing temporary fencing and/or ESC measures when site is stable	x hrs @ \$x /hour			\$	\$
other	indicate variable			\$	\$
TOTAL MAINTENANCE				\$	\$
TOTAL ESTIMATED ENVIRONMENTAL SECURITIES COST				\$	\$

COSTING SHEET FOR ENVIRONMENTAL SECURITIES *continued*

Following the issuance of the Natural Environment Development Permit (NEDP), portions of the environmental security are eligible to be released back to the Applicant based on work completed, as summarized below:

STAGE 1		
The completion of the initial construction works implementing the restoration and enhancement strategy, which includes the costs associated with: a. Site preparation b. Hardscaping Materials c. Hardscaping Installation d. Construction Monitoring and Post-Construction Reporting by the QEP	Total Cost of all BLUE cells in the above table	\$
Requirements prior to environmental securities being released: 1. The post-construction monitoring report completed by the QEP and accepted by the City 2. The completion of a post-construction site inspection by the City and to the satisfaction of the City		

STAGE 2		
The completion of the monitoring stage of the restoration and enhancement strategy, which includes the costs associated with: a. Softscaping Materials b. Softscaping Installation c. Restoration of Temporary Impacts d. Annual Monitoring and Reporting by the QEP e. Annual Maintenance of the Restoration and Enhancement Area	Total Cost of all GREEN cells in the above table	\$
Requirements prior to environmental securities being released*: 1. The post-maintenance monitoring report completed by the QEP and accepted by the City 2. The completion of a final site inspection by the City and to the satisfaction of the City		

*portions of the environmental security may be released annually at the request of the Applicant if annual reporting by a QEP is provided.

Once the City has received the appropriate monitoring reports by the QEP, completed the site inspection, and is satisfied with the condition of area as per the restoration and enhancement strategy, the City will process the release of the appropriate portion of the environmental security. Please note that the release of the securities will take several weeks to process. The City may withhold securities if restoration and enhancement works are not completed in accordance with the approved strategy as per the NEDP.