An Ecological Survey
of
Holmhills Wood Community Park

- **Background Research**
- **Phase 1 Habitat Survey (August / September 2015)**
- **Habitat Appraisal**
- **Preliminary Management Recommendations**

by:
Alison Park B.Sc.

Prepared for:
Friends of Holmhills Wood Community Park
c/o Cambuslang Community Council

FRIENDS OF HOLMHILLS WOOD COMMUNITY PARK

December 2015

CONTENTS

1. Survey Objective

Holmhills Wood Community Park is an area of public greenspace serving a large urban population in the Central Belt of Scotland. South Lanarkshire Council established the Community Park in 2001 following a major landscaping makeover of derelict agricultural land that had been abandoned since the 1960s. The development added woods, ponds, paths and sports pitches benefitting both nature conservation and the local community and the current maintenance schedule continues to serve these dual interests effectively. It is now appropriate, in support of the worldwide sustainability agenda and Nature Conservation (Scotland) Act 2004, to consider reviewing Park Maintenance and adopting specific habitat management practices to maximise biodiversity within the mosaic of habitats.

This report has been prepared for the community group Friends of Holmhills Wood Community Park and should provide a baseline ecological assessment to help with the group's core aims of protecting biodiversity and promoting sustainable use of the site for the benefit of both wildlife and people.

The report includes observations from a Phase 1 Habitat Survey of the Park that was undertaken in August/September 2015. There is also supplementary information and examination of the origin and status of the habitats identified. In conclusion there is a list of further survey, and habitat management, suggestions for future consideration by members of Friends of Holmhills Wood Community Park.

2. Background Information

2.1. Location and general description

Holmhills Wood Community Park is located at OS Grid Reference NS635497 in the southern part of Cambuslang, within the south eastern fringe of Greater Glasgow (see Fig 1). The site is owned and managed by the Local Authority Council of South Lanarkshire as informal parkland.
The Park occupies an elevated position offering spectacular views of Cambuslang and Glasgow with a backdrop of uplands including Ben Lomond and the Campsie Hills. Set inside the west of the Park three educational establishments (Cathkin High School, Rutherglen High School and Cathkin Community Nursery) occupy a large building with associated car park and hard-surfaced sports pitches. The Park covers around 18 hectares in total (approximate measurement from Google map application) and represents a valuable asset for wildlife. Although completely surrounded by urban built-up land the presence of nearby greenspace areas (Cambuslang Park, Kirkhill Golf Course, Cathkin Braes and many other small pockets of vacant land) and linked wildlife corridors (Borgie Glen, railway lines, road verges, pedestrian access routes) is beneficial for the conservation of biodiversity within the Park and its vicinity.

2.2. Physical Features

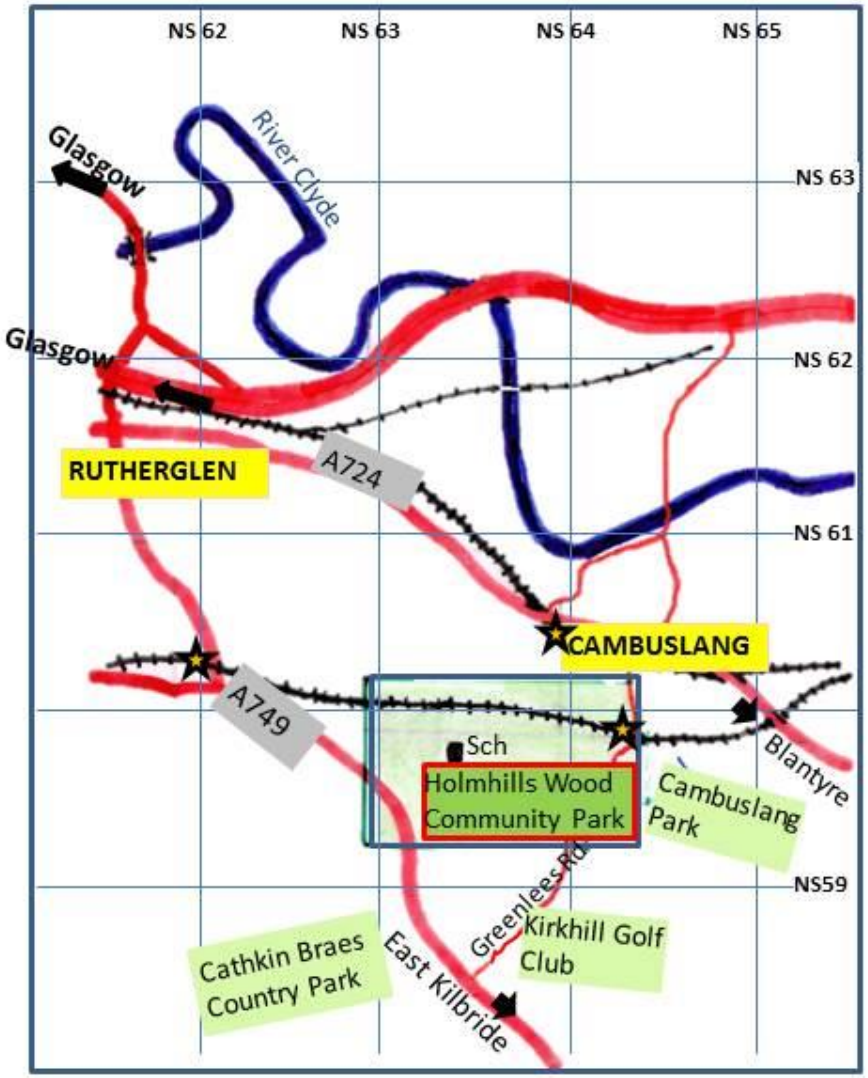
The underlying rocks are largely Productive Coal Measures of the Carboniferous Period. Soils are classed as non-calcareous gley soils derived from glacial till under waterlogged conditions and a layer of clay beneath a thin mineral soil layer continues to impede drainage.
The terrain generally slopes downwards in a northerly direction. There are several drainage ditches, some connecting ponds. During the survey period these ditches were mostly dry whilst muddy waterlogged areas were found throughout the Park, even affecting the sports fields. In the eastern area there is a group of three ponds that were created prior to 2001 though it is possible that naturally formed pools existed earlier.

