



ARCUS

**TECHNICAL APPENDIX 5.1
ECOLOGICAL SUPPORTING INFORMATION**

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PHASE 1 HABITAT SURVEY TARGET NOTES

See also Figure 5.1

Target Note	Observation
1	<p>Small Reservoir / Attenuation basin</p> <p>Square-shaped excavation acting as water storage basin or attenuation lagoon. The basin was steep-sided and approx. 40 m x 30 m with a small area of standing water in the base. The standing water was shallow and turbid and approx. 8m x 6m. No aquatic vegetation was present and dead stalks of perennial species indicated that it was dry most of the time. The banks were steep-sided on the north, west and south banks with short ephemeral vegetation present with local patches of species-poor semi-improved grassland and bare ground.</p>
2	<p>Dense scrub on slopes surrounding concrete compound</p> <p>At the top of the bank on the south side of the ESA, there was a line of Leylandii cypress Cupressus × leylandii trees, 6-8m high with one young sycamore Acer pseudoplatanus tree.</p>
3	<p>Small copse of crack willow Salix fragilis and grey willow Salix cinerea trees associated with small pond located within an area of species-poor semi-improved grassland near the south of the ESA.</p>
4	<p>Species-poor semi-improved grassland in area close to south boundary of ESA and surrounding the pond at TN3.</p>
5	<p>Dry reservoir/pond. Former water-body with dry bed and being colonised by grassland with scattered ruderal plants. Not accessible for direct survey. To the west there was an area of bare ground present with a similar excavated basin, presumably providing a flood attenuation function.</p>
6	<p>Species-poor semi-improved grassland located along south edge of landfill site – outside ESA. Rabbits were present in most areas of this grassland with warrens located in several locations. Along the south boundary of the landfill there was a butyl lined ditch which contained water in several sections, and with exposed liner along most of the banks.</p>
7	<p>Intact species-poor hedge with trees along eastern boundary of landfill site.</p>
8	<p>Ephemeral/short perennial patches. The majority of the ESA comprised bare ground or recently colonised ground with sparse cover of vegetation. Interspersed within this were small areas of ephemeral/short perennial vegetation often with characteristics of species-poor semi-improved grassland developing.</p>

PLANT SPECIES LIST

Common name	Scientific name
Alexanders	<i>Smyrniolus olusatrum</i>
Ash	<i>Fraxinus excelsior</i>
Beta sp.	<i>Beta sp.</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus</i> agg.
Bristly oxtongue	<i>Picris echioides</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Common bent	<i>Agrostis capillaris</i>
Common mouse-ear	<i>Cerastium fontanum</i>
Common ragwort	<i>Jacobaea vulgaris</i>
Common reed	<i>Phragmites australis</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Crack willow	<i>Salix fragilis</i>
Creeping bent	<i>Agrostis stolonifera</i>
Creeping thistle	<i>Cirsium arvense</i>
Dandelion	<i>Taraxacum officinalis</i> agg.
Dog rose	<i>Rosa canina</i>
English elm	<i>Ulmus procera</i>
Field maple	<i>Acer campestre</i>
Grey willow	<i>Salix cinerea</i>
Groundsel	<i>Senecio vulgaris</i>
Hard rush	<i>Juncus inflexus</i>
Hawthorn	<i>Crataegus monogyna</i>
Leylandii cypress	<i>Cupressus × leylandii</i>
Pedunculate oak	<i>Quercus robur</i>
Perennial rye-grass	<i>Lolium perenne</i>
Prickly sow-thistle	<i>Sonchus asper</i>
Ragwort	<i>Senecio jacobaea</i>
Red dead-nettle	<i>Lamium purpureum</i>
Red fescue	<i>Festuca rubra</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Scot's pine	<i>Pinus sylvestris</i>
Self-heal	<i>Prunella vulgaris</i>
Sycamore	<i>Acer pseudoplatanus</i>
Teasel	<i>Dipsacus fullonum</i>
Weld	<i>Reseda lutea</i>
Yorkshire fog	<i>Holcus lanatus</i>

PHOTOGRAPHS



Photograph 1: Small attenuation basin (TN1)



Photograph 2: Dense scrub surrounding the compound (TN2)



Photograph 3: Pond surrounded by small copse of willow within the species-poor semi-improved grassland in the south of the ESA (TN3)



Photograph 4: Species-poor semi-improved grassland field in the south of the ESA.



Photograph 5: Dry reservoir/pond outside the ESA, directly to the south (TN5)



Photograph 6: Species-poor semi-improved grassland located off-site along south edge of the ESA (TN6)



Photograph 7: Butyl-lined ditch with shallow water in some sections along the southern boundary (TN6)



Photograph 8: Bare ground interspersed with patches of ephemeral/short-perennial across most of the ESA (TN8)

HABITAT SUITABILITY INDEX (HSI) RESULTS

Pond P16/TN3, Figure 5.2

HSI Parameter	HSI Score
Location	1
Pond Area	0.1
Pond Drying	0.5
Water Quality	0.33
Shade	1
Fowl	0.67
Fish	1
Ponds	0.89
Terrestrial	0.33
Macrophytes	0.4
Total HSI Score	0.51