

**CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS**

**E-3 ENVIRONMENTAL MANAGEMENT**

**March 2012**

**Note: This examination consists of 6 questions on 2 pages.**

**Marks**

**Q. No**

**Time: 3 hours**

**Value   Earned**

1.	<p>During a survey of a property you see an owl perched in a tree in a forested area proposed for clearing and development.</p> <p>a) What do you do or advise your client to do?                      b) Describe the possible implications for the property owner.                      c) Are there federal or provincial acts or regulations pertinent to this situation?</p>	20	
2.	<p>You are surveying near an area in which there is active excavation for a building foundation. You notice a distinct gasoline odour emanating from the work area. It seems to be coming from the soil.</p> <p>a) What do you do or advise your client to do?                      b) Describe all possible implications for the property owner.</p>	20	
3.	<p>Define the following:</p> <p>a) LEED                      b) Confined aquifer                      c) Turbidity                      d) Critical habitat                      e) “polluter pays” principle</p>	10	
4.	<p>A property you are surveying contains a stream with perennial flow. The local government has deemed this to be a sensitive stream and it flows a short distance downstream into known fish habitat. The developer has a road crossing the stream and proposes some residential housing on one side of the stream.</p> <p>Explain how the development could affect the stream and its associated ecosystem. What measures can the developer take to minimize these impacts?</p>	20	

5.	<p>Explain the main objectives and features of these Federal Government environmental acts. How may they affect your work as a land surveyor?</p> <p>a) Fisheries Act</p> <p>b) Species at Risk Act (SARA)</p>	10	
6.	<p>You are providing land surveying services on a proposed ‘run-of-the-river’ hydroelectric project. The project will involve the construction of a small dam, diversion penstock (pipe carrying the diverted water), a turbine/generator plant, a tailrace (where the water is returned to the stream) and associated roads and transmission lines. The project is sufficiently large that the Canadian Environmental Assessment Act is applicable. In general terms, what will this involve? What specific issues do you think will arise in this exercise?</p>	20	
<b>Total Marks:</b>		100	