BIODIVERSITY RECOMMENDATIONS FOR SUNNYBANK VALE, DROYLSDEN

June 2011

© Steve Young - Bullfinch

Greater Manchester Ecology Unit

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A Report prepared for –

Friends of Sunnybank Vale, Droylsden

By

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1 INTRODUCTION

Biodiversity can perhaps best be defined as 'the mix of wild plants and animals with which we share our world', or more simply as 'wildlife'. Urban greenspaces can be valuable places for biodiversity and can provide important wildlife corridors to allow wildlife to move through.

This is an assessment of the current biodiversity value of one of these spaces, Sunnybank Vale, and provides suggestions for some simple measures that could be taken to enhance the biodiversity value of the site.

2 BACKGROUND TO THIS ASSESSMENT

The Greater Manchester Ecology Unit (GMEU) was asked by the Friends of Sunnybank Vale to make a brief visit to the site and provide a short follow-up report with suggestions for biodiversity enhancements.

The information in this report has been drawn from a short site visit on 14th June 2011 conducted by Mandy Elford, Greater Manchester Biodiversity Manager and Suzanne Waymont, Senior Ecologist, together with an Ecological Data Search for existing information about the site, obtained from the GM Local Records Centre. This only shows site details no protected species records are shown therefore it should not be taken as a comprehensive ecological assessment of the site.

3 OVERALL SITE DESCRIPTION

The site now known as Sunnybank Vale is a former landfill site previously known and sometimes still referred to simply as 'the tip'. The majority of the land is owned by Greater Manchester Waste although the perimeter of the site is owned and maintained by Tameside MBC. The site is bounded to the east by residential properties, to the south by open recreation grounds and allotments, to the west (separated by Edge Lane) by Clayton Vale Local Nature Reserve (LNR) and to the north by residential properties and Clayton Vale LNR.

Sunnybank Vale is a valuable area of greenspace east of Manchester City Centre and has the potential to serve a large part of the community of Droylsden. The site is already an important habitat for wildlife however there is significant potential for enhancing the biodiversity value of the site and also making the site more welcoming for people.

The site is adjacent to Clayton Vale LNR and two of the ponds within the LNR are Sites of Biological Importance (SBIs).

There are no Sites of Special Scientific Interest (SSSI) within the site boundary.

Bullfinch was recorded on the site visit; bullfinch is a UK Biodiversity Priority Species.

The site comprises planted broadleaved trees, scrub and semi-natural grassland which is generally rather species-poor. There are some old mature trees around the perimeter of the site and some standing deadwood. There are also areas of wet grassland.

4 LEGISLATIVE FRAMEWORK AND RESPONSIBILITIES

There are certain laws, statutes and guidelines related to nature conservation that groups and developers should be aware of and need to take into account when planning management and/or changes to the habitats on a site.

These will be covered in detail should a full ecological assessment of the site be commissioned, but this preliminary study has indicated that the most important statutory duties that apply to this site may relate to the need to control invasive plant species, particularly Himalayan balsam and Japanese knotweed.

5 SUGGESTED BIODIVERSITY ENHANCEMENT MEASURES

Sunnybank Vale has potential for biodiversity enhancements. The following preliminary proposals are suggestions and not prescriptions, open for debate and change.

Suggestions are made for the enhancement of the existing important biodiversity features on the site but there are also more general suggestions. All of the proposals are aimed at the principle of increasing the number and variety of *ecological niches* available in Sunnybank Vale. This means introducing as much variety as possible, particularly in terms of providing:

1 temporal variety – this means having food sources and sources of shelter and protection available for as many wildlife species as possible for as much of the year as possible. For example, planting a range of flowering plants that make nectar available through as much of the year as possible, or putting up bat hibernation boxes for use during the winter months.

2 as wide a range of sustainable food sources as possible

3 a range of areas that can be used by wildlife for shelter – for example log piles, low growing shrubs and artificial nesting boxes for birds, bats and invertebrates.

4 a variety of texture and structure in the vegetation – for example, planting hedgerows and shrubs, allowing grass to grow to different heights in some places and allowing some areas of bare soil to be created and left for periods in the year.

Recommendations –

The following are general recommendations and could be subject to change and/or modification if a full survey is commissioned.