2.3. Land use

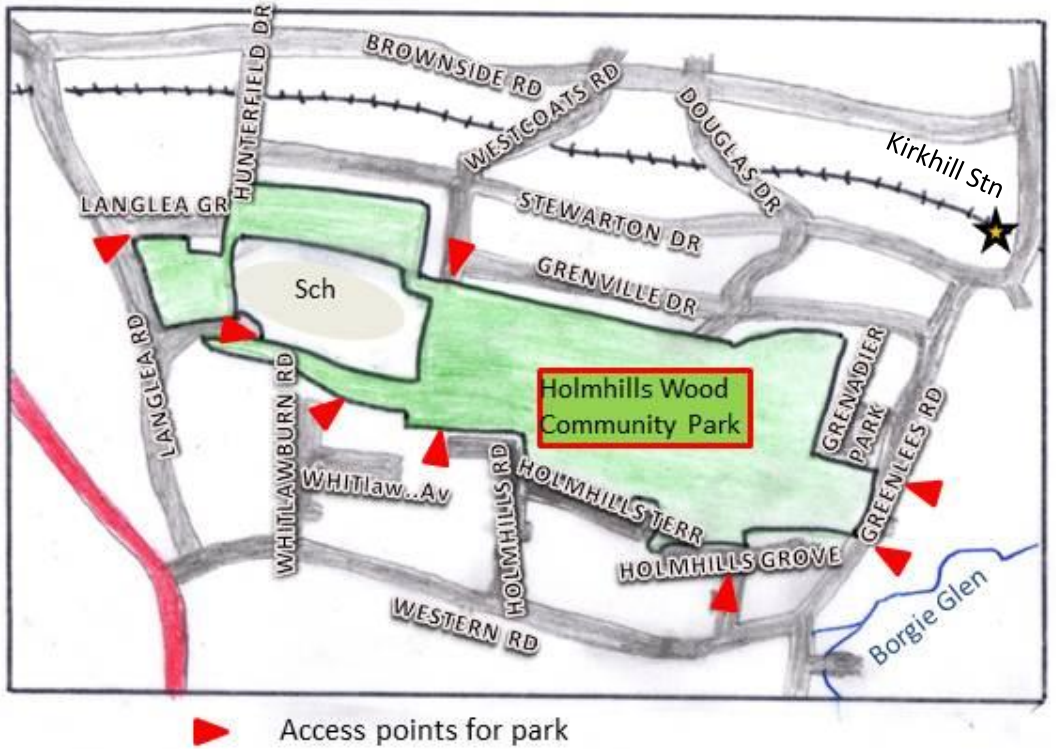
An examination of historical maps available online (National library of Scotland Website: Explore georeferenced maps) illustrates that through 18th, 19th and 20th century up to the 1960s the area was farmland managed by Whitlawburn Farm to the west and Holmhills Farm to the east. On the first edition Ordnance Survey Map (c1860) Whitlawburn Farm appears as a prosperous estate embellished with formal gardens and an orchard. These grand features are absent from later maps but a tall stone still standing in scrub near Langlea Road is probably a remnant of the former Whiltlawburn Farm buildings. Interestingly, the woodland currently on the high point of the site adjacent to Holmhills Terrace shows on the OS First Edition Six inch map (c 1860) and on all subsequent maps, sometimes named as “Holmhills Wood”. This wood is absent from the Roy Military Survey of Scotland c1750 (generally regarded as the earliest reliable Scotland-wide map source), and its depiction on the OS first edition map suggests it was planted in 18th /19th century to provide a landscape feature along with timber and shelter for agricultural use.
On the Ordnance Survey Air Photo Mosaics of Scotland, (1944-1950) Holmhills Wood is definitely present. This source also shows trees and buildings (some possibly industrial) roughly in the centre of

Fig 1. Location of Holmhills Wood Community Park

General location



Local street map



Access points for park

the current wooded area adjoining Langlea Road, otherwise the entire site is open ground actively managed as agricultural fields.
The defunct hedges east and west of the central sports pitch appear as hedgerows on aerial photographs c 1950 and match field boundaries on the 19th century maps, suggesting a continuity of at least 150 years.
In 18th, 19th and early part of 20th centuries coal mines were worked in many parts of Cambuslang but no pit workings were found within the Park's area on the historical maps that were studied. It is probable that abandoned mines lie beneath the surface and will have some lasting influence on the stability and drainage of the land.
Aside from the impact of mining the inherent poorly drained soil would have limited the scope and profitability of farming, and in 1960s agriculture ceased as the development of the Whitlawburn housing scheme progressed. Subsequently the area remained undeveloped but provided convenient pedestrian routes to access local commerce, transport, schools, and for informal leisure and recreation. Despite problems of vandalism and fly-tipping a generally low level of disturbance enabled some rich habitats to develop in the Park.
Fortuitously during the period 1960s to 1990s management of urban parkland has undergone a major transformation with predominantly artificial landscaping declining in favour of an informal more natural style. At the 1992 Rio Earth Summit the goal of sustainable development gained international acceptance and subsequently implementing land management practices that furthered the conservation of biodiversity became an obligation for local planning authorities in the UK. Against this background South Lanarkshire Council embarked on work to create Holmhills Wood Community Park with the objective of benefitting both nature and the local community and completed this project in 2001.
At this time it has not been possible to find details of the development of Holmhills Wood Community Park. The following summary is mainly based on a Scottish Government document relating to South Lanarkshire Council's nomination for an Award for Planning for the project (Scottish Awards for Quality in Planning, 2001) and some further details were gleaned following a brief visit to Central Scotland Green Network (formerly Central Scotland Countryside Trust). Sadly the Park development narrowly missed out on achieving the Award but the quality of the scheme, and South Lanarkshire Council's approach involving a high degree of community participation, were highly praised.
The Award report outlined that South Lanarkshire Council identified the vacant land as a priority site for long term sustainable "green" development and envisaged a "Community Park" with enhanced access to leisure and learning opportunities for local residents especially those in the adjoining area of Social Inclusion Partnership (SIP). Effective engagement with local residents informed the planning proposals and European funding was secured to carry out the landscaping work.
The Award report stated that, in Partnership with Central Scotland Countryside Trust, the following outputs were achieved between 1999 and 2001:

- 17 hectares of derelict land reclaimed
- 3 hectares of woodland planted
- wetlands and ponds created
- 3 kilometres of new paths added
- 4 local newsletters prepared and 13 events held to be held in the Park by end 2001

There are no further details on these works and site plans viewed at Central Scotland Green Network Trust (formerly Central Scotland Countryside Trust) are also superficial. It appears that some earlier woodland planting took place in 1996 (within the current wood near Langlea Road). Between 1999 and 2001 near the ponds two areas of woodland were either added or extended and works on the creation (or upgrading?) of ponds and paths was completed. The large school site now occupies part of a wooded area shown on the landscape development plans but otherwise the present Park layout of woods, ponds and paths is essentially the same as these plans. To date no tree stocking plans or details of any planting in ponds or grassland areas has been found but the predominance of native

trees species aligns with nature conservation objectives. Protective fencing and a high density of planting has helped woodland habitats to develop fairly quickly by dissuading people from entering whilst the accessible ponds including a pond-dipping platform have encouraged exploration. In the intervening years since the landscaping that created the Community Park natural processes of colonisation and succession have occurred and enriched the habitat mosaic and distinguishing between species that were artificially introduced and those that arrived naturally is somewhat arbitrary.

