

Appendix 4. Risk Ledger

#	Risk	Risk Rating	Mitigation and Description	Mitigated Risk Rating
1	Disturbance of Raptor and Heron Nests	High	High levels of disturbance albeit in a highly pre-disturbed area. Recommended buffers to be implemented from develop with care guidelines for this level of activity including 260 m for Herons and 200 m for eagles. Monitoring of bird activity onsite.	Medium-Low
2	Disturbance of Shorebird nests	Low	Existing levels of backshore disturbance are high with off-leash dogs and high pedestrian traffic. Observations of oystercatchers and killdeer are uncommon in the backshore and to our knowledge there have been no detections of nesting, however, surveys in and adjacent to the project area will be conducted.	Low
3	Disturbance of songbird and cavity dweller nests	Medium	Existing levels of backshore disturbance are high with off-leash dogs and high pedestrian traffic. Distance of activity from potential nesting sites is quite high (>50 m) however, surveys in and adjacent to the project area will be conducted.	Low
4	Disturbance of Migrating Birds	Low	Project is in the window that would cause least disturbance to migrating seabirds and shorebirds.	Low
5	Intertidal Marine Life	Low	Project is largely based on the footprint of eroded marsh area with low infaunal diversity and productivity. Other areas also demonstrated low diversity and productivity through infaunal survey. Rock sill structures have been shown to be beneficial to wildlife in marsh areas.	Low

6	Backshore Habitats	Medium	A small section of disturbed sandy backshore area will be impacted to create access to the site. This area will be surveyed for any wildlife prior for salvage. Dune WildRye will be salvaged for replanting. Backshore habitats will be enhanced and created as part of the project.	Low
7	Failure of rock structures; Erosion/transport of materials	Medium	Site is dynamic with high energy and there is expectation of some failure of rock headland features and granular filters as well as movement of nourishment materials. Repairs can be made to the features. Nourishment materials sized and sourced to act as beach nourishment for forage fish as it erodes and is transported.	Low
8	Spill of deleterious materials or pollutants	Medium	Machinery will be onsite. All machines will be inspected routinely and before site entry for signs of leakage and deleterious materials that could be transported. Appropriately sized and located spill kits will be onsite with a spill response plan that is ready to be activated. Machinery will use biodegradable fluids where possible. Contractors and subcontractors will be reputable with maintenance records of machinery to ensure they are in working order. No fueling or maintenance of machinery will happen onsite.	Low
9	Negative public sentiment	High	Improvements to a community resource and environmental area may not be viewed as such. In addition, there are significant levels of NIMBYism and ecological amnesia or 'shifting baseline' syndrome in the greater community. There is also a general distrust of professionals. Education, outreach and engagement around this project have been ongoing since early 2022 and will continue. We will continue to be truthful, open, and transparent around the project's approach, risks, and potential benefits.	Medium
10	Negative political sentiment	Medium	Though there is support for this type of work at federal and regional levels, and we have support for this project at a local level, it is possible that Risk 9 may potentially lead to cold feet politically which could lead to loss or limits to local support. Public engagement processes and communication with staff	Medium

			and council is critical.	
11	Negative Indigenous sentiment	Medium	Though Tseycum First Nation has been collaborative on this project since the beginning, there are various political complications between nations that the project may be caught within. We will continue to work in close collaboration with the Tseycum First Nation and their Marine Stewardship Program.	Low
12	Non-Compliance/ Regulatory	Medium	A project in the coastal zone is subject to many different regulatory bodies however we have identified these and are submitting required documentation for review. Our experience with this size of project allows us to be confident that we can meet and exceed regulatory requirements.	Low
13	Material Procurement, Delivery	Medium	We have hired professionals to help ensure a clean and suitable source is found that meets the required spec for the project. We have identified a number of options and are in pursuit of finalising this important project piece.	Low
14	Plant survivorship/suitability	High	We have identified the species and their elevations required for survivorship and are working with nurseries to ensure plants are 'hardened' or exposed to salt water to ensure they are prepared for the saline environment. Elevations will also be taken before planting to identify areas most suitable for planting. They will be planted the following spring to allow for movement and settling of materials over winter and to give plants the time to root before a winter season.	Low
15	Civil Infrastructure	Medium	It appears that there is very little risk to existing utilities and infrastructure with the exception of some road way wear. A right of way permit will be secured from the town with the necessary insurance and clauses that ensure these infrastructures are identified, documented, and there are avenues and resources available to make repairs as necessary.	Low

16	Public Safety	Low	The route with machines and trucking traffic will be clear with traffic control, signage, and tape closing off areas strategically to ensure there is no risk to public safety.	Low
17	Budgetary	Medium	Though we have budgeted for expenses, project delays, inflation, material procurement and logistics could potentially add to costs. We are currently seeking 'buffer funds' to ensure that there are funds towards repairs, maintenance, as well as being able to create a greater contingency.	Low