

# Appendix 4I

## Ecological assessment checklist

### Tier 1 Ecological Assessment Checklist

Receptor (Non-Human) and Exposure Pathway Identification (adapted from Idaho RBCA Guidance, 1996 and ASTM draft RBCA guidance for Chemical Release Sites, 1997) Site Identification

Site Name:	Location
Date:	Assessor:

### Background

Product released:		Approximate date of release:	
Approximate volume of release:		Geology:	
Depth to groundwater:		Distance to nearest surface water:	

### Identification of receptors

1. Are marshes, swamps, tidal flats or other ecologically sensitive wetlands near <sup>1</sup> the site?	Y/N
2. Are other aquatic habitats such as rivers, lakes or streams near the site?	Y/N
3. Are ecologically important marine or estuarine environments near the site?	Y/N
4. Are ecologically important or sensitive environments such as national parks or nature reserves located near the site?	Y/N
5. Are habitats for rare, threatened or endangered species near the site?	Y/N
6. Are culturally important ecological receptors located the site?	Y/N
7. Are commercially or recreationally important ecological receptors near the site?	Y/N
8. Are forested, grassland or other habitats of significance located near the site?	Y/N

If a potentially significant ecological receptor has been identified proceed to the exposure pathway analysis.

<sup>1</sup> "Near" should be judged on a site-specific basis given the likely contaminant's transport by wind, surface run-off or groundwater transport

## Exposure pathway analysis

	Receptors		
	1	2	3
<p><b>1. Could contaminants reach receptor via groundwater?</b></p> <ul style="list-style-type: none"> <li>- Can contaminants leach or dissolve into groundwater?</li> <li>- Are contaminants mobile in groundwater?</li> <li>- Does groundwater discharge into receiving environments such that it can impact on the receptor?</li> </ul>	Y/N	Y/N	Y/N
<p><b>2. Could contaminants reach the receptor via the migration of separate phase hydrocarbons?</b></p> <ul style="list-style-type: none"> <li>- Are separate phase hydrocarbons present at the site?</li> <li>- Is the separate phase migrating toward the receptor?</li> <li>- Could discharge of separate phase hydrocarbons to a receiving environment occur such that an impact on the receptor may occur?</li> </ul>	Y/N	Y/N	Y/N
<p><b>3. Could contaminants reach the receptors via runoff?</b></p> <ul style="list-style-type: none"> <li>- Are the contaminants present in the surface soil?</li> <li>- Is the surface soil exposed?</li> <li>- Can the contaminants be leached from or eroded with the surface soils?</li> <li>- Is the receptor downhill from the source?</li> </ul>	Y/N	Y/N	Y/N
<p><b>4. Could the receptors come in direct contact with contaminated soil at the site?</b></p> <ul style="list-style-type: none"> <li>- Is the receptor located within a contaminated area?</li> <li>- Is the contamination present at the surface or otherwise located so that receptors may come in contact with it?</li> </ul>	Y/N	Y/N	Y/N
<p><b>5. Are there visible indications of stressed receptors or habitats for ecologically significant receptors at or near the site?</b></p>	Y/N	Y/N	Y/N

If a potentially complete exposure pathway is identified for an ecologically significant receptor, **proceed with more detailed, site-specific assessment (Tier 2).**

**Receptor/habitat description**

Receptor /habitat	Description
1	
2	
3	

**Observed impacts on ecological receptors or habitats associated with the site**

Receptor	Assessment of Impact		
	None	Limited	Significant
On-site vegetation			
Off-site vegetation			
On-site animal life (eg. invertebrates, birds, fish)			
Off-site animal life (eg. invertebrates, birds, fish)			
Other impacts			