Information on file at Central Scotland Green Network Trust records the appointment of a Community Development Officer for a period of 3 years, and a significant degree of engagement with local groups and people was highlighted. Local groups were evidently involved in planting wildflowers in two meadows in the Park (South Lanarkshire Council Biodiversity Banks Leaflet, 2004) but again detailed records of location and species are lacking.

Nowadays it appears that the Park has surprisingly few visitors despite the large population residing on its doorstep. During sessions of survey work, although many people were observed using the through paths between Whitlawburn and central Cambuslang, it was rare to encounter more than a handful of other people (mostly walking dogs or jogging) in the remoter parts of the Park. It is understood that many local people objected to construction of the new School complex (completed in 2008) and the delayed phase of restoring the sports fields caused further concern and upheaval 2 years later. This may have dented the sense of pride that was generated when the Park's creation was deemed worthy of a national prize but recently there have been more welcome developments that may help to promote the Park and encourage visitors to explore its riches. South Lanarkshire Council recently published a walk leaflet featuring the Park (Routes around Roots Map and Guide, 2011) with the clear objective of encouraging residents to use their local patch to gain health and educational benefits. This year Project 31 has run a varied programme of "Forest School" sessions in the Park, and it is hoped that this will spark a greater appreciation of the site amongst the younger generation.

The recently formed Friends of Holmhills Wood Community Park wish to see increased use of the greenspace for a variety of recreational, educational and health promoting benefits. In 2015 they ran events (litter-pick, pond-dipping & mini-beast hunt, bat watch, health walks) that were well-attended and plan for further promotional initiatives in the future. Above all, they wish to see greater numbers of local people enjoying their Park and fully supportive of actions to promote its sustainability as greenspace.

This Phase 1 Habitat Survey was commissioned to provide a baseline record of the current range and ecological value of habitats in the Park and identify potential threats to these habitats. The survey findings will form a useful source for planning future developments of the Park but it should be recognised that more detailed surveying may be required where ecologically sensitive sites (e.g. woodland, wetland, semi-natural grassland) are involved.

3. Phase 1 Survey Method

This habitat survey followed the standardised Phase 1 Habitat Classification and associated field survey technique published by Joint Nature Conservation Committee (JNCC 2010). The classification of habitats is principally based on vegetation. Areas of vegetation are identified according to the habitat classification and these areas marked on a map using specified colours and sometimes supplementary text codes and marks.

The survey method was designed to cover large areas of countryside relatively rapidly. Where there is a complex mosaic of habitats within a small area, a situation common in urban greenspace, a simplified plan is produced marking principal habitat blocks only. Blocks that include additional microhabitats are referenced on the map and associated supplementary information written as a "Target Note". Target Notes may also include details of background research and observations regarding natural or human influences that could cause significant damage to habitats (e.g. dumping, antisocial behaviour, invasive species, and current management).

Survey work at Holmhills Wood Community Park was carried out during August and September 2015. As this is a poor time of year to assess woodland ground flora (early spring is optimal) there was no attempt to fully assess any of the woodland areas and some parts were barely viewed. Plant identification work concentrated on the 3 ponds in the east of the Park and the surrounding scrub and marshy grassland. It should be noted that some aquatic plants growing in deep water were not studied but it is hoped that an earlier survey conducted by Froglife has evaluated both flora and fauna in the ponds.

On completion of the mapping phase a rough estimate of habitat areas was made using the area measurement application available on Google maps. This not an accurate measurement, but the figures (Table 1) should give a good representation of the relative abundance of habitats within the Park. Such figures may be of value for future planning both within the site, and in the wider area of South Lanarkshire, and may also help to highlight future changes in habitat areas.

At the end of this report (Appendices) there is a list of plants identified during the survey and a very short list of animals observed. Due to the seasonal timing of the survey the variety of higher plants is likely to be underrepresented and it is intended to conduct further surveying of woodland plants in spring 2016. Expert assistance in the identification of lower plants (e.g. mosses, lichens, fungi) and animal groups (especially insects and other invertebrates) would also be helpful to highlight valuable features of the Park.

4. Phase 1 Survey Map and Summary

A range of habitats were found within the small area of Holmhills Wood Community Park notably: grassland, woodland, scrub, and wetland (see Table 1 Habitat Area Analysis and Figure 2 Habitat Map). Grassland is the dominant landscape feature but only a minority, mapped as Neutral Grassland, has a high biodiversity whilst the large expanse of Amenity Grassland has negligible value for wildlife. Woodland habitats cover around a quarter of the Park and although none have semi-natural status the plantations represent valuable habitats providing niches for a variety of species. Scrub has developed in several locations providing additional cover and food sources for wildlife. Some areas of scrub, along with relict hedgerows, provide important sanctuaries for plants and animals within otherwise inhospitable areas of short-turf grassland or where neighbouring heavily disturbed road and path locations. Wetland covers only a small area but the ponds make a major contribution to biodiversity in the Park providing living conditions for a number of specialised freshwater plants and animals.

The habitat map (Figure 2) shows a somewhat simplified distribution of habitats in the Park. In many sites there are differences in vegetation created by minor natural variations in features such as drainage, soil type, degree of shelter and amount of sunlight or artificial influences such as management regimes and disturbance. This detail is not represented on the map but may be described in the associated Target Notes. Figure 3 portrays more information on dominant trees and shrubs in the varied areas of scrub or as trees scattered within other habitats.

Target notes describing individual sites are included as Table 2. The map outlining street names (Fig 1 with Section 2 of this report) may be useful to help locate features described in the Target Notes. Some Target Notes include background information, and survey or management suggestions.

