

APPENDIX 10.7

TABLES OF PLANT SPECIES LISTS FOR THE ST. HELENS CANAL
AND THE MANCHESTER SHIP CANAL BANK LOCAL WILDLIFE SITES

TABLE 1 THE PLANT SPECIES COMPOSITION OF THE VEGETATION OF THE NORTH BANK OF THE WESTERN SECTION OF THE DISUSED ST. HELENS CANAL LOCAL WILDLIFE SITE, WIDNES.

Site map: North-west and north-east **Survey date:** 19/09/02
Grid squares: 515845, 520845, 525845
Total vegetation cover = Willow carr and trees = 60%, Marginal swamp vegetation = 10%,
Grassland = 20%, Aquatic vegetation = 1%

Scientific name	Common name	Abundance	Cover
Woody species			
<i>Alnus cordata</i>	Italian Alder	LF	2%
<i>Alnus glutinosa</i>	Alder	LF	10%
<i>Betula pendula</i>	Silver Birch	LF	1%
<i>Crataegus monogyna</i>	Hawthorn	VLF	1%
<i>Exotic species</i>	-	VL	<1%
<i>Malus domestica</i>	Apple	R	<1%
<i>Populus alba</i>	White Poplar	LF	1%
<i>Populus candicans</i>	Balm-of-Gilead	VLF	<1%
<i>Prunus spinosa</i>	Blackthorn	VL	<1%
<i>Quercus robur</i>	Pedunculate Oak	LF	<1%
<i>Rosa sp.</i>	Rose species	LF	5%
<i>Salix caprea</i>	Goat Willow	LF*	5%
<i>Salix fragilis</i>	Crack Willow	LF	5%
<i>Salix viminalis</i>	Common Osier	VA*	30%
<i>Sambucus nigra</i>	Elder	VLF	<1%
<i>Sorbus aucuparia</i>	Rowan	LF	<1%
<i>Sorbus intermedia</i>	Swedish Whitebeam	VL	<1%
Aquatic species			
<i>Iris pseudacorus</i>	Yellow Iris	VLA	<1%
<i>Lemna minor</i>	Common Duckweed	VLF*	<1%
<i>Sparganium erectum</i>	Branched Bur-reed	VLA	1%
Monocotyledon species			
<i>Agrostis capillaris</i>	Common Bent	VL	<1%
<i>Agrostis stolonifera</i>	Creeping Bent	LA*	5%
<i>Alopecurus pratensis</i>	Meadow Foxtail	VL	<1%
<i>Arrhenatherum elatius</i>	False Oat-grass	LA	5%
<i>Dactylis glomerata</i>	Cocksfoot	LA	5%
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	VLA	<1%
<i>Elytrigia repens</i>	Common Couch-grass	VL	<1%
<i>Festuca rubra</i>	Creeping Fescue	VLA	3%
<i>Holcus lanatus</i>	Yorkshire Fog	LA	3%
<i>Juncus inflexus</i>	Hard Rush	R	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VLF	<1%
<i>Phalaris arundinacea</i>	Reed Canary-grass	VLA*	5%
<i>Phragmites australis</i>	Common Reed	VLA	<1%

Continued

TABLE 1 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Poa annua</i>	Annual Meadow-grass	VLA	2%
<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	VLF	1%
<i>Poa trivialis</i>	Rough-stalked Meadow-grass	VLF	1%
<i>Vulpia bromoides</i>	Squirreltail Fescue	VLA	<1%
Dicotyledon species			
<i>Achillea millefolium</i>	Yarrow	VLF	<1%
<i>Aegopodium podagraria</i>	Ground Elder	VL	<1%
<i>Angelica sylvestris</i>	Angelica	VL	<1%
<i>Anthriscus sylvestris</i>	Cow Parsley	VL	<1%
<i>Apium nodiflorum</i>	Fool's Water-cress	VL	<1%
<i>Artemisia vulgaris</i>	Mugwort	VLF	<1%
<i>Aster novi-belgii</i>	Michaelmas Daisy	VLF	<1%
<i>Bellis perennis</i>	Daisy	VL	<1%
<i>Blackstonia perfoliata</i>	Yellow-wort	R	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	VL	<1%
<i>Cardamine flexuosa</i>	Wavy Bittercress	VL	<1%
<i>Centaureum erythraea</i>	Common Centaury	VLF	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	VL	<1%
<i>Chaenorhinum minus</i>	Small Toadflax	VLF	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VLF	<1%
<i>Cirsium arvense</i>	Creeping Thistle	LF	1%
<i>Dryopteris filix-mas</i>	Male Fern	VL	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	LA/VLD*	25%
<i>Equisetum arvense</i>	Field Horsetail	R	<1%
<i>Eupatorium cannabinum</i>	Hemp-agrimony	VLA	<1%
<i>Galium aparine</i>	Cleavers	VL	<1%
<i>Galium palustre</i>	Common Marsh-Bedstraw	VL	<1%
<i>Geranium molle</i>	Dove's Foot Crane's-bill	VLF	<1%
<i>Geranium robertianum</i>	Herb Robert	R	<1%
<i>Heracleum sphondylium</i>	Hogweed	LF	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	O	<1%
<i>Lonicera periclymenum</i>	Honeysuckle	VLF	<1%
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	VLF	<1%
<i>Lycopus europaeus</i>	Gipsywort	VL	<1%
<i>Melilotus officinalis</i>	Ribbed Melilot	VLF	<1%
<i>Oenanthe crocata</i>	Hemlock Water Dropwort	LA	2%
<i>Pilosella officinarum</i>	Mouse-ear Hawkweed	VL	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	VLA	<1%
<i>Plantago major</i>	Greater Plantain	VLA	1%
<i>Polygonum aviculare</i>	Knotgrass	VL	<1%
<i>Persicaria maculosa</i>	Redshank	VL	<1%
<i>Polypodium vulgare</i>	Common Polypody	R	<1%
<i>Potentilla reptans</i>	Creeping Cinquefoil	VLF	<1%
<i>Pteridium aquilinum</i>	Bracken	VLF	1%
<i>Ranunculus repens</i>	Creeping Buttercup	VL	<1%
<i>Rubus fruticosus</i>	Bramble	LA*	20%
<i>Rumex conglomeratus</i>	Clustered Dock	VL	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	VL	<1%
<i>Senecio jacobaea</i>	Common Ragwort	LF	<1%
<i>Senecio vulgaris</i>	Groundsel	VL	<1%

