

KEY

- Retaind Trees,Woodland & hedgerows
- Existing Ponds (retained)
- Existing Field Margins / Grassland
- Proposed Scrub/Thicket
- Proposed Ponds with: —Deeper section, —Aquatic marginal planting &, —Aquatic marginal grass
- Proposed Wildflower/Grass
- Proposed Hibernacula
- Proposed Log Pile
- Proposed Bee/Butterfly Scrape
- Five Fords Development Redline
- Mitigation Area Blue Line

SOILS INFORMATION
It is important to understand the underlying soil conditions during the design and implementation process to evaluate slope gradients and ensure conditions are achieved to allow successful establishment of the various types of planting being advocated; thicket mix, species rich grasslands and aquatic planting.
Soil Type: Soilscape 18 (as classified on LandIS viewer)
Character: Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils;
Texture: Loamy and clayey;
Drainage: Impeded drainage
Fertility: Moderate;
Landcover: Grassland and arable some woodland
Habitats: Seasonally wet pastures and woodlands;
Carbon: Low
Water protection: Main risks are associated with overland flow from compacted or poached fields. Organic slurry, dirty water, fertiliser, pathogens and fine sediment can all move in suspension or solution with overland flow or drain water
General cropping: Mostly suited to grass production for dairying or beef; some cereal production often for feed. Timeliness of stocking and fieldwork is important, and wet ground conditions should be avoided at the beginning and end of the growing season to avoid damage to soil structure. Land is tile drained and periodic moling or subsoiling will assist drainage.

DESIGN APPROACH
- Work with contours to create a linking series of pools going from high point 52.20 heading NE towards off-site pools in adjacent fileds.
- Link existing on-site pond with surrounding ponds
- Retain on-site hedgerows and add buffer planting to provide variation in form & oak hedgerow trees

STRATEGIC APPROACH FOR LANDSCAPE PLANTING AND ECOLOGICAL IMPROVEMENT
The overall aim of these landscaping proposals is to provide connections between the existing established surrounding hedgerows, trees, ponds, and grasslands with the wider Strategic Ecological Network of the Wrexham Industrial Estate. The ponds and planting will increase species diversity, start to create a range of linked habitats and provide an uplift in ecological attributes such as pollinator species, breeding sites and wildlife foraging potential.

RE-ESTABLISHING AND ENCOURAGING EXISITING VEGETATION
The approach within this site is to encourage the locally established and appropriate vegetation to re-colonise the fields and ponds. The existing grassland will be retained as much as possible throughout and following earthworks, excavations and ground repair, will be prepared to allow for Natural Regeneration. The seedbank contained within the soil should allow the regeneration of grassland and wetland marginal planting. We would advocate selective vegetative propagation for the aquatic planting by taking small transplants of existing vegetation and relocating in suitable conditions within the newly created ponds to allow natural establishment. Grasslands can also be vegetatively extended by taking sprigs' or small areas of grass and transplanting to areas needing coverage. Ongoing maintenance would reinforce the regenerative approach for grasslands and aquatic planting.
If successful regeneration has not been achieved after 2 growing seasons, we would then suggest implementing the wildflower grass and aquatic marginal planting mixes specified on this drawing. The Wildflower species rich meadow mix is suggested to achieve a diverse flowering mix to support the ground level grassland.

PONDS - The ponds follow the principles set out by TEP (The Environment Partnership) Pond and Hibernacula Details (drawing D7215.002A) for Bryn Lane, Wrexham. Ponds to be multi-level with lower ponds depths maximum 1.5m; maximum 1:3 gradient to banks (based on stability of cover material); shallow ledge with regenerative grassland (or seeding as necessary after 2 seasons); marginal planting on 1500mm shelf (regenerative marginals from site); 1:5 banks to tie in with surrounding site levels. Refer to Earthworks notes, Pond Notes and liner specification as part of specialist information across all Networld Sports sites.

EXISTING PONDS existing ponds on site to be protected during earth movement operations to ensure good conditions maintained. Any ditches or smaller linked ponds to be checked with ecologist and engineer to ensure drainage patterns are uninterrupted and condition retained. Selective vegetation can be harvested during the planting season to vegetatively repopulate new pond areas.

HIBERNACULA AND HABITAT CREATION
Hibernacula to be built following TEP guidelines following dimensions, materials and construction recommendations. Butterfly and bee banks and scrapes to be built according to ecologists recommendations. Log piles to be sited as per plan to ecologists specification for material sizes and placement methods.

These proposals outline the bigger picture' objectives of the site planting approach and provide the strategy of how this can be achieved through earthworks modelling, creating the right soil conditions, allowing Natural Regeneration and implementing the correct species to achieve this.

PLANTING SCHEDULE
EXISTING TREES To be protected in accordance with BS5837 (2012): Trees in Relation to Design, Demolition and Construction' and based on approved Tree Protection Scheme for the site.
Refer to relevant Tree Constraints Plan and associated Arboricultural survey data sheets for detailed information on trees.

PROPOSED NATIVE THICKET (SCRUB) MIX
Planted on a 1.5m grid, with transplants in groups of 5-9 of the same species to create a natural random form. Planting grid to be set at 45 degrees to the lhedge lines to create an offset matrix pattern to avoid a grid at right angles.

Cornus sanguinea	Dogwood	10%
Corylus avellana	Hazel	15%
Crataegus monogyna	Hawthorn	15%
Euonymus europaeus	Spindle	10%
Rhamnus cathartica	Buckthorn	15%
Ilex aquifolium	Holly	5%
Rosa canina	Dog Rose	10%
Salix caprea	Goat Willow	10%
Viburnum lantana	Wayfaring Tree	10%

AQUATIC AND MARGINAL PLANTING
Planting at 0.5m spacing (4/m2); 1L container grown plants planted in accordance with suppliers specifications with reference to TEP planting proposals (D7215.001A Landscape Proposals).