- Certain areas of the site have densely planted young trees, these trees require thinning in places this will enable a woodland ground flora to establish and/or be planted and will also provide site-lines along the paths making the site feel more welcoming and safe for people.

- Retain standing deadwood wherever possible. Leave fallen branches to decay on site where possible and create log piles from the thinning of the trees. Dead wood is great for invertebrates.

- Removal of the invasive plant species Himalayan balsam and Japanese knotweed (see appendix 3 & 4 re treatment of these species).

- Areas of the species poor grassland could be transformed into more species-rich wildflower meadows. Advice on how to do this and seed mixes can be obtained from a variety of sources, including **Landlife**, a nationally registered wildflower charity, based in Liverpool. Their email address is https://www.landlife.org.uk.

- Management of areas of semi-natural grassland by mowing once or twice a year.

- There are a number of places where wet grassland occurs; as there are no open areas of water on the site it would be a good opportunity to create a number of ponds within these areas. As the site was a former tip, advice would need to be sought from the environment agency to see if this was possible.

- There are opportunities along the perimeter of the houses to the north of the site to plant new hedgerows. Once the hedgerows are planted the grass could be left longer at the base of the hedge line to create more diversity. Funding is available for the creation of new hedgerows (www.treecouncil.org.uk).

- A number of bird boxes could be placed around the site. To avoid these boxes being predated fix a metal panel to the front. This will also save having to replace boxes which can potentially be destroyed by predators such as woodpeckers and squirrels.

- Consider the placement of a variety of bat boxes for use at various different times in the year (summer roosting/hibernation).

USEFUL SOURCES OF INFORMATION/FUNDING

- **Landlife,** a wildflower charity, offer advice on wildflower grassland creation and can supply seeds**.** **www.wildflower.org.uk**
- The **RSPB** are a useful source of information on biodiversity enhancements for birds. **www.rspb.org.uk**
- The **SITA Trust** offers a range of grants for practical biodiversity projects. **www.sitatrust.org.uk**
- The **Tree Council** offers a range of grants for hedgerow planting and also woodland planting. **www.treecouncil.org.uk**
- The **Heritage Lottery Fund** offers a range of funding for community groups **www.hlf.org.uk.**

Appendix one – Species Recorded during site visit

Trees/shrubs	Grassland
Goat Willow	Red clover
Grey Willow	Yorkshire fog
Sycamore	Creeping buttercup
Silver birch	False oat grass
White Poplar	Field horsetail
Hawthorn	Rosebay willowherb
Maple	Crested dog's tail
Hazel	Common vetch
Cherry	Common bird's foot trefoil
Blackthorn	Compact rush
Rowan	Hard rush
Oak	Reed canary grass
Alder	Yellow flag iris
Rose	Pendulous sedge
Goat Willow	Horseradish
Grey Willow	Ground elder
Bramble	Red clover
Ash	Hedge woundwort

Fauna
Shrew
Bullfinch (UK Biodiversity Action Plan Priority Species)
Jay
Chiff chaff
Wood Pigeon
Carrion Crow
Blackbird
Speckled wood butterfly
Small skipper butterfly
Alder Beetle

Invasive Species
Japanese knotweed
Himalayan balsalm

Speckled Wood Butterfly – Photo taken on site

Appendix two – Invasive Weeds

What are invasive weeds?

Several types of plant can become invasive weeds. They are either native species that grow well in disturbed or nutrient-enriched conditions, to the detriment of other plant and animal species, or non-native plants that have been introduced to this country by accident or as a consequence of trade or deliberate collection. The latter tend to grow in situations where native plants of similar form do not. Not all non-native species become weeds, but if they do, they become very difficult to control. Native weed species, although troublesome, do not cause as much ecological or physical damage as the non-native variety. Invasive non-native species tend to share characteristics that make them successful. These are related to the method of reproduction, growth rate, growth form and persistence, but in particular the absence of pests and diseases and their consequent resistance to control. The introduction of plant species into new environments carries risks. The danger of species becoming serious weeds in agricultural areas is well controlled, but other potential weeds are not currently recognised and subject to risk assessment and management. The effects of climate change will alter the distribution of weed species in future; already, several aquatic weeds found in Europe originated in sub-tropical areas of the world. The predicted consequences of global warming, including increased temperatures, increased carbon dioxide and stormier weather, make it more likely that additional invasive species will cause problems in future. The huge increase in the distribution of Himalayan balsam since 1962 indicates that conditions are ideally suited for this species. Other species may respond similarly in future if climate change favours their colonisation and rapid growth. Plants that grow in water and on riverbanks can cause flooding if not managed correctly. The consequences and costs of invasive non-native species are huge.