Continued

TABLE 1 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Solanum dulcamara</i>	Bittersweet	VLA	<1%
<i>Sonchus arvensis</i>	Perennial Sow-thistle	VL	<1%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	VL	<1%
<i>Stachys palustris</i>	Marsh Woundwort	VL	<1%
<i>Stachys sylvatica</i>	Hedge Woundwort	VL	<1%
<i>Stellaria media</i>	Common Chickweed	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%
<i>Torilis japonica</i>	Hedge Parsley	VLF	<1%
<i>Trifolium dubium</i>	Lesser Trefoil	VLF	<1%
<i>Trifolium pratense</i>	Red Clover	LA	2%
<i>Trifolium repens</i>	White Clover	VL	<1%
<i>Tussilago farfara</i>	Coltsfoot	LF	<1%
<i>Urtica dioica</i>	Common Nettle	VA/VLD*	25%
<i>Vicia cracca</i>	Tufted Vetch	VL	<1%
<i>Vicia hirsuta</i>	Hairy Tare	VLF	<1%

Key to abbreviations: **D** = Dominant, **COD** = Co-dominant, **A** = Abundant, **F** = Frequent, **O** = Occasional, **L** = Local/Locally, **R** = Rare, **V** = Very, * = Constant species.

TABLE 2 THE PLANT SPECIES COMPOSITION OF THE VEGETATION IF THE SOUTH BANK OF THE WESTERN SECTION OF THE ST. HELENS CANAL, WIDNES.

Site map: North-west and north-east

Survey date: 19/09/02

Grid square: 515845, 520845, 525845

Total vegetation cover = Marginal swamp vegetation = 95%, Aquatic vegetation = 5%

Scientific name	Common name	Abundance	Cover
Woody species			
<i>Buddleja davidii</i> .	Butterfly-bush	VL	<1%
<i>Salix cinera</i>	Sallow saplings	VL	<1%
<i>Salix caprea</i>	Goat Willow sapling	VL	<1%
Aquatic species			
Green Algae		VLF	<1%
<i>Lemna minor</i>	Common Duckweed	O*	<1%
<i>Persicaria amphibia</i>	Amphibious Bistort	VLA	<1%
<i>Ranunculus</i> sp..	Water Crow-foot species	VL	<1%
<i>Sparganium erectum</i>	Branched Bur-reed	VLA	1%
Herb species			
<i>Agrostis capillaris</i>	Common Bent	VLF	<1%
<i>Agrostis stolonifera</i>	Creeping Bent	VLA*	3%
<i>Angelica sylvestris</i>	Angelica	VLF	<1%
<i>Apium nodiflorum</i>	Fool's Water-cress	VLA	1%
<i>Arrhenatherum elatius</i>	False Oat-grass	VL	<1%
<i>Artemisia vulgaris</i>	Mugwort	VLF	5%
<i>Calystegia sepium</i>	Hedge Bindweed	VL	<1%
<i>Cardamine flexuosa</i>	Wavy Bittercress	VL	<1%
<i>Cardamine pratensis</i>	Cuckoo-flower	O	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	VLF	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VL	<1%
<i>Cirsium arvense</i>	Creeping Thistle	LF	1%
<i>Cirsium vulgare</i>	Spear Thistle	VL	<1%
<i>Conyza canadensis</i>	Canadian Fleabane	VL	<1%
<i>Cynosurus cristatus</i>	Crested Dogstail	VLF	<1%
<i>Dactylis glomerata</i>	Cocksfoot	VLA	2%
<i>Elytrigia repens</i>	Common Couch-grass	VL	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	VLA*	10%
<i>Epilobium palustre</i>	Marsh Willowherb	VL	<1%
<i>Festuca rubra</i>	Creeping Fescue	LF	<1%
<i>Galium palustre</i>	Common Marsh- Bedstraw	VLF	<1%
<i>Geranium molle</i>	Dove's Foot Crane's-bill	VL	<1%
<i>Geranium robertianum</i>	Herb Robert	VL	<1%
<i>Heracleum sphondylium</i>	Hogweed	VLF	<1%
<i>Holcus lanatus</i>	Yorkshire Fog	VLA	3%
<i>Hypochaeris radicata</i>	Common Cat's-ear	O	<1%
<i>Iris pseudacorus</i>	Yellow Iris	VLF	2%