As outlined above (Section 3) habitat measurements, extracted from Google Maps, are very approximate but Table 1 (below) shows relative proportions of habitats at the current time.

A summary evaluation of the broad habitat types follows (Section 5) and in section 6 there is map-based summary of provisional recommendations that follow as a result of this basic Phase1 habitat survey.

Table 1: Habitat Area Analysis

Habitat	**Approx. area (hectares) / length (m)**	**% of site**
Woodland	4.7 ha	26%
Scrub	4.6 ha	26%
Grassland – neutral semi-improved	2.7 ha	15%
Grassland – short-turf recreational & amenity	5.3 ha	29%
Wetland (ponds & swamp)	0.2 ha	1%
Other (tall herb ruderal/Amenity shrub)	0.5 ha	3%
TOTAL	**18 ha**	**100%**
Hedgerow	235 m	n/a

Fig.2 Holmhills Wood Community Park Phase 1 Survey Habitat Map

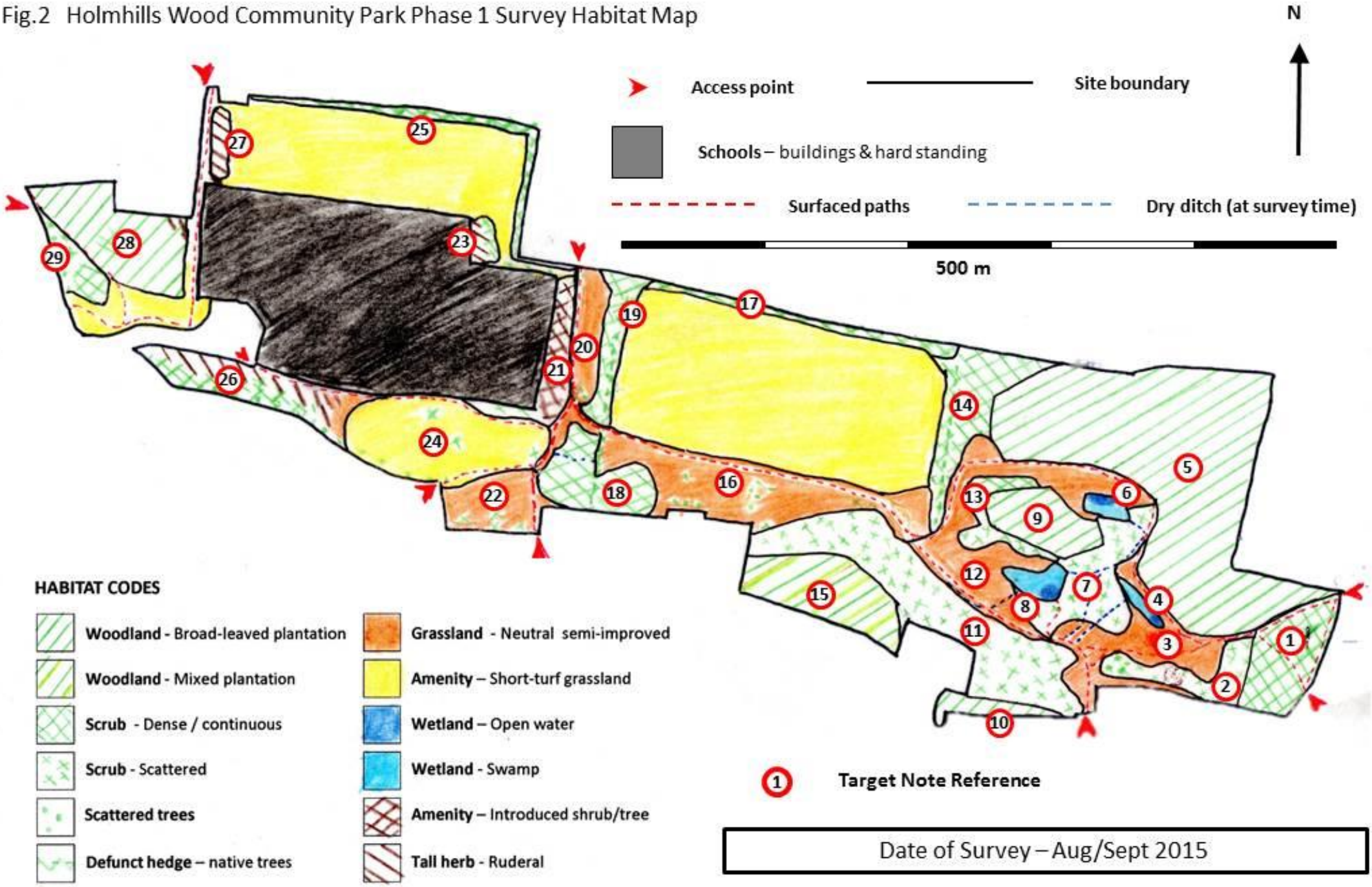
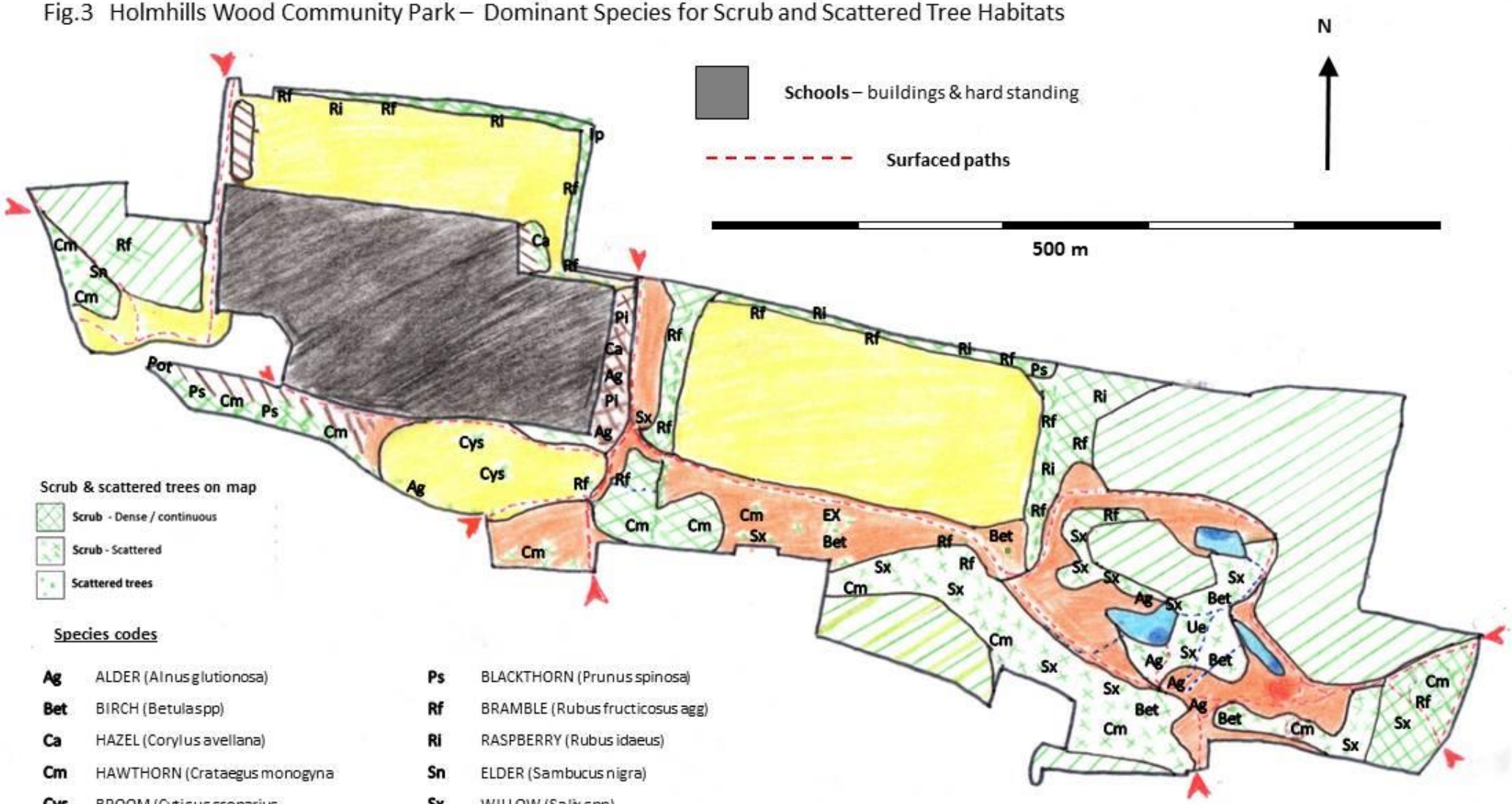