Caltha palustris	Marsh Marigold	17.5%
Juncus effusus	Common Rush	10%
Juncus inflexus	Hard Rush	15%
Lythrum salicaria	Purple Loosestrife	12.5%
Mentha aquatica	Water Mint	5%
Myosotis scorpioides	Water Forget Me Not	10%
Ranunculus flammula	Lesser Spearwort	10%
Sparganium erectum	Branched Bur-reed	15%
Veronica beccagunga	Brooklime	10%

WILDFLOWER GRASS AREAS SPECIES RICH MEADOW MIX (RE1 TRADITIONAL HAY MEADOW) MG5
Species Rich Wildflower Meadow mix 20:80 mix (17 Wildflower species; 7 grass species).
RE1 (MG5 Grassland) supplied by Germinal Seeds Limited or similar approved; seed sown at rate of 5gm/m2 in accordance with the suppliers sowing instructions. Establishment and ongoing maintenance in accordance with suppliers guidance and specification.

Wildflowers:		
Yarrow	(Achillea millefolium)	1.1%
Common Sorrel	(Rumex acetosa)	1.0%
Lady's Bedstraw	(Gallium verum)	0.1%
Oxeye Daisy	(Leucanthemum vulgare)	1.4%
Ribwort Plantain	(Plantago lanceolata)	3.1%
Agrimony	(Agrimonia eupatorium)	0.8%
Self Heal	(Prunella vulgaris)	1.0%
Meadow Sweet	(Filipendula ulmaria)	0.2%
Salad Burnet	(Sanguisorba minor)	2.0%
Birdsfoot Trefoil	(Lotus corniculatus)	1.0%
White Clover	(Trifolium repens)	2.0%
Red Clover	(Trifolium pratense)	2.0%
Yellow Rattle	(Rhinanthus minor)	0.5%
Burnett Saxifrage	(Pimpinella saxifraga)	0.2%
Greater Knapweed	(Centaurea scabiosa)	0.3%
Dandelion	(Taraxacum officinale)	0.3%
Common Knapweed	(Centaurea nigra)	3.0%
Grasses:		
Strong Creeping Red Fescue	(Festuca rubra rubra)	30.0%
Crested Dogstail	(Cynosurus cristatus)	25.0%
Golden Oat Grass	(Trisetum flavescens)	5.0%
Meadow Fescue	(Festuca pratensis)	5.0%
Sheeps Fescue	(Festuca ovina)	6.5%
Browntop Bent	(Agrostis capillaris)	3.5%
Quaking Grass	(Briza media)	5.0%

AQUATIC MARGINAL GRASS AREAS WET MEADOW MIX (RE3 RIVER FLOODPLAIN / WATER MEADOW) MG8 (ONLY AFTER 2 SEASONS IF NATURAL REGENERATION DOES NOT ESTABLISH).
A mixture of grasses and aquatic wildflowers that are tolerant of wet conditions and suitable for sowing at the edges and wet margin of ponds, streams, lakes and ditches. Contains:Wildflowers 20% (14 species) Grasses 80% (9 species)
RE3 (MG8 Grassland) supplied by Germinal Seeds Limited or similar approved; seed sown at rate of 5gm/m2 in accordance with the suppliers sowing instructions. Establishment and ongoing maintenance in accordance with suppliers guidance and specification.

Wildflowers:		
Meadow Sweet	(Filipendula ulmaria)	0.5%
Dandelion	(Taraxacum officinale)	1.0%
Oxeye Daisy	(Leucanthemum vulgare)	3.6%
Ragged Robin	(Lychnis flos cuculi)	0.1%
Ribwort Plantain	(Plantago lanceolata)	4.0%
Self Heal	(Prunella vulgaris)	2.0%
White Clover	(Trifolium repens)	2.0%
Red Clover	(Trifolium pratense)	2.0%
Yellow Rattle	(Rhinanthus minor)	0.8%
Water Avens	(Geum rivale)	0.1%
Greater Stitchwort	(Stellaria holostea)	0.1%
Soft-Rush	(Juncus effusus)	0.6%
Meadow Buttercup	(Ranunculus acris)	1.9%
Salad Burnet	(Sanguisorba minor)	1.3%
Grasses:		
Slender Creeping Red Fescue	(Festuca rubra rubra)	25.0%
Crested Dogstail	(Cynosurus cristatus)	20.0%
Smooth Stalked Meadow Grass	(Poa Pratensis)	15.0%
Meadow Fescue	(Festuca pratensis)	5.0%
Creeping Bent	(Agrostis stolonifera)	2.5%
Lolium perenne	(Lolium perenne)	5.0%
Yorkshire Fog	(Holcus lanatus)	2.5%
Browntop Bent	(Agrostis capillaris)	2.5%
Timothy (Small eared)	(Phleum bertolonii)	2.5%

16/12/2025	2	CB	Annotation Updates
15/12/2025	1	CB	Drawing Issue

Date	Original size	Scale	Drawn by	Checked by	Rev
16/12/2025	A1	1:1000	CB	JK	V2

Drawing no: 4751-NLA-3-100-Five Fords Ecological Area
Status: PLANNING
Drawing Title: Landscape Design Strategy
Location: Five Fords - Wrexham Industrial Estate
Client name: Net World Sports

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