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TABLE 2 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Leontodon autumnalis</i>	Autumnal Hawkbit	O	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VLF	1%
<i>Lycopus eurpaeus</i>	Gipsywort	VA*	5%
<i>Matricaria discoidea</i>	Pineappleweed	VL	<1%
<i>Medicago lupulina</i>	Black Medick	VLF	<1%
<i>Mentha aquatica</i>	Water Mint	VL	<1%
Mosses		VLA	<1%
<i>Oenanthe crocata</i>	Hemlock Water Dropwort	LF	5%
<i>Phalaris arundinacea</i>	Reed Canary-grass	VA*	40%
<i>Phragmites australis</i>	Common Reed	VLA	5%
<i>Plantago lanceolata</i>	Ribwort Plantain	LF/VLA*	5%
<i>Plantago major</i>	Greater Plantain	VLF	3%
<i>Poa annua</i>	Annual Meadow-grass	VLA*	3%
<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	VL	<1%
<i>Poa trivialis</i>	Rough-stalked Meadow-Grass	VL	<1%
<i>Polygonum aviculare</i>	Knotgrass	VLF	<1%
<i>Persicaria maculosa</i>	Redshank	VLA	1%
<i>Pteridium aquilinum</i>	Bracken	VLF	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	VLF	2%
<i>Rubus fruticosus</i>	Bramble	VLF	2%
<i>Rumex acetosella</i>	Sheep's Sorrel	VL	<1%
<i>Rumex conglomeratus</i>	Clustered Dock	O	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	VL	<1%
<i>Sagina procumbens</i>	Procumbent Pearlwort	VL	<1%
<i>Scutellaria galericulata</i>	Skullcap	R	<1%
<i>Senecio jacobaea</i>	Common Ragwort	LF	<1%
<i>Sisymbrium officinale</i>	Hedge Mustard	VL	<1%
<i>Solanum dulcamara</i>	Bittersweet	VLA*	5%
<i>Spergularia marina</i>	Lesser Sea-spurrey	R	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%
<i>Trifolium dubium</i>	Lesser Trefoil	VL	<1%
<i>Trifolium medium</i>	Zig-zag Clover	VLF	<1%
<i>Trifolium pratense</i>	Red Clover	VL	1%
<i>Trifolium repens</i>	White Clover	VL	<1%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	VLF	<1%
<i>Tussilago farfara</i>	Coltsfoot	VL	<1%
<i>Urtica dioica</i>	Common Nettle	VLA	2%
<i>Vicia sativa</i>	Common Vetch	VLF	<1%
<i>Vicia sepium</i>	Bush Vetch	VLF	<1%

Key to abbreviations: D = Dominant, COD=Co-dominant, A = Abundant, F = Frequent, O = Occasional, L = Local/locally, R = Rare, V = Very, * = Constant species.

TABLE 3 THE PLANT SPECIES COMPOSITION OF THE VEGETATION OF THE SOUTH BANK OF THE MIDDLE SECTION OF THE ST. HELENS CANAL LOCAL WILDLIFE SITE, WIDNES.

Site map: North-east

Survey date: 19/09/02

Grid squares: 525850, 530850, 535850

Total vegetation cover = Marginal swamp vegetation 98%, Aquatic vegetation = 2%

Scientific name	Common name	Abundance	Cover
Woody species			
<i>Rosa</i> sp.	Rose species	VL	<1%
Aquatic species			
	Green algae	VLF	1%
<i>Iris pseudacorus</i>	Yellow Iris	VLF	<1%
<i>Lemna minor</i>	Common Duckweed	VLF	1%
<i>Sparganium erectum</i>	Branched Bur-reed	VLA	<1%
Monocotyledon species			
<i>Agrostis capillaris</i>	Common Bent	VL	<1%
<i>Agrostis stolonifera</i>	Creeping Bent	VLA	5%
<i>Arrhenatherum elatius</i>	False Oat-grass	VLA	3%
<i>Cynosurus cristatus</i>	Crested Dogstail	VLF	1%
<i>Dactylis glomerata</i>	Cocksfoot	VLA	3%
<i>Elytrigia repens</i>	Common Couch-grass	VLF	<1%
<i>Festuca rubra</i>	Creeping Fescue	VLF	<1%
<i>Holcus lanatus</i>	Yorkshire Fog	VLA	3%
<i>Juncus inflexus</i>	Hard Rush	VL	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VLF	1%
<i>Phalaris arundinacea</i>	Reed Canary-grass	VA/LD*	40%
<i>Phleum pratense</i>	Timothy	VLF	1%
<i>Phragmites australis</i>	Common Reed	LA	15%
<i>Poa annua</i>	Annual Meadow-grass	LA	2%
Dicotyledon species			
<i>Angelica sylvestris</i>	Angelica	VLF	<1%
<i>Anthriscus sylvestris</i>	Cow Parsley	VL	<1%
<i>Apium nodiflorum</i>	Fool's Water-cress	VLF	1%
<i>Arctium minus</i>	Lesser Burdock	R	<1%
<i>Artemisia vulgaris</i>	Mugwort	VLF	<1%
<i>Bidens tripartita</i>	Trifid Bur-marigold	VL	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	VLF	<1%
<i>Cardamine pratensis</i>	Cuckoo-flower	VL	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	VLF	<1%
<i>Cirsium arvense</i>	Creeping Thistle	VL	<1%
<i>Cirsium vulgare</i>	Spear Thistle	VL	<1%
<i>Convolvulus arvensis</i>	Field Bindweed	VL	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	LA	10%
<i>Equisetum arvense</i>	Field Horsetail	VLF	<1%
<i>Galium palustre</i>	Common Marsh-bedstraw	VLA	<1%
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	R	<1%
<i>Geranium molle</i>	Dove's-foot Crane's-bill	VL	<1%

