

creating a better place

Our ref: EA/PPC/MP3530GC

Your ref:

Date: 26 September 2008



**Environment
Agency**

IPPC Public Register
Pollution Control Division,
Walsall Metropolitan Borough Council,
Civic Centre, Darwaol Street,
Walsall,
WS1 1TP

Dear Sir/Madam,

**THE POLLUTION PREVENTION AND CONTROL (ENGLAND AND WALES)
REGULATIONS 2000 (SI 2000 No 1973), as amended, (the PPC Regulations);**

Application reference: EA/PPC/MP3530GC

Applicant: Envirosol Ltd

Installation: Envirosol Environmental Management Facility Brownhills
EA/EPR/MP3530GC/A001

1. Enclosed is a photocopy of the document(s) the Environment Agency has made available to the public, details having been placed on the Environment Agency **Public Register** held at:-
**Environment Agency, Sentinel House, 9 Wellington Crescent,
Fradley Park, Lichfield, Staffs. WS13 8RR**
2. The documents have been copied to you under the provisions of the above Act for your information and so that you can place them on your own public register and contain no matters of confidentiality.
3. Further guidance and details of the provisions relating to these registers are given in the above Regulations.
4. If you have any query about the details enclosed or, about the actual information held by the Environment Agency or, more generally, the public access to information aspects, please do not hesitate to contact at the address below.

Yours faithfully



Mr Andrew Ruck

Technical Administrator

Direct dial: 0115 9828365

Enc.

Appendix 11, Crow 4



APPENDIX 11

Form HR01: Proforma for new applications within Stage 2 criteria.



**ENVIRONMENT
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Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)

The new application for an Environmental Permit detailed below is within the Stage 1 criteria of within 10km Cannock Chase SAC and Cannock Extension Canal SAC, and in order to progress the application a Stage 2 assessment and consultation with Natural England/CCW is required.

PART A

To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and Natural England/CCW

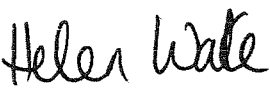
1.	Type of permission/activity:	EPR installation
2.	Agency reference no:	EA/EPR/MP3530GC/A001
3.	National Grid reference:	SK0350005200
4.	Site reference:	Envirosol Environmental Management Facility Brownhills Collier Close Coppice Side Industrial Estate Brownhills West Midlands WS8 7EU
5.	Brief description of proposal:	New Hazardous Waste Treatment Centre - Site comprises part of a large industrial premises formerly occupied by a foundry with a separate small part of the building occupied by a manufacturer of biodiesel from waste vegetable oils. The facility acts as a collection point for a wide range of wastes. Wastes are then bulked up for disposal or recycling. Bulking may be by physical transfer of the contents from several containers in to one larger one or by the accumulation of a number of full containers to make an economical load for disposal. Wastes are then sent to appropriate disposal or recycling points. Solvent wastes are dealt with in a separate dedicated room where air emissions are extracted via abatement equipment to air. All activities take place within a building. There are no process releases to controlled waters or sewer.
6.	European site name(s) and status:	Cannock Chase SAC Cannock Extension Canal SAC
7.	List of interest features:	Cannock Chase 1.1 Fens & wet habitats (not sensitive to acidification) (Northern Atlantic wet heaths with Erica tetralix 1.8 Dry heathland habitats (Dry heaths (all subtypes)) Cannock Extension Canal 2.1 Vascular plants of aquatic habitats (Floating Water Plantain)
8.	Is the proposal directly connected with or necessary to the management of the site for nature conservation?	No
9.	What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?	

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:

1.1 Fens & wet habitats (not sensitive to acidification) (Northern Atlantic wet heaths with Erica tetralix)	Acidification	Not applicable. Emissions into air will not impact on the European sites
	Change in salinity regime	None. There are no releases to controlled waters.
	Changes in thermal regime	None. There are no releases to controlled waters
	Habitat Loss	None (Emissions into air will not impact on the European sites, site is 9.4km)
	Nutrient Enrichment	Not applicable. Emissions into air will not impact on the European sites
	Physical Damage	Not applicable. No activity proposed in European site.
	Siltation	Not applicable. No releases to controlled waters
	Smothering	Not applicable. Emissions into air will not impact on the European sites
	Toxic contamination	Not applicable. Emissions into air will not impact on the European sites
	Turbidity	None. There are no releases to controlled waters.
1.8 Dry heathland habitats (Dry heaths (all subtypes))	Acidification	Not applicable. Emissions into air will not impact on the European sites
	Habitat Loss	None (no releases, Emissions into air will not impact on the European sites, site is 9.4km)
	Nutrient Enrichment	Not applicable. Emissions into air will not impact on the European sites
	Physical Damage	Not applicable. No activity proposed in European site.
	Smothering	Not applicable. Emissions into air will not impact on the European sites
	Toxic contamination	Not applicable. Emissions into air will not impact on the European sites
2.1 Vascular plants of aquatic habitats (Floating Water Plantain)	Acidification	Not applicable. Emissions into air will not impact on the European sites
	Change in salinity regime	None. There are no releases to controlled waters.
	Changes in thermal regime	None. There are no releases to controlled waters
	Habitat Loss	None. There are no releases to controlled waters
	Nutrient Enrichment	None. There are no releases to controlled waters
	Physical Damage	Not applicable. Emissions into air will not impact on the European sites

	Siltation	None. There are no releases to controlled waters.
	Toxic contamination	None. There are no releases to controlled waters. Emissions into air will not impact on the European sites.
	Turbidity	None. There are no releases to controlled waters.

10. Is the potential scale or magnitude of any effect likely to be significant?		
a) Alone? (explain conclusion, e.g. in relation to de minimis criteria)	No – The only point Source emissions to air - VOC's from the bulking of solvent wastes. Emissions are extracted to abatement equipment. H1 assesses VOC emissions to air from the activities as insignificant being <1% of the long term EAL and <10% of the short term EAL. The Operator is to use techniques that are BAT to control fugitive releases, operations taking place within a building. Hence the conclusion above that there is only a low potential for the facility to cause smothering, nutrient enrichment or toxic contamination.	
b) In combination with other Environment Agency permissions and/or other plans or projects? (Explain conclusion and which plans/projects have been included, including those associated with other functions).	No	
c) In combination with permissions and/or plans/projects of other Competent Authorities? (Explain conclusion and which plans/projects have been included. See Appendix 23 for further information). Include list of other Competent Authorities that have been consulted and what their comments were in relation to the decision on likely significant effect.	As a result of its risk assessment, the Agency can conclude that: This application could not act in combination with permissions and/or plans/projects of other competent authorities, consultation has not been necessary for this issue. However, Walsall MBC is statutory consultee and was consulted but made no response regarding local plans/projects.	
11. Conclusion: Is the proposal likely to have a significant effect 'alone or in combination' on a European site? (Justification – attach any relevant supporting information and the reasons for coming to the particular conclusion)	No - AQ emissions are less than 10% of the EAL, therefore no impact.	
12. Justification for Reduced Consultation review process : A brief justification should be written outlining why each application is thought to be minor or large/complex, and thus why you are sending to Natural England for either information or consultation.	N/A	
13. Name of EA Officer:	Fiona Devine	Date: 8/08/08

14. Natural England/CCW comment on assessment: (If the NE/CCW officer disagrees with the conclusion of 10c, please include details of the other Competent Authorities which should be consulted).	For use when the Appendix 11 is to be sent to Natural England /CCW for consultation. Agree with conclusion based on the fact that only VOCs at very low levels (less than 1% of EAL) will be released and there will be no other emissions.	
15. Name of NE/CCW Officer:		Date: 24 th September 2008
IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).		

Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT:

(see also NE and CCW Habitats Regulations Guidance Notes HRGN1 and OH 99/01)

(Water Resources, please see note in Appendix 4 of the guidance for assessing new permissions)

(add details to following framework)

- Other competent authorities involved (the scope of the appropriate assessment must be agreed with them).
- Characterise the site in relation to the qualifying features and their conservation objectives;
 - Existing information
 - Additional surveys
 - Management/ unauthorised impacts
- Detailed description of plan/project
- Assess each likely impact on the interest features;
 - Compare with historical data
 - predict impacts
 - compare with impact from management/unauthorised activities
- Determine the extent to which each possible impact can be avoided.

15. NE/CCW Comment on scope of appropriate assessment:

Mainly for use when the Appendix 11 is sent to Natural England /CCW for consultation. Natural England/CCW may still choose to send comments on the scope of the forthcoming appropriate assessment (if one is required) even if the Appendix 11 was sent for information only. See [Appendix 11 Work Instruction 276_05](#).