Existing legislation

When non-native species become invasive they can transform ecosystems, causing a variety of problems including seriously threatening native and endangered species. These problems are acknowledged in several international treaties, European Union Directives and also in domestic legislation. The problems caused by some invasive non-native species occur worldwide, and international obligations to address them are placed on the United Kingdom through regional and global agreements. These include the Convention on Biological Diversity (CBD), International Plant Protection Convention (IPPC), the Bern Convention on the Conservation of European Wildlife and Natural Habitats, and the EC Habitats and Species Directive. The sixth CBD conference adopted a series of Guiding Principles for States to follow as part of their invasive non-native species policies. The Wildlife and Countryside Act 1981 (as amended) provides the primary controls on the release of non-native species into the wild in Great Britain. It is an offence under section 14(2) of the Act to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, Part II. The only flowering plants currently listed in Schedule 9 are Japanese knotweed and giant hogweed. However, Japanese knotweed in particular has continued to spread and has nearly doubled its distribution in the past 20 years. Stricter enforcement provisions for wildlife offences were introduced under the Countryside and Rights of Way Act 2000. These include increased penalties available to the courts for offences committed under the Wildlife and Countryside Act 1981. The Weeds Act 1959 provides for the control of five specified weeds. These are non aquatic species, though ragwort, *(Senecio jacobaea)*, can grow in riparian areas. This legislation is

directed at clearing weeds that threaten agricultural production.

Other legislation relevant to non native species control includes:

- Environmental Protection Act 1990
- Environmental Protection (Duty of Care) Regulations 1991
- Town and Country Planning Act 1990
- Highways Act 1980
- Water Resources Act 1991
- The Waste Management Licensing Regulations 1994
- The Landfill (England and Wales) Regulations 2002

The Government has acknowledged the problems that can be caused by non-native invasive species. It has established a programme board to oversee a GB-wide framework strategy. This strategy was a key recommendation from the Non-native Species Review Group Report that was published in 2003 and is in line with the guiding principles established by the Convention on Biological Diversity.

Invasive Weed Control

Responsibility for dealing with invasive weeds rests with individual landowners. Strategic, widespread control is currently not the sole responsibility of any statutory organisation. The Environment Agency may seek to control specific invasive weeds on land that it owns or flood defence structures that it maintains. Control efforts by individuals can help reduce the spread of invasive non-native species and are most successful if carried out as a catchment wide co-ordinated strategy with collaboration of all relevant parties. Control often needs to be repeated year after year.

General methods of control

There are four basic methods of controlling weeds: mechanical, chemical, natural and environmental. Mechanical control includes cultivation, hoeing, pulling, cutting, raking, dredging or other methods to uproot or cut weeds. Chemical control uses specific herbicides. Natural control uses pests and diseases of the target weed to weaken it and prevent it from becoming a nuisance. Environmental control works by altering the environment to make it less suitable for weed growth, for example by increasing or decreasing water velocity. In England and Wales the use of herbicides in or near rivers, canals, lakes and drainage channels requires prior agreement from the Environment Agency.

Appendix three - Control of Himalayan Balsam

Control measures should aim to prevent flowering, and are best carried out before June for maximum effectiveness. Chemical control near water can be carried out with herbicides containing glyphosate or 2,4-D amine. Glyphosate will kill all plants, but 2,4-D amine will kill only broad-leaved weeds; for best effect, use when the plant is small and actively growing, particularly in springtime. Cutting, mowing or strimming on a regular basis for about three years will be effective and may even eradicate the plant from isolated sites.

Non Chemical Control

Cutting
Cut at ground level using a scythe, machete, flail or strimmer before the flowering stage in June. Cutting earlier than this will promote greater seed production from plants that regrow. Cutting should be repeated annually until no more growth occurs.

Pulling
Shallow-rooted plants can be hand pulled up very easily and disposed of by burning, or composting unless seeds are present.

Grazing
Grazing by cattle and sheep is effective from April throughout the growing season. It should be continued until no new growth occurs.