Continued

TABLE 3 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Heracleum sphondylium</i>	Hogweed	O	<1%
<i>Lamium album</i>	White Dead-nettle	R	<1%
<i>Lamium purpureum</i>	Red Dead-nettle	VL	<1%
<i>Lycopus europaeus</i>	Gipsywort	LA	5%
<i>Matricaria discoidea</i>	Pineappleweed	VL	<1%
<i>Mentha aquatica</i>	Water Mint	VL	<1%
<i>Oenanthe crocata</i>	Hemlock Water Dropwort	VL	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	LF	2%
<i>Plantago major</i>	Greater Plantain	LF	1%
<i>Polygonum persicaria</i>	Knotgrass	VL	<1%
<i>Prunella vulgaris</i>	Self-heal	VL	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	VLF	<1%
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	VLF	<1%
<i>Rubus fruticosus</i> agg.	Bramble	LA	5%
<i>Rumex conglomeratus</i>	Clustered Dock	VLF	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	VLF	<1%
<i>Sagina procumbens</i>	Procumbent Pearlwort	VL	<1%
<i>Senecio jacobaea</i>	Common Ragwort	O	<1%
<i>Sisymbrium officinale</i>	Hedge Mustard	VL	<1%
<i>Solanum dulcamara</i>	Bittersweet	VLA	3%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	VL	<1%
<i>Stachys palustre</i>	Marsh Woundwort	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%
<i>Trifolium repens</i>	White Clover	LA	2%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	VL	<1%
<i>Urtica dioica</i>	Common Nettle	VLA	8%

Key to abbreviations: D = Dominant, COD = Co-dominant, A = Abundant, F = Frequent, O = Occasional, L = Local/locally, R = Rare, V = Very, * = Constant species.

TABLE 4 THE PLANT SPECIES COMPOSITION OF THE VEGETATION OF THE NORTH BANK OF THE MIDDLE SECTION OF THE ST. HELENS CANAL LOCAL WILDLIFE SITE, WIDNES.

Site map: North-east

Survey date: 19/09/02

Grid squares: 525850, 530850, 535850

Total vegetation cover = Woody species = 1%, Marginal swamp vegetation = 96%, Aquatic vegetation = 3%

Scientific name	Common name	Abundance	Cover
Woody species			
<i>Alnus glutinosa</i>	Alder	VL	<1%
<i>Betula pendula</i>	Silver Birch	VL	<1%
<i>Salix caprea</i>	Goat Willow	VL	<1%
<i>Salix fragilis</i>	Crack Willow	VLF	<1%
<i>Sambucus nigra</i>	Elder	VL	<1%
Aquatic species			
<i>Lemna minor</i>	Common Duckweed	VLF	1%
<i>Nuphar lutea</i>	Yellow Water-lily	VLF	1%
<i>Sparganium erectum</i>	Branched Bur-reed	VLF	1%
Monocotyledon species			
<i>Agrostis capillaris</i>	Common Bent	LF	<1%
<i>Agrostis stolonifera</i>	Creeping Bent	LF	1%
<i>Arrhenatherum elatius</i>	False Oat-grass	LA	1%
<i>Dactylis glomerata</i>	Cocksfoot	LA	2%
<i>Holcus lanatus</i>	Yorkshire Fog	VLF	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VLF	<1%
<i>Phragmites australis</i>	Common Reed	VA/LD*	90%
<i>Poa annua</i>	Annual Meadow-grass	VLF	<1%
Dicotyledon species			
<i>Artemisia vulgaris</i>	Mugwort	VLF	1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VL	<1%
<i>Cirsium arvense</i>	Creeping Thistle	VLF	<1%
<i>Cirsium vulgare</i>	Spear Thistle	VL	<1%
<i>Heracleum sphondylium</i>	Hogweed	VL	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	VL	<1%
<i>Leontodon autumnalis</i>	Autumnal Hawkbit	VL	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	VL	<1%
<i>Plantago major</i>	Greater Plantain	VL	<1%
<i>Pteridium aquilinum</i>	Bracken	VLA	2%
<i>Ranunculus repens</i>	Creeping Buttercup	VLF	<1%
<i>Reseda luteola</i>	Weld	R	<1%
<i>Rubus fruticosus</i>	Bramble	VLA	1%
<i>Rumex conglomeratus</i>	Clustered Dock	VL	<1%
<i>Senecio jacobaea</i>	Common Ragwort	VL	<1%
<i>Solanum dulcamara</i>	Bittersweet	VLF	1%
<i>Sonchus arvensis</i>	Perennial Sow-thistle	VL	<1%
<i>Stellaria media</i>	Common Chickweed	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%

Continued

TABLE 4 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Trifolium repens</i>	White Clover	VLF	<1%
<i>Urtica dioica</i>	Common Nettle	VLF	<1%

Key to abbreviations: **D** = Dominant, **COD** = Co-dominant, **A** = Abundant, **F** = Frequent, **O** = Occasional, **L** = Local/locally, **R** = Rare, **V** = Very, * = Constant species.

