

Notes and recommendations for habitat management of 'The Sands' public green space, Carlton-le-Moorland based on a brief visit 27/01/2020

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Site aerial image



(Dashed white line indicates desire lines / mown footpaths)

## Brief comments on compartments

### Pond

This has the potential to be the principal biodiversity asset on site due to the additional biodiversity freshwater can support. It is likely that the pond is fed by agricultural run-off and/or groundwater. The OS maps suggest no nearby source. The marginal willows are well established and mature/semi-mature. They cast extensive shade over the water and contribute substantial amounts of leaf litter which rot down within the pond. Two stretches of shoreline are easily accessible to the public. No non-native, invasive flora was seen. Toads have been noted in the past.

### Management Recommendations

- There is an opportunity to create a shallow, gradually graded lake edge at the eastern end of the southern edge. This could be dug by hand but would most easily be scraped by a mini-digger. Freshwater supports most biodiversity when it is 10cm deep within a draw-down zone. The shallow marsh fringe that would result would vary in wetness between seasons. This would be an excellent opportunity to introduce by seed or plug plants an assemblage of marginal wildflowers closer to the pond edge and wet grassland species further from it. Ongoing management once established would be annual cutting and raking off in September for wet grassland and pond margin cutting and raking out every 3 years with willow sapling control. Examples of suitable species are:
  - **Marginal plants:** Herbs - Sneezewort (*Achillea ptarmica*), Wild Angelica (*Angelica sylvestris*), Marsh Marigold (*Caltha palustris*), Common Knapweed (*Centaurea nigra*), Hemp Agrimony (*Eupatorium cannabinum*), Meadowsweet (*Filipendula ulmaria*), Water Avens (*Geum rivale*), Square-stalked St John's Wort (*Hypericum tetrapterum*), Yellow Iris (*Iris pseudacorus*), Greater Birdsfoot Trefoil (*Lotus pedunculatus*), Gypsywort (*Lycopus europaeus*), Purple Loosestrife (*Lythrum salicaria*), Water Mint (*Mentha aquatica*), Common Fleabane (*Pulicaria dysenterica*), Meadow Buttercup (*Ranunculus acris*), Great Burnet (*Sanguisorba officinalis*), Ragged Robin (*Lychnis flos-cuculi*), Devil's-bit Scabious (*Succisa pratensis*), Tufted Vetch (*Vicia cracca*); Grasses - Common Bent (*Agrostis capillaris*), Meadow Foxtail (*Alopecurus pratensis*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Crested Dog's-tail (*Cynosurus cristatus*), Tufted Hair-grass (*Deschampsia cespitosa*), Slender-creeping Red-fescue (*Festuca rubra*), Meadow Barley (*Hordeum secalinum*), Meadow Fescue (*Schedonorus pratensis*); Sedges and rushes - Hard Rush (*Juncus inflexus*), Soft Rush (*Juncus effusus*), Compact Rush (*Juncus conglomeratus*), Jointed Rush (*Juncus articulatus*), Field wood-rush (*Luzula campestris*), Glaucous sedge (*Carex flacca*), False fox-sedge (*Carex otrubae*).
  - **Wet grassland plants:** Herbs - Yarrow (*Achillea millefolium*), Sneezewort (*Achillea ptarmica*), Betony (*Stachys officinalis*), Common Knapweed (*Centaurea nigra*), Meadowsweet (*Filipendula ulmaria*), Lady's Bedstraw (*Galium verum*), Rough Hawkbit (*Leontodon hispidus*), Oxeye Daisy (*Leucanthemum vulgare*), Birdsfoot Trefoil (*Lotus corniculatus*), Greater Birdsfoot Trefoil (*Lotus pedunculatus*), Ribwort Plantain (*Plantago lanceolata*), Cowslip (*Primula veris*), Selfheal (*Prunella vulgaris*), Meadow Buttercup (*Ranunculus acris*), Yellow Rattle (*Rhinanthus minor*), Great Burnet (*Sanguisorba officinalis*), Pepper Saxifrage (*Silaum silaus*), Ragged Robin (*Lychnis flos-cuculi*), Devil's-bit Scabious (*Succisa pratensis*); Grasses - Common Bent (*Agrostis capillaris*), Meadow Foxtail (*Alopecurus pratensis*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Crested Dog's-tail (*Cynosurus cristatus*), Tufted Hair-grass (*Deschampsia cespitosa*), Slender-creeping Red-fescue (*Festuca rubra*),

Meadow Barley (*Hordeum secalinum*), Meadow Fescue (*Schedonorus pratensis*);  
Sedges and rushes - Hard Rush (*Juncus inflexus*), Soft Rush (*Juncus effusus*),  
Compact Rush (*Juncus conglomeratus*), Jointed Rush (*Juncus articulatus*), Field  
wood-rush (*Luzula campestris*), Glaucous sedge (*Carex flacca*), False fox-sedge  
(*Carex otrubae*).