Fig.3 Holmhills Wood Community Park – Dominant Species for Scrub and Scattered Tree Habitats



Species codes

Ag	ALDER (Alnus glutionosa)	**Ps**	BLACKTHORN (Prunus spinosa)
Bet	BIRCH (Betula spp)	**Rf**	BRAMBLE (Rubus fructicosus agg)
Ca	HAZEL (Corylus avellana)	**Ri**	RASPBERRY (Rubus idaeus)
Cm	HAWTHORN (Crataegus monogyna	**Sn**	ELDER (Sambucus nigra)
Cys	BROOM (Cytisus scoparius	**Sx**	WILLOW (Salix spp)
Ip	YELLOW FLAG (Iris pseudacorus	**Ue**	GORSE (Ulex europaeus)
Pi	PINE (Pinus sp)		
Pot	ASPEN (Populus tremula)	**EX**	Exotic shrub potentially invasive

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
1	Scrub near Greenlees Road Eastern section	Surveyed Aug/Sep 2015 Fairly dense scrub of mainly willow (small tree & sapling), hawthorn (range of sizes Inc. saplings), and ash saplings. Some planted lime, birch, alder trees present (not shown on c1950 aerial photos). Large patches of bramble(Rubus fructicosus) and occasional rose(Rosa spp), honeysuckle(Lonicera periclymenum) forming lower woody area. Ground layer nearer to roadside mostly common grasses and herbs tolerant of disturbance: cocksfoot(Dactylis glomerata), Ragwort(Silene jacobaea), creeping thistle(Cirsium arvense), hairy willowherb(Epilobium hirsutum), silverweed(Potentilla anserina). Away from road richer areas include Timothy grass(Phleum pratense), knapweed(Centaurea nigra), common sedge(Carex nigra) and smooth rush(Juncus effusus) – latter 3 indicating damp conditions. A few plants of orchid Epipactis helleborine in west of site near path. Vigorous stand of invasive dotted loosestrife(Lysimachia punctata).
2	Scrub near Greenlees Road Western section	Surveyed Aug/Sep 2015 Sparse scrub of hawthorn and willow with species poor undergrowth of grasses and abundant creeping thistle(Cirsium arvense). Some (old orchard?) trees with full-size apples near Holmhills Grove.
3	Grassland east of ponds	Surveyed Aug/Sep 2015 Varied area of species-rich grassland merging into damp scrub area (TN7) with marshy plants: lady's bedstraw(Galium verum), yellow rattle(Rhinanthus minor). Southern part rank species poor grassland area: cocksfoot(Dactylis glomerata), tufted hair(Deschampsia cespitosa) & timothy grass (Phleum pratense) with hairy willowherb(Epilobium hirsutum), creeping thistle(Cirsium arvense), dock(Rumex spp), ragwort(Silene jacobaea) Beside path divide near Long Pond(TN6) Crocosmia stand (potentially invasive?). Several drainage ditches (dry during survey) cut through site in places choked with garden escape Alchemilla mollis. Most walkers keep to the paths in the area but there are drinks bottles, cans and litter amongst the long grass.
4	Long Pond	Surveyed Aug/Sep 2015 Small pond steeply sloping to around 40cm water depth. Small extent c25% of open water located in eastern part, rest has emergent vegetation dominated by bulrush(Typha latifolia) with branched bur-reed (Sparganium erectum) and spearwort(Ranunculus lingua) in the centre with occasional marsh marigold(Caltha palustris), marsh bedstraw(Galium palustre) water mint(Mentha aquatica) and jointed rush(Juncus articulatus) at the pond edges. Floating plants include pondweed(Potamogeton spp) and duckweed(Lemna spp). Invasive species Canadian pondweed (Elodea canadensis) identified here but not found in other ponds. Though near main pathway there is minimal littering but dogs entering area may have impact on flora and fauna.
5	Big Wood	Surveyed Aug/Sep 2015 Predominantly broadleaved woodland, part recently planted (Central Scotland Countryside Trust in 2001?). Areas of older trees (planted and naturally colonised) mainly in centre and east of site (not shown on c1950 aerial photos). Complex topography including sizable hollows, dips & ditches and