TABLE 5 THE PLANT SPECIES COMPOSITION OF THE VEGETATION OF THE SOUTH BANK OF THE EASTERN SECTION OF THE ST. HELENS CANAL LOCAL WILDLIFE SITE, WIDNES.

Site map: North-east

Survey date: 20/09/02

Grid squares: 540855, 545855, 550855, 555860

Total vegetation cover = Marginal swamp vegetation 95%, Aquatic vegetation 5%

Scientific name	Common name	Abundance	Cover
Woody species			
<i>Alnus sp.</i>	Italian Alder	R	<1%
<i>Salix cinerea</i>	Common Sallow	VL	<1%
<i>Salix caprea</i>	Goat Willow	VL	<1%
<i>Sambucus nigra</i>	Elder	VL	<1%
Aquatic species			
<i>Iris pseudacorus</i>	Yellow Iris	VLF	<1%
<i>Lemna minor</i>	Common Duckweed	VLD	1%
<i>Phragmites australis</i>	Common Reed	VA/LD*	60%
<i>Sparganium erectum</i>	Branched Bur-reed	LF	2%
Monocotyledon species			
<i>Agrostis capillaris</i>	Common Bent	LA	8%
<i>Agrostis stolonifera</i>	Creeping Bent	LA*	5%
<i>Alopecurus pratensis</i>	Meadow Foxtail	VLF	<1%
<i>Arrhenatherum elatius</i>	False Oat-grass	LA	5%
<i>Carex otrubae</i>	False Fox Sedge	VL	<1%
<i>Cynosurus cristatus</i>	Crested Dogtail	VLF	1%
<i>Dactylis glomerata</i>	Cocksfoot	LA*	5%
<i>Elytrigia repens</i>	Common Couch-grass	VLF	<1%
<i>Festuca rubra</i>	Creeping Fescue	LA*	5%
<i>Holcus lanatus</i>	Yorkshire Fog	LA	5%
<i>Juncus inflexus</i>	Hard Rush	VLF	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VLA	3%
<i>Phalaris arundinacea</i>	Reed Canary-grass	LA	5%
<i>Phleum pratense</i>	Timothy	VLA	1%
<i>Poa annua</i>	Annual Meadow-grass	LA*	3%
<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	LF	2%
<i>Poa trivialis</i>	Rough-stalked Meadow-grass	LF	5%
Dicotyledon species			
<i>Achillea millefolium</i>	Yarrow	VLF	<1%
<i>Angelica sylvestris</i>	Angelica	VLF	<1%
<i>Artemisia vulgaris</i>	Mugwort	VLF	<1%
<i>Bellis perennis</i>	Daisy	VLF	<1%
<i>Capsella bursa-pastoris</i>	Shepherd's Purse	VL	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	O	<1%
<i>Cirsium arvense</i>	Creeping Thistle	LF	1%
<i>Cirsium vulgare</i>	Spear Thistle	VLF	<1%
<i>Dryopteris filix-mas</i>	Male Fern	VL	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	VLA	3%

Continued

TABLE 5 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Equisetum arvensis</i>	Field Horsetail	VL	<1%
<i>Eupatorium cannabinum</i>	Hemp-agrimony	VLF	<1%
<i>Geranium molle</i>	Dove's-foot Crane's-bill	VL	<1%
<i>Heracleum sphondylium</i>	Hogweed	VLF	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	O	<1%
<i>Impatiens glandulifera</i>	Himalayan Balsam	R	<1%
<i>Lamium album</i>	White Dead-nettle	VL	<1%
<i>Lathyrus pratensis</i>	Meadow Vetchling	VLF	<1%
<i>Linaria vulgaris</i>	Common Toadflax	VL	<1%
<i>Lycopus europaeus</i>	Gipsywort	VLA	<1%
<i>Medicago lupulina</i>	Black Medick	VL	<1%
<i>Melilotus officinalis</i>	Ribbed Melilot	VL	<1%
<i>Mentha aquatica</i>	Water Mint	VLF	<1%
<i>Odontites vernus</i>	Red Bartsia	VL	<1%
<i>Oenanthe crocata</i>	Hemlock Water Dropwort	VL	<1%
<i>Persicaria amphibian</i>	Amphibious Bistort	VLF	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	LF	2%
<i>Plantago major</i>	Greater Plantain	VLF	1%
<i>Persicaria hydropiper</i>	Water-pepper	O	<1%
<i>Persicaria maculosa</i>	Redshank	VLF	1%
<i>Potentilla anserine</i>	Silverweed	VLF	<1%
<i>Pteridium aquilinum</i>	Bracken	VL	<1%
<i>Pulicaria dysenterica</i>	Common Fleabane	VLF	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	LF	3%
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	VLF	<1%
<i>Rubus fruticosus</i>	Bramble	LA	2%
<i>Rumex conglomeratus</i>	Clustered Dock	VLF	<1%
<i>Sonchus arvensis</i>	Perennial Sow-thistle	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%
<i>Torilis nodosa</i>	Knotted Hedge-parsley	VLF	<1%
<i>Trifolium dubium</i>	Lesser Trefoil	VLF	<1%
<i>Trifolium medium</i>	Zig-zag Clover	VLF	<1%
<i>Trifolium pratense</i>	Red Clover	LF	2%
<i>Trifolium repens</i>	White Clover	LF	3%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	VL	<1%
<i>Tussilago farfara</i>	Coltsfoot	VL	<1%
<i>Urtica dioica</i>	Common Nettle	LF/VLA	5%
<i>Vicia cracca</i>	Tufted Vetch	VLF	<1%
<i>Vicia hirsuta</i>	Hairy Tare	VLF	<1%
<i>Vicia sativa</i>	Common Vetch	VLF	<1%
<i>Vicia sepium</i>	Bush Vetch	VLF	<1%

