

Land Use – Marina

Scenario: A marina is located within IPZ-1 of a Great Lake and Connecting Channel intake. The vulnerability assessment on this intake has identified a vulnerability score within IPZ-2 as 8. The marina includes a wide variety of docking facilities for private recreational watercraft. Some of the docking facilities have water and power hook-ups. Parking facilities are provided for private motor vehicles. The marina operates a refuelling station offering regular and diesel fuels as well as selling 2 and 4 stroke motor oil and other supplies for boats. Fuel is stored in 2 above ground fuel tanks. Fuel is available at pumps located on the docks offering refuelling to both floating and trailered boats.

Case Study preparation

A) Identify any of the 21 Activities which are applicable to this site

x	Operation of Waste Disposal Site	x	Sewage treatment facilities
x	Handling and storage of road salt	x	Application of road salt
x	Storage of snow	x	Handling and storage of fuel
	Storage of agricultural source material		Management of agricultural source material
	Application of agricultural source material to land		Handling and storage of non-agricultural material
	Application of non-agricultural source material	x	Handling and storage of organic solvents
	Use of land for livestock grazing or outdoor confinement area or yard		Handling and storage of dense non-aqueous phase liquid (DNAPL's)
x	Handling and storage of fertilizer	x	Application of commercial fertilizer
x	Handling and storage of pesticide	x	Application of pesticide
	Any activity which reduces the recharge of an aquifer		Any activity which takes water from an aquifer or surface water body without returning to the same aquifer or surface water body
	Management of runoff that contains chemicals used in de-icing aircraft		Other Dredging

B) Vulnerability

Location: IPZ-1

Vulnerability Score: 8 (Great Lake Intake)

Case Study 1- Storage of Fuel

The storage of fuels constitutes a moderate risk when stored in an area with a vulnerability score of 8 as identified in the scenario being considered. Risks are between 62 and 69 where the quantity of fuel

stored is 250-2500 L and >2500 L. The storage of lower quantities of fuel are seen as a low risk to the drinking water source (risk score between 43 and 58).

A) Policy Approach – Identify the policy approach(es) that could be applied to this land use/activity

Policy Approach	May be Applied To	
	significant threats	Moderate and Low Threats
Education & Outreach Programs	x	x
Incentive Programs	x	x
Monitoring Activities	x	x
New or Amended Provincial Instruments (only those to be prescribed)	x	
Land Use Planning Approaches (e.g. official plans, zoning by-laws, site plan controls)	x	
Risk Management Plans (s. 58 of CWA)		
Prohibitions (s. 57 of CWA)		
Restricted Land Uses (s. 59 of CWA)		

Others that you might propose :

B) Identify any provincial instruments which may apply to this scenario

Education and outreach, e.g., Blue Marina, Power Squadron. TSSA, Ministry of Labour (Fuel Storage. Spills Action legislation, Federal jurisdiction.

C) Proposed Policy – Draft a policy based on one or more of the approaches identified above to address the risk posed in this scenario.

All marinas operating within PPZ. Use the following policies: Land use planning, Risk Management Plans, Development of Best Management Practices.

D) Consider whether the policy may be applied to storage of fuel at a large refining facility or transportation depot in the same location. For storage of quantities greater than 2500 L of fuel the risk is between 62 and 69.

Additional: Risk Management Policies based on larger storage quantities

Case Study 2 -Handling of fuel

The storage of fuels and handling of fuels are separate sub-categories in the threats table although they are the same prescribed drinking water threat. The risk scores are similar, but not exactly the same. If the marina considered in Case 1 did not have fuel storage associated with the sale of the fuel, the handling of fuel could still be considered a risk. On board and portable fuel containers on some motorized boats would still require the handling of fuel. An example of this would be the transfer of portable fuel containers from motor vehicles to the boats as well as the transfer of fuel from portable containers to the installed containers on personal watercraft or small boats. Where the quantity handled is >2500 L or between 250 and 2500 L the risk is moderate (risk scores are between 62 between 69). For the handling of smaller quantities, the risk is low (between 41 and 57)

E) Policy Approach – Identify the policy approach(es) that could be applied to this land use/activity

Policy Approach	May be Applied To	
	significant threats	Moderate and Low Threats
Education & Outreach Programs		X - signs, procedures
Incentive Programs		X - change to 4 stroke
Monitoring Activities		X - sampling
New or Amended Provincial Instruments (only those to be prescribed)		
Land Use Planning Approaches (e.g. official plans, zoning by-laws, site plan controls)		
Risk Management Plans (s. 58 of CWA)		
Prohibitions (s. 57 of CWA)		
Restricted Land Uses (s. 59 of CWA)		

Others that you might propose :

F) Identify any provincial instruments which may apply to this scenario

TSSA regulations. Spills Action Response

G) Proposed Policy – Draft a policy based on one or more of the approaches identified above to address the risk posed in this scenario.

Include safe handling of fuel as part of operators licensing for boaters. Restriction of types of motors used on water bodies.

H) Consider whether the policy may be applied to handling of fuel at a large refining facility or transportation depot in the same location. The risk scores in this zone are similar for handling quantities greater than 2500 L which are identified as a moderate risk.

Best Management Practices and training otherwise not applicable in larger refining applications.