16. Name of NE/CCW Officer:		Date:
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Pollutant	Long-term EAL $\mu\text{g}/\text{m}^3$	Short Term EAL	Long term PC $\mu\text{g}/\text{m}^3$	% PC of EAL	PC/EAL <1%	Short-term EAL $\mu\text{g}/\text{m}^3$	% of short-term benchmark	PC/EAL <10%
VOC (toluene)	1910	8000	8.23	0.431	yes	217	2.71	Yes

The CROW Act 2000 and Environment Agency Permissions - Formal Notice



ENVIRONMENT
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Environment Agency Formal Notice To English Nature/Countryside Council For Wales

Requirements of section 28I of the Wildlife & Countryside Act 1981 as incorporated by the Countryside and Rights of Way Act (CROW) 2000.

Duty in relation to granting any consent, licence or permit for activities to be carried out in or capable of affecting Sites of Special Scientific Interest (SSSI).

To be completed by relevant technical/project officer in consultation with Conservation section, referring to the Agency Guidance and the flow chart in CROW Appendix 2 titled, 'The CROW Act 2000 and Environment Agency Permissions'.

NB: [1] It is expected that there has been preliminary Consultation with EN/CCW, where the application timetable permits.

[2] Complete this form for any proposed permissions which the Agency is minded to approve, having taken account of the Agency's S28G duties. This applies to all proposed permissions within an SSSI which relate to operations listed on the OLD list, and to permissions outside an SSSI which are likely to damage its special features.

1. Agency Region and Area Office:	Midlands Upper Trent	
2. Name of SSSI(s):	Clayhanger, Cannock Extension Canal, Jockey Fields, Chasewater Heaths	
3. Type of permission:	IPPC Application	
4. Date for Agency determination:	27 th September 2008	
5. Predicted 28 day date for EN/CCW Response (under S28 I(4)):	5 th September 2008	
6. Agency Reference no:	EA/EPR/MP3530GC/AOO1	
7. National Grid reference:	SK03500520	
8. Description of proposal:	<p>New hazardous waste transfer station - Site comprises part of a large industrial premises formerly occupied by a foundry with a separate small part of the building occupied by a manufacturer of biodiesel from waste vegetable oils. The facility acts as a collection point for a wide range of wastes. Waste type include cyanides, sulphides, ammonia, pesticides, herbicides, caustics, alkali metals, strong reducers, asbestos etc. Wastes are then bulked up for disposal or recycling. Bulking may be by physical transfer of the contents from several containers in to one larger one or by the accumulation of a number of full containers to make an economical load for disposal. Wastes are then sent to appropriate disposal or recycling points. Solvent wastes are dealt with in a separate dedicated room where air emissions are extracted via abatement equipment to air. All activities take place within a building. There are no process releases to controlled waters or sewer.</p>	
9. Is the proposed activity within (wholly or partially) the SSSI boundary?	No	
10. If within the SSSI and on the OLD list, and/or outside the SSSI boundary, what aspect of the proposed permission is likely in the Agency view to adversely affect the notified interest of the SSSI?	<p>N/A</p> <p>No - The only point source are emissions to air - VOC's (volatile organic compounds) from the bulking of solvent wastes. Emissions are extracted to abatement equipment. H1 assesses VOC emissions to air from the activities as insignificant being <1% of the long term EAL and <10% of the short term EAL. The Operator is to use techniques that are BAT to control fugitive releases, operations taking place within a building. Hence the conclusion above.</p>	
11. Name & job title of Agency Officer:	Fiona Devine Snr Permitting officer	12. Date form sent to EN/CCW: 8/8/08

Comment [F1]: Added 24/9/08 to provide clarity

For Agency use only, once EN/CCW response received		
13. EN/CCW comment on assessment:	Please circle one of following: Agree with conclusion based on the fact that only VOCs at very low levels (less than 1% of EAL) will be released and there will be no other emissions.	
14. Name & job title of EN/CCW Officer:	15. Date of receipt of EN/CCW response:	
Helen Wake, Freshwater and pollution specialist, west midlands region.	Helen Wake	24 th September 2008

COUNTY: WEST MIDLANDS SITE NAME: CLAYHANGER

DISTRICT: Walsall SITE REF: 15WP4

Status: Site of Special Scientific Interest (SSSI) notified (Under Section 28 of the Wildlife and Countryside Act) 1981 as amended

Local Planning Authority: Walsall Metropolitan Borough Council

National Grid Reference: SK 034045 Area: 23.8 (ha.) 58.8 (ac.)

