

Kimvar Enterprises Inc.  
 Big Bay Point Resort Development – Monitoring Program Matrix  
 Stages 1A & 1B Grubbing and Golf Course Topsoil Stripping (Outside of treed areas)  
 October 2010

Study/Report Reference	Component	Potential Impact	Proposed Mitigation Action	Monitoring Protocol			Reporting Protocol		Response to Monitoring Outcome
				Methods	Frequency / Timing	Duration	Content	Reporting Period	
Stormwater Management and Monitoring Report	Water quality of Lake Simcoe	Turbidity and TSS increase in Marina Basin due to localized runoff from grubbing operations and potential of entering Lake Simcoe	<ul style="list-style-type: none"> <li>Installation of cut off swales equipped with rock check dams in each swale prior to stump removal and topsoil stripping.</li> <li>Installation of ESC ponds to be installed prior to stump removal and topsoil stripping.</li> <li>Installation of additional sedimentation control fencing around disturbed and/or sensitive areas or areas that may discharge to marina basin, wetland areas or drainage channels</li> <li>Maintenance, as required, of geotextile silt curtain(s) across marina basin channel</li> </ul>	<ul style="list-style-type: none"> <li>Visual inspection of all ESC measures and silt curtain(s) to ensure in good working order</li> <li>Visual inspection of marina basin isolated by silt curtain #1 for signs of turbidity</li> <li>In the event of observed turbidity and/or TSS in basin, water quality sampling program initiated as per triggers identified in Section 8.2.1.3, SCS, 2009 Stormwater management and monitoring report</li> <li>Contractor education program to be carried out and implemented for all works carried out on site with regular follow up by the project administrator</li> </ul>	<ul style="list-style-type: none"> <li>Weekly by project consultants</li> <li>Daily by Contractor and on-site project administrator and prior to and immediately following any significant runoff event during periods of activity on site</li> <li>Daily, as required, by Hutchinson Environmental Sciences Ltd.</li> </ul>	Immediately prior to commencement of stump removal operations and/or topsoil stripping throughout grubbing operations until installation of coffer dam complete.	<ul style="list-style-type: none"> <li>Report characterizing conditions of ESC measures, including site visit reports</li> <li>Map indicating location of ESC measures</li> <li>Photographic inventory</li> <li>Response recommendations</li> </ul>	<ul style="list-style-type: none"> <li>Monthly, or following a significant runoff event</li> <li>Reports to be submitted to Town and LSRCA</li> <li>Copy of all reports and inspection records to be maintained on site by contractor and project administrator</li> </ul>	<ul style="list-style-type: none"> <li>Increase number of rock check dams and locations to filter and settle out particulate matter</li> <li>Install additional ESC measures. Sedimentation control fence, etc.</li> <li>Utilize on-site generated mulch to cover disturbed areas from rain impact and consequential erosion</li> <li>Deploy contingency silt curtain to protect marina basin from Lake Simcoe</li> </ul>

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Erosion and Sediment Control Plans	Construction Methodology Impacts	<ul style="list-style-type: none"> <li>Refueling activities in proximity to Lake Simcoe and EP lands</li> <li>Construction activity beyond Tree preservation fencing, adjacent the Marina Basin or limits of development</li> </ul>	<ul style="list-style-type: none"> <li>Prohibition on refueling and storage of fuel or maintenance activities within 100 meters of the Marina Basin, sensitive environmental features and EP lands</li> <li>Requirement for contractors to establish refueling and equipment maintenance stations in locations approved by the project administrator</li> <li>Provision in final contract for award, and as minuted at pre-construction meeting that no works to be undertaken beyond Tree preservation fencing, beyond limits of development, and within 10m of Marina Basin, other than to install/maintain ESC measures</li> </ul>	<ul style="list-style-type: none"> <li>Visual inspection of refueling and maintenance areas and storage on site</li> <li>Visual inspection of tree preservation fencing, marina basin and limits of development to ensure no works beyond ESC works are undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Daily by contractor and project administrator</li> <li>Daily by contractor and project administrator</li> </ul>	<ul style="list-style-type: none"> <li>During tree clearing and grubbing operations</li> </ul>	<ul style="list-style-type: none"> <li>Report including weekly site visit report</li> <li>Map &amp; photos indicating location of encroachments beyond fencing, basin, or limits of development and remedial works completed to prevent further encroachments</li> </ul>	<ul style="list-style-type: none"> <li>Monthly reports to Town and LSRCA</li> <li>Copy of all reports and inspection records to be maintained on site by contractor and Project Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Repair of any encroachments and warnings issued to contractor</li> </ul>

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		<ul style="list-style-type: none"> <li>Tracking of mud to municipal ROW's</li> <li>Dust suppression to minimize disruption to adjacent landowners, and loss of soil or to minimize generation of wood fiber dust from chipping operations</li> </ul>	<ul style="list-style-type: none"> <li>All construction vehicles must enter and exit the site only from the approved, paved access routes.</li> <li>Municipal ROW's will be "street cleaned" as required</li> <li>Water truck to be available to wet the site as required</li> </ul>	<ul style="list-style-type: none"> <li>Contract indicating only access as approved by the Town, visual inspection for monitoring conformity</li> <li>Visual inspection of road conditions to assess need for street cleaning</li> <li>Visual inspection of site conditions will assess need for watering of site</li> </ul>	<ul style="list-style-type: none"> <li>Daily by contractor and Project Administrator</li> <li>Daily by contractor and Project Administrator</li> </ul>		<ul style="list-style-type: none"> <li>Response recommendations and actions undertaken</li> </ul>		<ul style="list-style-type: none"> <li>Street cleaning as required</li> <li>Site wetting as required</li> </ul>

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