Key to abbreviations: **D** = Dominant, **COD** = Co-dominant, **A** = Abundant, **F** = Frequent, **O** = Occasional, **L** = Local/locally, **R** = Rare, **V** = Very, * = Constant species

TABLE 6 THE PLANT SPECIES COMPOSITION OF THE VEGETATION OF THE NORTH BANK OF THE EASTERN SECTION OF THE ST. HELENS CANAL LOCAL WILDLIFE SITE, WIDNES.

Site map: North-east

Survey date: 20/09/02

Grid squares: 540855, 545855, 550855, 550860, 555860

Total vegetation cover: Marginal swamp vegetation 80%, Aquatic vegetation 5%

Scientific name	Common name	Abundance	Cover
Woody species			
<i>Acer pseudoplatanus</i>	Sycamore	VL	<1%
<i>Crataegus monogyna</i>	Hawthorn	VL	<1%
<i>Malus</i> sp.	Apple tree	R	<1%
<i>Quercus robur</i>	Pedunculate Oak	VLF	1%
<i>Salix caprea</i>	Goat Willow	VLF	<1%
<i>Sambucus nigra</i>	Elder	VL	<1%
Aquatic species			
<i>Phragmites australis</i>	Common Reed	VA*	65%
Monocotyledon species			
<i>Arrhenatherum elatius</i>	False Oat-grass	LA	5%
<i>Dactylis glomerata</i>	Cocksfoot	VLA	2%
<i>Festuca rubra</i>	Creeping Fescue	VLF	2%
<i>Holcus lanatus</i>	Yorkshire Fog	LF	2%
<i>Juncus inflexus</i>	Hard Rush	VL	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VLF	<1%
<i>Phalaris arundinacea</i>	Reed Canary-grass	VLA	3%
<i>Poa annua</i>	Annual Meadow-grass	VLF	<1%
Dicotyledon species			
<i>Achillea millefolium</i>	Yarrow	VL	<1%
<i>Artemisia vulgaris</i>	Mugwort	VL	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	VLA*	<1%
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	VL	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	LF	3%
<i>Cirsium arvense</i>	Creeping Thistle	VLF	2%
<i>Cirsium vulgare</i>	Spear Thistle	VL	<1%
<i>Dryopteris filix-mas</i>	Male Fern	VL	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	LA	10%
<i>Epilobium palustre</i>	Marsh Willowherb	VL	<1%
<i>Equisetum arvensis</i>	Field Horsetail	VL	<1%
<i>Eupatorium cannabinum</i>	Hemp-agrimony	VLF	<1%
<i>Galium aparine</i>	Cleavers	VL	<1%
<i>Galium palustre</i>	Marsh Bedstraw	VL	<1%
<i>Geranium robertianum</i>	Herb Robert	VL	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	VLF	<1%
<i>Odontites vernus</i>	Red Bartsia	VL	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	VLF	1%
<i>Persicaria maculosa</i>	Redshank	VL	<1%
<i>Pteridium aquilinum</i>	Bracken	VLA	1%
<i>Pulicaria dysenterica</i>	Common Fleabane	VL	<1%

Continued

TABLE 6 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Ranunculus repens</i>	Creeping Buttercup	VLF	<1%
<i>Rubus fruticosus</i>	Bramble	VLA	5%
<i>Senecio jacobaea</i>	Common Ragwort	LA/VLF	3%
<i>Solanum dulcamara</i>	Bittersweet	LF	<1%
<i>Sonchus asper</i>	Prickly Sow-thistle	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%
<i>Trifolium dubium</i>	Lesser Trefoil	VLF	<1%
<i>Trifolium pratense</i>	Red Clover	VLF	<1%
<i>Trifolium repens</i>	White Clover	VLF	<1%
<i>Tussilago farfara</i>	Coltsfoot	VL	<1%
<i>Urtica dioica</i>	Common Nettle	LF	5%
<i>Veronica filiformis</i>	Slender Speedwell	VL	<1%

Key to abbreviations: **D** = Dominant, **COD** = Co-dominant, **A** = Abundant, **F** = Frequent, **O** = Occasional, **L** = Local/locally, **R** = Rare, **V** = Very, * = Constant species.