Ordnance Survey Sheet 1:50,000: 139 1:10,000: SK 00 SW

Date Notified (Under 1949 Act): – Date of Last Revision: –

Date Notified (Under 1981 Act): 1986 Date of Last Revision: –

Other Information:

New site.

Description and Reasons for Notification:

Clayhanger SSSI lies to the north of Walsall on gravelly glacial boulder clays which overlie the Middle Coal Measures Carboniferous. The site includes a wide range of wetland habitats from open water through swamp and fen communities to species-rich marshy grassland which adjoin areas of neutral and acidic grassland. Habitat diversity, well developed stands of emergent vegetation, and species restricted in their national distribution combine to make Clayhanger one of the best wetland sites in the county.

The site shows considerable variation in the areas of open water and associated emergent vegetation which is dominated by greater reed-mace *Typha latifolia* and reed sweet-grass *Glyceria maxima*. In some pools there are good stands of common club-rush *Schoenoplectus lacustris* or sea club-rush *Scirpus maritimus*, a coastal species which is rare inland. This emergent vegetation grades into fen communities which include mare's-tail *Hippuris vulgaris*, tubular water-dropwort *Oenanthe fistulosa* and pink water-speedwell *Veronica catenata*. Marshy grassland areas which are very local in the county, are dominated by rushes *Juncus articulatus*, *J. bufonius*, *J. conglomeratus* and *J. effusus* with sedges *Carex nigra* and *C. ovalis* becoming locally abundant. This community is species-rich with marsh ragwort *Senecio aquaticus*, gipsywort *Lycopus europaeus*, water forget-me-not *Myosotis scorpioides*, skullcap *Scutellaria galericulata*, celery-leaved buttercup *Ranunculus sceleratus*, and trifid bur-marigold *Bidens tripartita*. Adjacent neutral grassland has areas where meadow thistle *Cirsium dissectum* is abundant; this species is restricted nationally to the south and east and is uncommon in the Midlands.

Early marsh-orchid *Dactylorhiza incarnata* and common spotted-orchid *D. fuchsii* are present together with their hybrids. Spoil heaps have developed an acidic grassland vegetation which includes harebell *Campanula rotundifolia*, eyebright *Euphrasia officinalis* and mat-grass *Nardus stricta*, an uncommon species in the county.

WEST MIDLANDS EXTENSION CANAL

DISTRICT: Cannock Chase Walsall SITE REF: 15W2L

Status: Site of Special Scientific Interest (SSSI) notified (Under Section 28 of the Wildlife

and Countryside Act) 1981 as amended.

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, Cannock Chase District Council, Walsall Metropolitan Borough Council

National Grid Reference: SK 019044, SK 020069 Area: 5.47 (ha.) 13.5 (ac.)

Ordnance Survey Sheet 1:50,000: 139 1:10,000: SK 00 NW, SK 00 SW

Date Notified (Under 1949 Act): – Date of Last Revision: –

Date Notified (Under 1981 Act): 25 March 1993 Date of Last Revision: –

Other Information:

New site.

Description and Reasons for Notification:

The Cannock Extension is a terminal side branch of the Wyrley and Essington Canal extending northwards for 2.5 km towards Norton Canes. It is part of the extensive inland waterway system running throughout Birmingham and the Black Country. The high water quality, uneven canal bottom and the low volume of boat traffic have allowed a diverse aquatic flora to develop without any extensive reedswamp incursion.

A total of thirty four aquatic plants have been recorded from the canal, making it the richest known waterway of its type in Staffordshire and the West Midlands, and placing it high within the national canal network series.

Of major importance is a large population of the nationally scarce floating water-plantain *Luronium natans*, the best known colony in both Staffordshire and the West Midlands.

This plant, recognised as endangered in Europe, is found throughout the length of the Cannock Extension. Good populations also exist of flowering-rush *Butomus umbellatus*, arrowhead *Sagittaria sagittifolia*, shining pondweed *Potamogeton lucens*, perfoliate pondweed *P. perfoliatus* and spiked water-milfoil *Myriophyllum spicatum*, all of which are rare or uncommon in Staffordshire. Other uncommon species present include curled pondweed *P. crispus* and narrow-leaved water-plantain *Alisma lanceolatum*.

