

Land contamination and impacts on the water environment consultation

Appendix 1: Assessment Criteria

Degree of Impact Being Assessment	Part IIA classification	Receptor	Spatial Assessment Rules	Assessment Concentration	Assessment Statistic	
Input of hazardous substances to groundwater	Part IIA significant pollution	Groundwater less than 400 m depth below ground level and which is located inland of the mean high water springs tidal limit and groundwater below 400m below ground level or below mean high water springs if there is a pathway for contaminants to reach surface ecosystems.	Assessed at the base of unsaturated zone ¹ (more than 50 m from surface water body) ³	Hazardous substance input value (>50m) ²	Annual average	
		Surface waters via a groundwater pathway	Assessed at the base of unsaturated zone (within 50 m of surface water body) ³	Hazardous substance input value (<50m) ³	Annual average	
Groundwater pollution		Future groundwater resource	Standard exceeded over 1 hectare ³	Threshold value ³	Annual average	
		Current abstractions	Assessed in abstraction prior to treatment	Use-based standard ⁴	Maximum	
		Groundwater dependent wetlands	Assessed in the wetland	Wetland standard or other SEPA agreed standard	Annual average	
		Surface waters	Assessed in surface water following mixing	Environmental quality standard or other SEPA agreed standard ⁵	Annual average	
Surface water pollution		All surface waters	Assessed in surface water outwith the mixing zone	Environmental quality standard or other SEPA agreed standard ⁸		
Less than good status or results in an increased level of treatment for an existing drinking water supply		Part IIA "Special Site"	Future groundwater resource	Hazardous substances exceed standard over 20 hectares ⁶ Non-hazardous substances exceed standard when averaged across groundwater body	Threshold value ³	Annual average
			Current abstractions for human consumption in drinking water protected areas.	Assessed in abstraction prior to treatment	Drinking Water Standard plus upward trend in concentrations ⁷	Maximum
			Surface water bodies subject to classification	Assessed in surface water following mixing taking into account spatial and temporal rules ⁸	Environmental quality standard or other SEPA agreed standard ⁹	Annual average
	Groundwater dependent wetlands designated as Natura 2000 or SSSI sites		Assessed in the wetland	Wetland standard or other SEPA agreed standard	Annual average	

Table 2: Assessment Criteria

¹ Dilution in groundwater must not be taken into account. Sources below the water table should be assessed at the point of entry to groundwater.

² See WAT-PS-10-02 Assigning Groundwater Assessment Criteria for Pollutant Inputs

³ In scenarios where surface recharge is not the dominant control on the groundwater flow regime (e.g. groundwater at >30m depth in hard rock terranes), an alternative site-specific assessment area capable of supporting a flow of 10m³/d may be proposed for consideration by SEPA.

⁴ If abstracted water is used for multiple uses, then the most stringent use-based standard will apply.

⁵ See WAT-SG-53 Environmental Standards for Surface Waters

⁶ In scenarios where surface recharge is not the dominant control on the groundwater flow regime (e.g. groundwater at >30m depth in hard rock terranes), an alternative site-specific assessment area capable of supporting a flow of 200m³/d may be proposed for consideration by SEPA.

⁷ As per UKTAG Paper 11b(i).

⁸ As set out in Schedule 4 of The Scotland River Basin District (Standards) Directions 2014. See also Annex A3.3.4.

⁹ See Standards Directions for spatial and temporal standards. Note that, although there are also intermittent standards for BOD, DO and ammonia, impacts from land contamination are unlikely to be intermittent or be predicted to be intermittent with any confidence