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
		system of plough-lines under recent planting. Some temporary (?) pools following wet periods. Woodland enclosed by fencing but there is a gap in fencing and a path leading to the Forest School site and paths extend beyond running parallel to Grenadier Park and Grenville Drive. Recently planted trees include native species (birch, oak, elm, cherry, alder, hazel, rowan) along with introduced species (pine, larch) densely-spaced in blocks on ploughed ground and longer-established wooded areas have various native and non-native species (willow, poplar, sycamore). Dead standing trees and rotting wood scarce though fallen branches frequent. Shrub layer locally present with hawthorn, holly, privet, ivy, rose, blackthorn and some large impenetrable patches of bramble. Ground vegetation mostly present though sparse in areas, bare patch where Forest School operates and part leaf litter dominated in north western part. Ground cover species abundant variety of grasses and wood avens(Geum urbanum), broad-leaved willowherb(Epilobium montanum) speedwell(Veronica spp), cleavers(Galium aparine) occasional broad-leaved helleborine(Epipactis helleborine), enchanters' nightshade(Circaea lutetiana), male fern(Dryopteris filix mas) , hedge woundwort(Stachys sylvatica), wood anemone (Anemone nemorosa). Exotic/invasive plants include seriously invasive Japanese Knotweed (scheduled for removal), snowberry(Symphoricarpos alba), and garden escape London Pride(Saxifraga x urbium) backing gardens of Grenville Drive. Forest School has clearing with seating formed from tree stumps, a bug hotel under construction. A small number of dog walkers and other visitors visit the wood but less welcome disturbance also evident in the wood (fly-tipping, log-cutting and dumping of garden clippings and grass) Birds observed: robin, wren, dunnock, blue tit, tawny owl. Trees show marks made by deer. The recently planted trees are very densely spaced and, unless thinned, liable to reduce the value of the ground and shrub layer as they mature limiting the structural and species diversity.
6	Shallow pond	Surveyed Aug/Sep 2015 A shallow pond varying in extent and depth according to recent rainfall. Following dry weather during survey period water receded markedly from northern edge revealing a muddy substrate drying to hard clay. Depth of water here only 15cm (approx. 1m from edge) but deeper and permanent water in southern part. Marginal vegetation dominates southern part covering c. 75% of full pond area when not drained down and entire pond during dry periods. Dominant emergent plant common spike rush(Eleocharis palustris) in east and sedges (Carex spp) in west, occasional water plantain(Alisma plantago aquatica) and club rush(Scheonoplectus lacustris) merging into marshy grassland around most of perimeter. Along northern edge there are compacted pathways with a limited range of short growing grasses and herbs including rye grass(Lolium perenne) and clover due in part to changes in water levels and regular trampling by walkers and their dogs regularly entering the pond. Drainage ditch intermittently carrying water in wetter periods located at east of the pond, linking with other ponds.
7	Open scrub in pond area	Surveyed Aug/Sep 2015 Varied area of open scrub on gently sloping ground with local variations in drainage and disturbance influencing plant communities present. High biodiversity of ground flora including a range of marshy and dry grassland species. Rich in insect life. On slope above shallow pond, mainly birch and willow trees (smaller Salix aurita and other larger Salix species around 5m high) with a diverse grassland flora (mainly grasses Dactlyis glomerata, Holcus lanatus, Phleum pratense, Cynosaurus cristatus) along with abundant common knapweed(Centaurea nigra), marsh and field horsetail(Equisetum palustre & E.arvense), rushes (Juncus sp), yellow rattle(Rhinanthus minor), tufted vetch(Vicia cracca) and

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
		yellow vetchling(Lathyrus pratensis) and occasional sedges(Carex spp), meadowsweet(Filipendula ulmaria), lady's bedstraw(Galium verum) and birdsfoot trefoil (Lotus pedunculatus). Higher up the hill there are gorse bushes, providing rich food source through long flowering period and here ground flora is dominated by tussock forming grasses (Schedonorus arundinacea and Deschampsia cespitosa, docks(Rumex sp) and creeping thistles(Cirsium arvense). Alongside the drainage stream (sometimes containing water) near the path scrub with willow, alder, hawthorn and crab apple are present. A small group of the woodland orchid (Epipactis helleborine) grows near the path under this area.
8	Platform pond	Surveyed Aug/Sep 2015 This pond has concrete edges designed to aid pond-dipping in a small section on the south eastern edge. Elsewhere the edges are obscured by marginal vegetation. A depth measurement taken in August around 1m from platform edge showed 35cm depth of water. Less than 25% of the mapped area has open water and this has floating plants including water lilies (Nuphar pumula and Nymphaea alba), pondweed (Potamogeton spp) and duckweed(Lemna spp) along with bogbean(Menyanthes trifoliata) and spearworts(Ranunculus lingua and R.flammula). A variety of tall emergent plants fills the rest of the pond and merges into marshy grassland beyond. Bulrush (Typha latifolia) dominates marginal flora in the northern part with abundant sedges(Carex spp), rushes(Juncus spp), spearworts(Ranunculus lingua and R.flammula) and locally abundant Reed canary grass (Phalaris arundinacea). In the west of the pond sedges(including Carex flacca) dominate the tall emergent flora. Shorter plants present include: water mint(Mentha aquatica), marsh bedstraw(Galium palustre) and water forget me not (Myosotis scorpioides). A clump of flag iris(Iris pseudacorus) grows beside the ditch extending from north eastern edge. Moorhen were observed on many occasions on the open water and hiding amongst the bulrush and heron has been reported by other observers. This pond was surveyed according to OPAL method on 26/09/15 finding the water with pH of 7 (neutral) and water clarity diminished by mud. A variety of pond fauna was identified (common newt, lesser water boatman, water skater, whirligig beetle, damselfly and mayfly larvae) indicating healthy water conditions in addition to more widespread animals with less sensitive tolerances (pond leach, flatworm and midge larva).
9	Pond Wood	Surveyed Aug/Sep 2015 Small wood on gentle slope rising south to north isolated from path network and entirely enclosed by fencing. Parts of the wood not visited due to access difficulties created by dense bramble thickets, rambling roses, deep plough furrows and fallen branches and logs (all features beneficial to woodland fauna). Canopy predominantly composed of birch, hazel, elm, alder, cherry and rowan planted (probably in 2001) on ploughed ground but some older trees are present around the southern fringe (no tree cover on c1950 aerial photo). Well-developed shrub layer potentially valuable for shrub and ground nesting birds, small mammals and deer. Rose, guelder rose and honeysuckle are the main woody species forming low growth in the northern part and dense bramble thicket forms impenetrable areas particularly in the north and east. Vegetation at ground level varies from absent to species-poor where the canopy and bramble areas are very dense. Grasses generally dominate along with abundant wood avens(Geum urbanum) and rare broad leaved helleborine (Epipactis helleborine) with woodland edge plants e.g. broad leaved willowherb(Epilobium montanum), and wood horsetail (Equisetum sylvaticum). The garden escape Cotoneaster is present. A fire site was found in the north eastern corner but otherwise there appears to be minimal levels of disturbance within this woodland, perhaps due to access difficulties.