TABLE 7 THE PLANT SPECIES COMPOSITION OF THE MANCHESTER SHIP CANAL BANK LOCAL WILDLIFE SITE AT ASTMOOR

Map: South-east
Grid square: 540835

Survey date: 27/05/02

Scientific name	Common name	Abundance	Cover
Species adjacent to Manchester Ship Canal			
<i>Arrhenatherum elatius</i>	False Oat-grass	VL	5%
<i>Cirsium arvense</i>	Creeping Thistle	O	<1%
<i>Oenanthe crocata</i>	Hemlock Water Dropwort	VLA	2%
<i>Plantago lanceolata</i>	Ribwort Plantain	VF	10%
<i>Poa annua</i>	Annual Meadow-grass	VL	2%
<i>Smyrniolum olusatrum</i>	Alexanders	VL	2%
<i>Rubus fruticosus</i>	Bramble	VLA	5%
Grassland strip species			
Woody species			
<i>Crataegus monogyna</i>	Hawthorn	VL	<1%
<i>Acer pseudoplatanus</i>	Sycamore saplings	VL	<1%
<i>Salix caprea</i>	Goat Willow	VL	<1%
<i>Rosa canina</i>	Dog Rose	R	<1%
Monocotyledon species			
<i>Arrhenatherum elatius</i>	False Oat-grass	VF*	20%
<i>Carex nigra</i>	Common Sedge	LVF	3%
<i>Dactylis glomerata</i>	Cocksfoot	LF	5%
<i>Dactylorhiza fuchsia</i>	Common Spotted Orchid	VL	1%
<i>Dactylorhiza praetermissa</i>	Southern Marsh Orchid	LA	2%
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	VL	2%
<i>Festuca arundinacea</i>	Tall Fescue	VL	1%
<i>Festuca rubra</i>	Creeping Fescue	VA*	15%
<i>Holcus lanatus</i>	Yorkshire Fog	VLA	4%
<i>Luzula campestris</i>	Field Wood-rush	VL	2%
<i>Ophrys apifera</i>	Bee Orchid	VL	<1%
Dicotyledon species			
<i>Aegopodium podagraria</i>	Ground Elder	VL	<1%
<i>Angelica sylvestris</i>	Angelica	VL	<1%
<i>Bellis perennis</i>	Daisy	VL	<1%
<i>Blackstonia perfoliata</i>	Yellow-wort	VL	<1%
<i>Cardamine pratensis</i>	Cuckoo-flower	VL	<1%
<i>Centaurea nigra</i>	Common Knapweed	VLF	2%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VLA	5%
<i>Cirsium arvense</i>	Creeping Thistle	VLA	5%
<i>Equisetum arvense</i>	Field Horsetail	LF	1%
<i>Filipendula ulmaria</i>	Meadowsweet	VL	<1%
<i>Heracleum sphondylium</i>	Hogweed	VL	<1%
<i>Hieracium sp.</i>	Hawkweed species	VL	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	VL	1%

<i>Lathyrus pratensis</i>	Meadow Vetchling	VLA	<1%
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Continued

TABLE 7 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	VLF	2%
<i>Melilotus lupulina</i>	Ribbed Melilot	VL	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	VL	2%
<i>Ranunculus acris</i>	Meadow Buttercup	LF	1%
<i>Rubus fruticosus</i>	Bramble	VLA	5%
<i>Rumex crispus</i>	Curled Dock	VL	2%
<i>Senecio jacobaea</i>	Ragwort	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	VL	<1%
<i>Tragopogon pratensis</i>	Goat's-beard	VL	<1%
<i>Trifolium medium</i>	Zig-zag Clover	VL	<1%
<i>Trifolium pratense</i>	Red Clover	LF	2%
<i>Tussilago farfara</i>	Coltsfoot	VLF	2%
<i>Vicia cracca</i>	Tufted Vetch	VLF	1%
<i>Vicia hirsuta</i>	Hairy Tare	VLA	2%
<i>Vicia sativa</i>	Common Vetch	VLA	4%

Scrub strip further up the canal bank

Woody species

<i>Acer campestre</i>	Field Maple	VL	<1%
<i>Acer pseudoplatanus</i>	Sycamore	VA/LD*	20%
<i>Aesculus hippocastanum</i>	Horse Chestnut	R	<1%
<i>Alnus glutinosa</i>	Alder	VF/LA	5%
<i>Alnus cordata</i>	Italian Alder	LF/LA	5%
<i>Betula pendula</i>	Silver Birch	VL	<1%
<i>Crataegus monogyna</i>	Hawthorn	LA	10%
<i>Cytisus scoparius</i>	Broom	VL	<1%
<i>Quercus robur</i>	Pendunculate Oak	VL	2%
<i>Rosa canina</i>	Dog Rose	O	<1%
<i>Sambucus nigra</i>	Elder	VL	<1%
<i>Salix cinerea</i>	Common Sallow	VL	2%
<i>Sorbus aucuparia</i>	Rowan	VL	<1%
<i>Ulex europaeus</i>	Gorse	VL	<1%
<i>Viburnum opulus</i>	Guelder Rose	R	<1%

