

Environmental Effects Determination Report

Pier 12 West Wharf Reconstruction Project

October 27, 2017

Environmental Effects & Associated Effective and Established Mitigation Measures

Environmental Effect - Construction	Effective and Established Mitigation Measures
<p>In-water work / Installation of the SSP wall, which may release a polluting substance into the water:</p>	<p>Refer to Measures to Avoid Harm:</p> <p>http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/measures-mesures-eng.html</p> <ul style="list-style-type: none"> • Applicable permits for relocating fish are obtained and to capture any fish trapped within an isolated/enclosed area at the work site and safely relocate them to an appropriate location in the same waters, <i>if required</i>. <p><i>Turbidity control is not necessary for this project.</i></p> <p>Environment Canada extensively tested turbidity during pile driving activities during the reconstruction of HPA’s Pier 15 West, and found that “In general, turbidity values were not elevated in comparison to background values and in fact were often lower than the background locations on many of the sampling dates.” (page 8, report attached).</p>
<p>On land work, which may release a polluting substance into the water:</p>	<ul style="list-style-type: none"> • Develop and implement an Erosion and Sediment Control Plan for the site that minimizes risk of sedimentation of the waterbody during all phases of the project. <ul style="list-style-type: none"> • For the excavation component, <i>the sheet pile wall will eventually be the sediment control structure during construction.</i> • For the stockpiling excess material, straw bales around stockpiles are required. • Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks. • Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water.

<p>On land work, which may release a polluting substance into the air, such as track out/road dust from soil handling:</p>	<ul style="list-style-type: none"> • Mitigation of truck track out (which is not to extend beyond construction site) by methods such as street sweeping and sealed truck tailgates
<p>Release a polluting substance into the air = noise and vibration:</p>	<ul style="list-style-type: none"> • The City of Hamilton’s Noise By-Law No. 11-285 is in effect. This includes no noise from construction that is clearly audible at a point of reception between 10 p.m. of one day and 7 a.m. of the next day.
<p>Release a polluting substance into the land = excess soils contaminated with SAR, EC, Boron (HWS) and ammonia:</p>	<ul style="list-style-type: none"> • No mitigation measure required for slight SAR, EC and Boron (HWS) exceedances, as they are aesthetic contaminants and not applicable to industrial re-use at Pier 22. • No mitigation required for ammonia, as there is no guideline value for soil – it will be graded to a depth less than 1metre so the ammonia will dissipate.
<p>Affect Worker Health & Safety due to ammonia odour:</p>	<ul style="list-style-type: none"> • Worker’s safety is protected by a minimum of: <ul style="list-style-type: none"> ○ Potential exposure is outdoors (not confined space) ○ Measure safe levels with a PID monitor. <ul style="list-style-type: none"> ▪ Exposure limits example: 25 ppm for up to 8 hours or a short term exposure limit of 35 ppm based on 15 mins (odour detection can be as low as 1 ppm). ○ Dissipate the odour with large fans, and/or working upwind. ○ Refer to appropriate SDS (see sample Attachment B).