The eastern canal bank is brick-edged with several species including hemlock waterdropwort *Oenanthe crocata*, skullcap *Scutellaria galericulata*, fairy flax *Linum catharticum* and water dock *Rumex hydrolapathum*, growing out of the brickwork. The towpath itself supports such species as common spotted-orchid *Dactylorhiza fuchsii* and greater bird's-foot-trefoil *Lotus uliginosus*. The western bank is much more natural with reed sweet-grass *Glyceria maxima* and branched bur-reed *Sparganium erectum* forming extensive marginal stands. Yellow iris *Iris pseudacorus* and yellow loosestrife *Lysimachia vulgaris* add to the diversity of this community.

At least nine species of dragonfly have been recorded in association with the canal, including the red-eyed damselfly *Erythromma najas* and emperor dragonfly *Anax imperator*, the latter species being at the northern edge of its range in Britain.

NOTIFICATION DATE: 30 MARCH 1994

COUNTY: WEST MIDLANDS SITE NAME: JOCKEY FIELDS

DISTRICT: WALSALL SITE REF: 15W4L

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981, as amended

Local Planning Authority: WALSALL METROPOLITAN BOROUGH COUNCIL

National Grid Reference: SK 041030 Area: 18.05 (ha.)

Ordnance Survey Sheet 1:50,000: 139 1:10,000: SK 00 SW

Date Notified (Under 1949 Act): ♂ Date of Last Revision: ♂

Date Notified (Under 1981 Act): 30 March 1994 Date of Last Revision: ♂

Other Information:

New site.

Description and Reasons for Notification

Jockey Fields lie to the north of Walsall on Etruria Marls (Carboniferous) overlain in part by more recent alluvial deposits. The site consists of a number of low-lying fields in a stream valley. Variations in wetness and management have produced a range of vegetation types including well-grazed damp pasture, neglected grassland,

fen and mire. Running through the site are a network of well-vegetated ditches which add to the interest of the area. It is also of local interest for its wetland birds. The variety of habitats found at Jockey Fields, together with the large size of the site, the presence of a number of plant species rare in the West Midlands and the bird interest make it very important in the County.

In the south of the site, a large area of tall fen and swamp is dominated by lesser pond-sedge *Carex acutiformis* and greater reedmace *Typha latifolia*. Other species present include meadowsweet *Filipendula ulmaria*, greater bird's-foot-trefoil *Lotus uliginosus*, yellow iris *Iris pseudacorus* and marsh thistle *Cirsium palustre*.

This area is ungrazed and subject to variable, but generally high, water levels which flood the adjoining grassland to a greater or lesser extent throughout the year.

Further north are areas of grassland, fen and mire managed by grazing. The grasslands are dominated by Yorkshire-fog *Holcus lanatus* and soft-rush *Juncus effusus* together with species such as cuckooflower *Cardamine pratensis*, water mint *Mentha aquatica*, bog stitchwort *Stellaria alsine*, common marsh-bedstraw *Galium palustre*, marsh horsetail *Equisetum palustre*, lesser spearwort *Ranunculus flammula* and devil's-bit scabious *Succisa pratensis*.

The fen vegetation is very varied in character and forms a mosaic in which different plant communities merge. Generally it is co-dominated by lesser pond-sedge and bottle sedge *Carex rostrata*, the latter being a species rare in the county.

Other common species include cuckooflower, marsh thistle *Cirsium palustre*, marsh willowherb *Epilobium palustre*, hoary willowherb *E. parviflorum*, and fool's water-cress *Apium nodiflorum*.

The northern fields support a mire community and contain soft-rush and sharpflowered

rush *Juncus acutiflorus* as co-dominants together with common marshbedstraw *Galium palustre*, marsh-marigold *Caltha palustris*, ragged-Robin *Lychnis flos-cuculi*, southern marsh-orchid *Dactylorhiza praetermissa*, lesser spearwort *Ranunculus flammula* and marsh ragwort *Senecio aquaticus*. Marsh cinquefoil *Potentilla palustris* and marsh speedwell *Veronica scutellata* are also present and are considered scarce in the county. Other notable species present on the site include brown sedge *Carex disticha*, wood horsetail *Equisetum sylvaticum*, marsh arrowgrass *Triglochin palustre* and pink water-speedwell *V. catenata*.