Chemical Control

Glyphosate
Treatment with a weed wipe in mixed stands, or by foliar spray in dense stands, before flowering. If all plants are controlled, then spraying programmes should only be required for two to three years.

2,4-D amine
Treat during early spring at the rosette stage for effective control.

In general
It is essential to establish vegetation quickly after control measures have been applied. Dense grass sward tends to discourage seed germination. Control should be undertaken on a catchment basis, working from the upstream end to prevent seed recolonisation.

* *In England and Wales the use of herbicides in or near rivers, canals, lakes and drainage channels requires prior agreement from the Environment Agency.*

Appendix four – Control of Japanese knotweed

There are several stands of Japanese knotweed on the site

Japanese knotweed, *Fallopia japonica* is a very invasive weed. It occurs throughout Greater Manchester in a variety of places. It was introduced from Japan as a garden plant in 1850. It was spread through fly tipping and vegetative propagation across large tracts of land. The smallest fragment of this invasive plant will propagate.

Knotweed has been controlled with some success for some years by means of foliar herbicide spraying, although there are a number of concerns regarding the impact of foliar spraying because of its effect on the surrounding vegetation. Herbicide spraying therefore needs to be undertaken carefully by properly trained operatives. This method also requires two visits per year to the site. In 1999 a three year programme to investigate a new methodology for the control of knotweed commenced. The research looked at a new way of controlling knotweed using the cut and injection method; it also compared a variety of herbicides which were known to have been successful in controlling knotweed using the foliar spray methodology. The research investigated the effect on the surrounding ground flora and shrubs and trees.

Herbicides tested

- Glyphosate (Roundup Pro Bi-active)
- 2,4D Amine (Dormone)
- Asulam (Asulox)
- Picloram (Tordon 22K)
- Triclopyr (Garlon 4)
- Diquat (Reglone)
- Imazapyr (Arsenal 50)

Only Glyphosate, Diquat and 2,4D Amine are licensed to use near water courses, where many infestations occur. Picloram and Imazapyr can be persistant and damage neighbouring trees and broadleaved herbs. Picloram and Imazapyr are not recommended for use in areas to be landscaped or in natural vegetation. The following best practice has emerged from the research.

Methodology for Control

- The knotweed is cut with loppers, just below the first node, usually about 8 to 10cms above ground level. Some operators prefer to cut just above the node and perforate the septum with a sharp instrument. There does not appear to be any difference between the effectiveness of the methods.
- The cut growth is stacked on site, usually on polythene and later burnt.
- The optimum timing is mid-August to late September, provided the knotweed is not stressed by drought or frost.
- Using a spot gun applicator, 5 to 10mls of the herbicide (Roundup bi-active) is applied to the hollow cut stem. With larger patches, a dye is added to ensure each stem is treated.

- Any re-growth is likely to be low growing and distorted and cannot therefore be treated with the injection method. This should be spot sprayed with Roundup Pro-Biactive, ensuring minimum run-off.
- The site should be monitored for at least five years and any re-growth tackled as soon as possible

The cut and inject method is a very effective way of controlling Japanese knotweed. Although primarily designed for use in sites of high nature conservation value or in gardens and cemeteries, it can in fact be used anywhere. There can be time savings over the foliar spray method because it needs only one visit per year. Aftercare treatment will generally require spot spraying of individual re-growth the following year. The method can be used in moderately windy conditions. It will be accepted far more readily by communities concerned about herbicide use.

It is important to treat all knotweed on a site. The 'edge effect' of leaving plants will cause knotweed to re-invade. It is also important to re-visit the site annually and tackle any re-growth.

Roundup Pro-Biactive is the most effective herbicide for most situations and is licensed to be used near water courses. Kill rates vary, depending on soil depth and how well established the knotweed is. On some very extensive research sites in Cornwall, a 99 per cent reduction in knotweed has been achieved over three years.

Appendix Five

Map Showing Boundary of the site and its proximity to SBI's and LNR's
(no protected species data is included)

KEY

SITE OF BIOLOGICAL IMPORTANCE (SBI)

SBI BOUNDARY

LOCAL NATURE RESERVE (LNR)

LNR BOUNDARY

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH SHOWING PROXIMITY OF SITE TO SITES OF BIOLOGICAL IMPORTANCE AND LOCAL NATURE RESERVES

SCALE 1:10000

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