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
10	Car park Wood	Surveyed Aug/Sep 2015 Planted alder, ash and willow trees bordering car park along Holmhills Grove on steep artificial cliff-like slope – more like group of trees than woodland at present and unlikely to improve significantly due to small extent and high level of disturbance. Limited ground flora dominated by ivy(Hedera helix) but woodland plant wood avens(Geum urbanum) also present.
11	Open scrub from Holmhills Grove Park entrance to north of Holmhills Wood	Surveyed Aug/Sep 2015 Open scrub on steeply sloped ground. Dominant trees willow, hawthorn, birch, gorse, blackthorn and young ash saplings. There is a large apple tree bordering Holmhills wood and honeysuckle(Lonicera periclymenum) and rose growing around trees in some parts. On the ground grasses and abundant rushes (Juncus), yellow vetchling (Lathyrus pratensis), tufted vetch (Vicia cracca) and occasional common sedge(Carex nigra) horsetails (Equisetum arvense and E.Palustrue) and marsh woundwort (Stachys palustris) Beneath the back gardens of Holmhills Terrace there are dumped garden clippings and patches of invasive plants: Cypress trees, Crocosmia, and Dotted Loosestrife. Otherwise the area is relatively undisturbed and provides a level of protection for the northern edge of Holmhills wood (TN15).
12	Grassland western ponds area (westwards from path to Platform Pond continuing beside path to shallow Pond)	Surveyed Aug/Sep 2015 Grassland with sparsely distributed scrub trees (willow, birch, alder, hawthorn, blackthorn) especially attractive colourful area when flowers blooming. Varied plant communities associated with variations in ground conditions. Some drainage ditches present but dry during survey period. Dominant grasses: Dactylis glomerata, Phleum pratense, Schedonorus arundinacea, Deschampsia cespitosa, Holcus lanatus, Agrostis stolonifera with common sedge(Carex nigra) and rushes (Junucus effusus and J. inflexus). Dominant herbs: knapweed(Centaurea nigra), yellow rattle (Rhinanthus minor), ladys bedstraw (Galium verum), red clover(Trifolium pratense), field buttercup(Ranunculus acris), tufted vetch (Vicia cracca), meadow vetchling(Lathyrus pratensis, birds foot trefoil (Lotus peduncularis) and eyebright(Euphrasia officinalis). In dry patch south of platform pond (TN8) common spotted orchid(Dactylorrhiza fuchsia) locally frequent, west of shallow pond(TN6) oxeye daisy(Leucanthemum vulgare), self heal(Prunella vulgaris) and in more disturbed area north east of shallow pond(TN6) creeping thistle(Cirsium arvense) and ragwort(Senecio jacobaea) and nettle(Urtica dioica) are abundant. Michaelmas Daisy abundant near Big Wood(TN5) Near Platform Pond there are drinks bottles, cans and but much of the grassland is scarcely visited by people. Meadow Brown butterfly observed.
13	Scrub beside Pond Wood	Varied area of scrub extending outwards from Pond Wood fence. Open to dense willow, birch and alder to south. Dense thickets of bramble to east and north.
14 & 19	Defunct hedgerow	Surveyed Aug/Sep 2015 Two defunct hedges aligned with field boundaries on 19th century maps and hedgerow on 1944-1950 aerial photo coverage suggesting continuity since 18th/19th century origin. Hedgerow maintenance lapsed many years ago and trees (sycamore, ash, elder, crab apple, hawthorn) grown up into large top-heavy specimens with minimal low-level hedgerow cover. Dense bramble and raspberry extends c1m on both sides and the climbing plant

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
		hedge bindweed (Calystegia sepium) is locally abundant. Tall ruderal grasses and herbs, fireweed (Chamerion angustifolium), nettle (Urtica dioica) thistle (Cirsium arvense) and great willowherb (Epilobium hirsutum) dominate ground cover. Hedge and surrounding scrub provides good degree of shelter and food source for birds and small mammals. Greenfinch, song thrush and blackbird observed.
15	Holmhills Wood	Surveyed Aug/Sep 2015 Long-established mixed conifer & broad-leaved plantation woodland located on steep slope more easily accessed from Holmhills Terrace than from within Park. Historical map analysis indicates planted in late 17th/early 18th century within agricultural landscape but complex topography also suggests landscaping and construction work in the past. Around the upper part there are scattered boulders and lower down a number of artificial elements are present including relict stone constructions (part of ditches and banks) and hedges including perhaps the only yew tree in the Park. In the upper part recent disturbance is prominent with compacted ground and further damaged by vandalism. Canopy mostly composed of large mature trees mostly not native to this part of Scotland (abundant pine, sycamore, horse chestnut, beech) and also native oak and elm. The understorey is largely absent though there are areas of sycamore and ash regeneration, extensive dense bramble patches, occasional gorse bushes and ivy is locally abundant on the trees and covering the ground. Around the northern fringes, willows and large hawthorn trees effectively merge into adjoining scrub habitat and dead standing and rotting wood is present. The wood suffers from heavy disturbance (fly-tipping, trampling, drinking, littering included bottles, fire sites, log-cutting, rope swings) This has particularly affected the ground cover in the upper part near the road, though fly-tipping and log-cutting has even impacted even the more inaccessible lower area to the south. In the most disturbed area bare earth paths and patches are present – elsewhere ground flora is species poor mostly limited to grasses, mosses, male fern (Dryopteris filix mas) along with nettle (Urtica dioica), cleavers(Galium aparine) and chickweed(Stellaria media) indicating disturbance. In the lower part there is a more diverse layered structure with rowan, hawthorn, willow, birch and elder and there are rotting standing and fallen trees. A variety of lichen and fungi species are present on healthy and rotting trees. Large hole (possibly fox den) beside relict ditch/burn in northern part.
16	Grassland south of large Sports pitch	Surveyed Aug/Sep 2015 Tall rank grassland area with sparsely scattered hawthorn and willow trees and rambling rose shrubs. Some dense clumps of birch in places and sycamore and willow border houses at top of slope. Some hawthorn trees of great age with variety of lichens on trunk and branches. Dominant grasses: Dactylis glomerata, Phleum pratense, Holcus lanatus, Schedonorus arundinacea with ferns(Dryopteris spp) herbs: hairy willowherb (Epilobium hirsutum), docks (Rumex spp), hogweed(Heracleum sphondylium) and creeping thistle(Cirsium arvense) with a large patch of toadflax(Linaria vulgaris). In the centre of the area there is a large garden shrub provisionally identified as red osier dogwood (Cornus sericea) and there are patches of Crocosmia – both of which are listed as mildly invasive in the website of GB non-native species secretariat. A roe deer was found resting concealed here whilst carrying out survey work during the daytime.
17	Scrub border backing Grenville Drive	Surveyed Aug/Sep 2015