The ditches support species such as brooklime *Veronica beccabunga*, watercress *Nasturtium officinale*, water-plantain *Alisma plantago-aquatica*, common waterstarwort

Callitriche stagnalis and fat duckweed *Lemna gibba*.

The site is important for a variety of birds species. Locally significant numbers of grey heron *Ardea cinerea* use the site as a feeding ground. Numbers of snipe *Gallinago gallinago* in excess of 80 have been recorded and jack snipe *Lymnocyptes minimus*, teal *Anas crecca*, water rail *Rallus aquaticus*, coot *Fulica atra*, moorhen *Gallinula chloropus* and reed bunting *Emberiza schoeniclus* are also present.

COUNTY: WEST MIDLANDS/STAFFORDSHIRE SITE NAME:

CHASEWATER HEATHS

DISTRICT: Walsall/Lichfield SITE REF: 15WZ4

Status: Site of Special Scientific Interest (SSSI) notified (Under Section 28 of the Wildlife and Countryside Act) 1981 as amended

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, Walsall Metropolitan Borough Council/Lichfield, District Council

National Grid Reference: SK 039080 Area: 48.4 (ha.) 119.6 (ac.)

Ordnance Survey Sheet 1:50,000: 128, 139 1:10,000 SK 00 NW

Date Notified (Under 1949 Act): – Date of Last Revision: –

Date Notified (Under 1981 Act): 1987 Date of Last Revision: –

Other Information:

New site.

Description and Reasons for Notification:

Adjacent to Chasewater reservoir, Chasewater Heaths SSSI comprises remnants of original heathland together with recently colonized soils disturbed by mining activity. It lies on unstratified, gravelly, boulder clay overlying Carboniferous Middle Coal Measures. The site is of special interest for the wet and dry heathland communities and associated valley mires, all of which are uncommon in lowland Britain, and here form an ecological link between the important heathlands of Cannock Chase SSSI (Staffordshire) and Sutton Park SSSI (West Midlands County).

The dry heathland is dominated by heather *Calluna vulgaris* and wavy hair-grass *Deschampsia flexuosa*, with bell heather *Erica cinerea*, bilberry *Vaccinium myrtillus* and cowberry *V. vitis-idaea*. Wetter areas support wet heathland communities dominated by purple moor-grass *Molinia caerulea*, cross-leaved heath *Erica tetralix* and heather, with lesser amounts of crowberry *Empetrum nigrum*, cranberry *Vaccinium oxycoccos*, cottongrass *Eriophorum angustifolium* and *E. vaginatum* and deergrass *Trichophorum cespitosum*. Small but floristically rich basin and valley mires contain bog mosses *Sphagnum* spp. and wet heathland species as well as bogbean *Menyanthes trifoliata*, roundleaved

sundew *Drosera rotundifolia* and common spotted and marsh orchids *Dactylorhiza fuchsii* and *D. praetermissa* and their hybrid *D. x grandis*. Areas of acidic marshy grassland adjacent to the heathland communities contain rushes *Juncus* spp. in association with locally uncommon species such as marsh violet *Viola palustris*, marsh cinquefoil *Potentilla palustris*, marsh arrowgrass *Triglochin palustris* and marsh pennywort *Hydrocotyle vulgaris*.

There is a well defined transition from heathland into emergent and inundation communities along the shore of the reservoir with stands of water horsetail *Equisetum fluviatile* and common spike-rush *Eleocharis palustris* together with more unusual species such as smallfruited

yellow sedge *Carex serotina*, bog pimpernel *Anagallis tenella* and shoreweed *Littorella uniflora*. Fen and swamp areas have developed on richer, deeper, soils, particularly below the dam. The outflow from the reservoir becomes the Anglesey branch of the Wyrley and Essington canal which contains a rich aquatic flora including a locally rare stonewort *Chara aspera* var. *aspera*, as well as freshwater crayfish *Austropotamodius pallipes*.

The site provides a range of habitats for breeding birds. Of particular note are snipe *Gallinago gallinago*, grasshopper warbler *Locustella naevia*, and water rail *Rallus aquaticus*.

