

## Vision

**The Quamichan Lake Watershed is valued as an important feature within the Cowichan Valley**

<b>Goal 1 Inspire the people of the Cowichan Valley to truly value the Quamichan Watershed</b>					
<b>Objective 1a</b>		<b>Objective 1b</b>		<b>Objective 1c</b>	
<b>Increase the visibility of the Quamichan Watershed through promoting recreation and educational activities</b>		<b>Increase the awareness of the Quamichan Watershed as a place to experience and support wildlife</b>		<b>Increase public involvement in watershed management to create a culture of “Community Ownership” within the Cowichan Valley</b>	
1a-1	Create a public access strategy for Quamichan Lake	1b-1	Develop a watershed wildlife habitat education program	1c-1	Provide opportunity for public participation in the watershed management
1a-2	Promote the Quamichan Watershed as a historical and cultural landmark	1b-2	Partner with nature groups and schools to deliver wildlife conservation program and events	1c-2	Engage Cowichan Tribes in watershed management to ensure that cultural values are reflected in the objectives and actions
1a-3	Support the Nature Conservancy’s effort to increase access and education to the Gary Oak Preserve	1b-3	Develop wildlife corridor strategy	1c-3	Develop and encourage partnerships with educational institutions for on-going technical studies or work projects
1a-4	Partner with recreation and environmental groups to use and promote the watershed as a venue for recreation, education and wildlife events	<i>DRAFT</i>		1c-4	Create and promote Quamichan Watershed website

<b>Goal 2 Improve the Water Quality of Quamichan Lake and the watershed</b>					
<b>Objective 2a</b>		<b>Objective 2b</b>		<b>Objective 2c</b>	
<b>Reduce the amount of source nutrient (internal load) in Quamichan Lake</b>		<b>Reduce non-source nutrient input from land and water activities in the Quamichan Watershed</b>		<b>Monitor the water quality in Quamichan Lake</b>	
2a-1	Conduct aquatic vegetation assessment and undertake harvesting or promotion program	2b-1	Build settling ponds around stream inlets	2c-1	Conduct spring overturn sampling (phosphorus measurement)
2a-2	Implement food-web manipulation program	2b-2	Promote and educate community on septic field management	2c-2	Take core sediment sample
2a-3	Implement a program of hypolimnetic withdrawal	2b-3	Lead septic conversion to sanitary sewer	2c-3	Establish target Phosphorus level for Quamichan Lake
2a-4	Determine viability of an isolated airlift pump (aeration) close to Quamichan Creek mouth as a form of sediment removal	<i>DRAFT</i>		2c-4	Implement a water monitoring and reporting program
2a-5	Install fine bubble linear aeration at select sites			2c-5	Enable BC Lakes Stewardship Society (BCLSS) to create Lake Report for Quamichan Lake
2a-6	Introduce non-pathogenic soil-bacteria in isolated areas around aeration sites				
2a-7	Undertake lake bottom dredging				

<b>Goal 3</b>				<b>Ensure that the water levels of Quamichan Lake support multiple uses within the watershed</b>			
<b>Objective 3a</b>				<b>Objective 3b</b>			
<b>Develop a hydrology model of the Quamichan Watershed</b>				<b>Ensure adequate spring and fall water flows out of the lake via Quamichan Creek</b>			
3a-1	Conduct an inflow analysis			3b-1	Ensure that a full creek cross-section, for first 310 meters of Quamichan Creek, be free of debris or obstructions in the late winter and early spring		
3a-2	Conduct an outflow analysis			3b-2	Ensure removal and maintenance of free flow channel in upper portions of creek (between creek nick-point and Cowichan River)		
3a-3	Gather temperature and precipitation data			3b-3	Ensure removal of debris and maintenance of free flow channel in McIntyre Creek		
3a-4	Establish land elevation in lowlands (flood plain) and at outlet of Quamichan Creek						
3a-5	Develop a Watershed Hydrological Map and Assessment						

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<b>Goal 4 Champion ecologically sustainable land use practices within the watershed</b>							
<b>Objective 4a</b>		<b>Objective 4b</b>		<b>Objective 4c</b>		<b>Objective 4d</b>	
<b>Watershed definition and assessment is complete and communicated</b>		<b>Ensure that the Quamichan Watershed is integrated into other land and water planning efforts within the Cowichan Valley</b>		<b>Support the implementation of environmental farm practices within the watershed</b>		<b>Support the adoption of ecologically sound landowner activities</b>	
4a-1	Complete the Quamichan Watershed definition and assessment	4b-1	Request that the District of North Cowichan accept the Quamichan Watershed Management Plan as a resource to the Official Community Plan	4c-1	Ministry of Agriculture/ EFP to communicate the importance and relevance of environmental farm activities, particularly as it applies to lake / watershed health	4d-1	Cowichan Land Trust to secure Stewardship Contract with watershed residents
		4b-2	Request that the Cowichan Valley Regional District accept the Quamichan Watershed Management Plan as a resource to the Cowichan Water Basin Management Plan	4c-2	Ministry of Agriculture to implement a soil assessment study for agricultural properties located in the wetland areas	4d-2	Educate landowners on the Riparian Area Regulations (RAR) and riparian management best practices
				4c-3	Ministry of Agriculture to explore alternative land use strategies for wetland agriculture parcels	4d-3	Cowichan Land Trust to develop an acquisition plan and acquire watershed lands for public use
						4d-4	Promote and communicate best practices for storm water management

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<b>Goal 5 Improve habitat in the watershed to support a sustainable fishery and overall biodiversity</b>					
<b>Objective 5a</b>		<b>Objective 5b</b>		<b>Objective 5c</b>	
<b>Protect the riparian habitat within the Quamichan Watershed</b>		<b>Protect native animal and fish species, particularly those that are endangered within the Quamichan Watershed</b>		<b>Conduct a viability assessment of re-introducing an anadromous fish (salmon) habitat to the Quamichan Watershed</b>	
5a-1	Conduct a riparian assessment	5b-1	Conduct native and invasive animal and fish species identification assessment, highlighting those that are endangered	5c-1	The Department of Fisheries and Oceans to assess the viability of spawning and rearing habitats in Quamichan Creek
5a-2	Conduct riparian areas re-vegetation and maintenance	5b-2	Assess the land use impacts on fisheries and wildlife in the Quamichan Watershed	5c-2	The Department of Fisheries and Oceans to assess access/barriers to water flow and fish pathway
		5b-3	Develop a native animal and fish species protection program that includes education and communications material and activities	5c-3	The Department of Fisheries and Oceans to make recommendations on viability of re-introducing an anadromous fish (salmon) habitat to the Quamichan Watershed
		5b-4	Conduct control of invasive species		

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