Monocotyledon herbs

<i>Agrostis capillaris</i>	Common Bent	VL	2%
<i>Agrostis stolonifera</i>	Creeping Bent	VL	1%
<i>Arrhenatherum elatius</i>	False Oat-grass	VA*	10%
<i>Cynosurus cristatus</i>	Crested Dogstail	F*	2%
<i>Dactylis glomerata</i>	Cocksfoot	LF	2%
<i>Dactylorhiza fuchsii</i>	Common Spotted Orchid	O	<1%
<i>Dactylorhiza praetermissa</i>	Southern Marsh Orchid	VLA	<1%
<i>Festuca ovina</i>	Sheep's Fescue	VL	1%
<i>Festuca rubra</i>	Creeping Fescue	LF	5%
<i>Holcus lanatus</i>	Yorkshire Fog	LF	3%
<i>Holcus moliis</i>	Creeping Soft-grass	VL	1%
<i>Juncus inflexus</i>	Hard Rush	VL	<1%
<i>Lolium perenne</i>	Perennial Ryegrass	VL	<1%
<i>Poa annua</i>	Annual Meadow-grass	LF	2%

<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	LF	2%
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Continued

TABLE 7 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Poa trivialis</i>	Rough-stalked Meadow-grass	LF	2%
<i>Phalaris arundinacea</i>	Reed Canary-grass	VL	<1%
<i>Vulpia bromoides</i>	Squirreltail Fescue	VL	<1%
Dicotyledon herbs			
<i>Achillea millefolium</i>	Yarrow	VL	<1%
<i>Aegopodium podagraria</i>	Ground Elder	VL	<1%
<i>Anthriscus sylvestris</i>	Cow Parsley	VLA	2%
<i>Bellis perennis</i>	Daisy	VLF	<1%
<i>Blackstonia perfoliata</i>	Yellow-wort	VL	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	VLF	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	LF	<1%
<i>Centaurea nigra</i>	Common Knapweed	VLF	<1%
<i>Centaurea scabiosa</i>	Greater Knapweed	VLF	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	VLA	3%
<i>Cirsium arvense</i>	Creeping Thistle	VF	1%
<i>Dryopteris affinis</i>	Scaly Male Fern	VLF	<1%
<i>Epilobium hirsutum</i>	Great Willowherb	VL	1%
<i>Epilobium palustre</i>	Marsh Willowherb	VLF	<1%
<i>Epilobium montanum</i>	Broad-leaved Willowherb	LF	<1%
<i>Equisetum arvense</i>	Field Horsetail	LF	<1%
<i>Galium aparine</i>	Cleavers	VLA	5%
<i>Heracleum sphondylium</i>	Hogweed	VLF	3%
<i>Hypochaeris radicata</i>	Common Cat's-ear	LF	<1%
<i>Lathyrus pratensis</i>	Meadow Vetchling	VLA/LF	2%
<i>Leontodon hispidus</i>	Rough Hawkbit	VL	<1%
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	LF	2%
<i>Plantago lanceolata</i>	Ribwort Plantain	VLF	1%
<i>Potentilla reptans</i>	Creeping Cinquefoil	R	<1%
<i>Pulicaria dysenterica</i>	Common Fleabane	VLA	<1%
<i>Ranunculus acris</i>	Meadow Buttercup	VL	1%
<i>Ranunculus repens</i>	Creeping Buttercup	F	3%
<i>Rubus fruticosus</i>	Bramble	VLA/LD	10%
<i>Rumex acetosa</i>	Common Sorrel	VL	<1%
<i>Rumex crispus</i>	Curled Dock	VL	1%
<i>Sagina procumbens</i>	Procumbent Pearlwort	VL	<1%
<i>Sedum acre</i>	Biting Stonecrop	R	<1%
<i>Senecio jacobaea</i>	Ragwort	VL	1%
<i>Senecio squalidus</i>	Oxford Ragwort	VL	<1%
<i>Silene dioica</i>	Red Campion	VL	<1%
<i>Solanum dulcamara</i>	Bittersweet	VL	1%
<i>Sonchus arvensis</i>	Perennial Sow-thistle	VLF	<1%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	VL	<1%
<i>Stachys sylvatica</i>	Hedge Woundwort	VLF	<1%
<i>Stellaria media</i>	Common Chickweed	VL	<1%
<i>Taraxacum officinale</i>	Dandelion	O	<1%
<i>Tragopogon pratensis</i>	Goat's-beard	VL	<1%

Continued

TABLE 7 CONTINUED

Scientific name	Common name	Abundance	Cover
<i>Trifolium pratense</i>	Red Clover	VF	2%
<i>Trifolium repens</i>	White Clover	VL	<1%
<i>Tussilago farfara</i>	Coltsfoot	LF	2%
<i>Urtica dioica</i>	Common Nettle	VA/LD*	5%
<i>Veronica arvensis</i>	Wall Speedwell	R	<1%
<i>Vicia cracca</i>	Tufted Vetch	VL	<1%
<i>Vicia hirsuta</i>	Hairy Tare	VL	<1%
<i>Vicia sativa</i>	Common Vetch	LF	<1%
<i>Vicia sepium</i>	Bush Vetch	VL	<1%

Key to abbreviations: D = Dominant, COD = Co-dominant, A = Abundant, F = Frequent, O = Occasional, L = Local/locally, R = Rare, V = Very, * = Constant species.