- Large carp were reported in the past but have since died out due to previous dry summers which reduced the water volume. Only roach is known to be currently present. If parts of the lake dry out in summer this is not necessarily a problem as this will regulate the fish population and reduce predation pressure on invertebrates and amphibian spawn and juveniles. The introduction of fish is strongly advised against - especially bottom feeding carp species as these will increase turbidity. Ephemeral water bodies are often more biodiverse due to the lack of fish.
- The mature willows around the pond edge will need to be coppiced and de-limbed on rotation to maintain direct sunlight to the majority of the pond and to reduce the leaf fall to less than half of its current level. Both of these measures will combine to raise oxygen levels that will be beneficial to freshwater fauna. This work will need to be carried out at the driest time outside of the bird nesting season so September/October is advised. Trees and parts of trees associated with aging and ivy may however be important for bats (summer roosting and/or winter hibernation). Deep cracks, dense ivy, loose bark and small/large holes all hold potential for bats. It is strongly suggested that such features are retained as much as possible – especially along the northern boundary of the site and by agreement with the adjacent landowner - because they are furthest from any potential footfall (for safety reasons) and offer greatest wildlife value. The cut branches and logs generated are best retained on site by the pond edge as refugia for amphibians, within the scrub area and under the mixed woodland to boost wildlife that depends on dead and decaying wood. Some logs and a small bundles of brash can also be submerged in the pond itself as shelter for zooplankton and invertebrates.
- Further, detailed guidance on pond and pond margin management can be found here: <https://freshwaterhabitats.org.uk/>

#### Mixed Woodland along eastern edge

The mixed woodland on the eastern edge has densest tree growth in the north-east corner. The hedgerow along the eastern boundary has failed to establish due to high shade levels. Ivy dominates the ground flora with cow parsley, hogweed and common nettle indicating both high shade in summer and high fertility in the soil.

#### Management Recommendations

- To reduce the dominance of ground level ivy and nettle along the western edge of this compartment, spoil from any pond edge grading can be deposited here after forking out the ivy and nettle roots as thoroughly as possible. This will stifle regrowth of what remains and can form the substrate for a woodland flora sowing/planting. Retention of half of the existing ground cover is advised.
- Examples of suitable plant species to sow/plant here are: Herbs – Bugle (*Ajuga reptans*), Common Dog-violet (*Viola riviniana*), Garlic Mustard (*Alliaria petiolata*), Ramsons (*Allium ursinum*), Betony (*Stachys officinalis*), Rough Chervil (*Chaerophyllum temulum*), Foxglove (*Digitalis purpurea*), Meadowsweet (*Filipendula ulmaria*), Hedge Bedstraw (*Galium album*), Water Avens (*Geum rivale*), Wood Avens (*Geum urbanum*), English Bluebell (*Hyacinthoides*

*non-scripta*), Hairy St John's-wort (*Hypericum hirsutum*), Selfheal (*Prunella vulgaris*), Sweet Violet (*Viola odorata*), Red Campion (*Silene dioica*), Ragged Robin (*Lychnis flos-cuculi*), Wood Sage (*Teucrium scorodonia*), Wild Primrose (*Primula vulgaris*); Grasses: Common Bent (*Agrostis capillaris*), Sweet Vernal-grass (*Anthoxanthum odoratum*), False Brome (*Brachypodium sylvaticum*), Crested Dogtail (*Cynosurus cristatus*), Tufted Hair-grass (*Deschampsia cespitosa*), Slender-creeping Red-fescue (*Festuca rubra*), Wood Meadow-grass (*Poa nemoralis*).

- Ongoing management of a woodland flora may require cutting and raking off every 2-3 years with occasional coppicing of smaller trees and selective thinning favouring native oak over birch and sycamore.

#### Scrub with silver birch in south-west corner

Birds reported and seen from this site are dependent upon this area in particular for nesting, either at ground level or in the dense shrub cover. This is currently the most important vegetation assemblage on site for birds, small mammals and amphibians. Although this area appears overgrown, it is set back from the road and does not intrude onto the public highway. Children are known to play within it. The ground cover includes Cleavers (*Galium aparine*) which indicates high fertility. Small open bays off the paths can be mown and raked-off for 3-4 years before planting/sowing with woodland herbs listed above.

#### Management Recommendations

- Rotational management and low intervention are key here. Tree management in this area should not be more than occasional, selective thinning of trees that start to dominate or removal of trees judged to be dangerous to the public. Retention of mature willow at the pond edge is advised although this can be pruned occasionally. Thoroughfares can be maintained by pruning of brambles with loppers. The south-facing side of the bramble area can be managed on rotation (e.g. 1/3<sup>rd</sup> in any one year). It is recommended that this is cut and removed to 1-2m depth only in order to promote a cycle of new growth at the edge without removing all cover at once. Light bramble edge clearance should only be undertaken in winter. Overwintering bramble is vital to ground-nesting birds in the following spring.

#### Open Grassland

At present, the open grassland area is mown frequently and is species-poor. There is a high proportion of perennial rye-grass in places together with other competitive grass species and there are relatively few broadleaved herb species. Those wildflowers in this area noted on the day included: Yarrow, Dove's-foot Cranesbill, Bulbous Buttercup, Creeping Buttercup, Hop Trefoil, Common Daisy and Dandelion. A non-native oak and a beacon are located centrally.

#### Management Recommendations

- If there is an overriding requirement to maintain areas of short turf throughout the year, consider scarifying heavily in October following a very short cut and oversowing with a flower-only 'flowering lawn' seed mix from a reputable supplier. This will introduce a diversity of flowers which will continue to flower between mowings 6-8 weeks apart. Always collect cuttings and dispose in a designated rot-down pile.
- An alternative would be to manage the majority of the area as a wildflower meadow cut only twice per year (mid-August to early September and again in late October) with cuttings collected. Thoroughfares and areas around infrastructure such as benches can be maintained as grass paths by frequent ride-on or pedestrian mulch mowing.

- The existing grassland can be floristically enhanced as a meadow by either:
  - **Scarification:** Heavy scarification in October following a short cut and collection (leaving c.50% apparently bare soil) and oversowing with wildflower meadow seed mix. This area would then need to be mown frequently with a collector mower on a high blade setting during the following year to top weeds but encourage root development of perennials before moving to a twice per year meadow cut routine from year 2 onwards.
  - **Plug planting:** The existing sward can be planted with propagated wildflowers. To aid establishment of the introduced plants, a shallow square of turf should be cut with a spade and inverted before the plant is planted within it. Meadow management can follow the next year.
  - **Turf stripping and sowing with/without plug plants:** A turf cutter can be used to remove competitive grasses and create a seedbed in September/October. The areas of stripped turf can then be sown with an 80%/20% meadow seed mix (non-competitive grass/wildflower by weight). During the following establishment year the restoration area should be mown frequently with a collector mower on a high blade setting to top weeds but encourage root development of perennials before moving to a twice per year meadow cut routine from year 2 onwards. Cuttings in Sep/August from existing wildflower meadow areas can be used as a seed source if hay is strimmed and spread onto adjacent areas (up to 3x the size of the donor area) of stripped turf.
  - **For further advice on managing community grassland for wildlife see our online resources including downloadable guides and instructional 'how to' videos:**  
<https://www.lincstrust.org.uk/wildlife/wildlife-gardening/wildflower-hub>
- Meadow plant species introduced at this location should be suited to acid soils. Examples include: Herbs – Yarrow (*Achillea millefolium*), Common Knapweed (*Centaurea nigra*), Wild Foxglove (*Digitalis purpurea*), Lady's Bedstraw (*Galium verum*), Common Catsear (*Hypochaeris radicata*), Autumn Hawkbit (*Leontodon autumnalis*), Oxeye Daisy (*Leucanthemum vulgare*), Birdsfoot Trefoil (*Lotus corniculatus*), Ragged Robin (*Lychnis flos-cuculi*), Ribwort Plantain (*Plantago lanceolata*), Cowslip (*Primula veris*), Meadow Buttercup (*Ranunculus acris*), Yellow Rattle (*Rhinanthus minor*), Common Sorrel (*Rumex acetosa*), Sheep's Sorrel (*Rumex acetosella*), Betony (*Stachys officinalis*), Devil's-bit Scabious (*Succisa pratensis*), Tufted Vetch (*Vicia cracca*); grasses - Common Bent (*Agrostis capillaris*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Crested Dogstail (*Cynosurus cristatus*), Wavy Hairgrass (*Deschampsia flexuosa*), Hard Fescue (*Festuca Trachyphylla*), Red Fescue (*Festuca rubra*), Smooth Stalked Meadow Grass (*Poa pratensis*).

## Additional Thoughts

### *Compost cuttings allotments*

The adjacent allotments provide an excellent opportunity to utilise the cuttings and leaf rakings from the management of the Sands. Compost cells could be constructed with pallets and used to rot down the leaf mould and grass cuttings from the site's habitat management for addition to the growing plots. This will hopefully act as a community incentive to collect and remove cuttings from grassland and pond margin management.

### *Ivy*

Where ivy covers growing trees this is a biodiversity asset – providing vital late season nectar, winter berries for birds and much needed shelter for invertebrates, bird nesting and bat roosting. Unless the trees have become dangerous to the public, it is recommended that ivy is retained as much as possible.

### *Suppliers*

The Lincolnshire Wildlife Trust has worked with the following suppliers and would give these as examples of reputable sources of seeds and plants.

Emorsgate Seeds: <https://wildseed.co.uk/>

Naturescape: <https://www.naturescape.co.uk/>

Aveland Trees: <https://www.avelandtrees.co.uk/>

### *Funding advice for community green spaces*

- <https://mycommunity.org.uk/resources/grants-green-spaces/>
- [https://www.groundwork.org.uk/national-grants/grants\\_tesco-community-grants/](https://www.groundwork.org.uk/national-grants/grants_tesco-community-grants/)
- <https://www.aviva.co.uk/services/more-from-aviva/aviva-community-fund/>

### *Birds seen on the day:*

- House Sparrow (abundant)
- Wren
- Robin

### *Birds noted in the past include:*

- Bullfinch
- Chiff-chaff
- Willow Warbler
- Blackcap