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
		Dense tall (up to 2m) and wide (c3m) patches of scrub dominated by interspersed patches of bramble (Rubus fructicosus) and raspberry (Rubus idaeus) alongside edge of sports field with abundant rosebay willowherb (Chamerion angustifolium) and thistle(Cirsium arvense). Immediately bordering back gardens there are taller shrubs/trees: eastern part has densely spaced blackthorn, birch, hawthorn and rose(Rosa spp) to west occasional trees (birch, willow, lime, beech apple, elder,holly), ash regeneration locally abundant. Along part of the length bramble has been cut to 1.5m high, garden trees adjacent to this site and garden escapes (e.g. Cotoneaster) present on Park side.
18	Scrub near Whitlawburn Ave/Holmhills Rd Access	Surveyed Aug/Sep 2015 Varied area of scrub not fully surveyed as very difficult to access (dense thorny bushes potentially obscuring drainage ditch or pond). Hawthorn is dense to scattered on higher ground, bramble thickets dominate on lower ground. Includes large old hawthorn trees that were formerly part of the agricultural hedge(TN19) that extends northwards. Tall herbs amongst woody species: grasses, thistle (Cirsium arvense), rosebay willowherb(Chamerion angustifolium) and great willowherb(Epilobium hirsutum) abundant. Large stand of lady fern(Athyrium filix-femina) in hollow. Site should be re-surveyed early next year prior to growth of vegetation to complete coverage.
19	Defunct hedgerow & scrub	Surveyed Aug/Sep 2015 See TN14 above
20	Grassland along path from Westcoats Rd access	Surveyed Aug/Sep 2015 Rank grassland with large coverage by common ruderal species: cocksfoot(Dactylis glomerata), thistle(Cirsium arvense), rosebay willowherb (Chamerion angustifolium).
21	Amenity scrub along path from Westcoats Road	Surveyed Aug/Sep 2015 Planted shrubs/trees < 5m (pine, guelder rose, hazel, alder) on substrate of compacted clay and gravel bordering school surfaced sports pitch. Assumed these trees/shrubs were planted to provide screening but other trees and shrubs (willow, hawthorn, broom and rose) apparently colonised open spaces in the site. Ephemeral/short perennial plants form ground cover with grass species and abundant creeping buttercup(Ranunculus repens), clover (Trifolium spp), red bartsia (Odontites verna), dandelion(Taraxacum officinale), silverweed(Potentilla anserine) and coltsfoot(Tussilago farfara). Patches of soft rush (Juncus effusus) and horsetail (Equisetum arvense) and deep waterlogged vehicle tracks indicates moist areas. Litter problem especially near the fence bordering school sports ground.
22	Uncut Grassland by Whitlawburn Rd/Ave access	Surveyed Aug/Sep 2015 Area of uncut grassland on steep north facing slope. Though near to 2 main access paths it is largely unvisited by walkers and has diverse flora including some species apparently not found elsewhere in the Park e.g.: meadow cranesbill(Geranium pratense, purple loosestrife(Lythrum salicaria), devil's bit scabious(Succisa pratensis), sneezewort(Achillea ptarmica) and grass vetchling(Lathyrus nissiola). As grass vetchling is unusual for local area but available from wildflower seed merchants it is very likely this, and possibly other species unique to this area, were planted (possibly as part of South Lanarkshire Biodiversity Banks Community Meadows Project 2003-2004). Recently naturally colonised hawthorn saplings have begun to form scrub in the upper part of the slope.

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
23	Vegetated soil hump east of school	Surveyed Aug/Sep 2015 Scrub and tall ruderal vegetation on hump c 3m high formed from soil dumped during ground works to improve sports field. Hazel, elder, alder and rose form dense tree cover on west slope and top of hump. On western side (beside school) tall herb vegetation covers ground with a mix of grasses and herbs including: tall fescue(Schedonorus arundinacea), Yorkshire fog(Holcus lanatus), perennial rye grass (Lolium perenne), rose bay willowherb(Chamerion angustifolium), nettle(Urtica dioica), creeping thistle(Cirsium arvense), smooth rush(Juncus effusus) and dock(Rumex spp), vetch(Vicia cracca) and red clover(Trifolium pratense) characteristic of wasteground/poorly drained substrate.
24	Amenity grass with broom scrub	Surveyed Aug/Sep 2015 Amenity short-turf grassland on sloping ground with abundant rush(Juncus effusus) indicating poor drainage. Three patches of broom (Cytisus scoparius) are unmanaged and with herbs growing amongst shrubs these form islands of some biodiversity within grassland of negligible interest.
25	Scrub border backing Westcoats Rd and Stewarton Dr	Surveyed Aug/Sep 2015 Wide (c3m) scrub/tall herb border backing onto residential gardens. Variety of native tree species mostly sparsely distributed along length including: birch, willow, oak, cherry, elder, hawthorn(mostly young saplings), hazel, cherry, guelder rose. Dense interspersed tall patches of bramble(Rubus fructicosus) and raspberry(R.idaeus) dominate large stretches of the length of the border between the trees. Exotic conifers, cotoneaster and snowberry are found alongside the back gardens of Westcoats Road and garden cuttings and grass mowing are found here in places. Beneath the trees/shrubs tall herb vegetation with grasses and soft rush (Juncus effusus) many ruderal herb species such as rose bay willowherb(Chamerion angustifolia), creeping thistle(Cirsium arvense), nettle(Urtica dioica), dock(Rumex spp), bindweed(Calystegia sepium), cleavers(Galium aparine) and ribwort plantain(Plantago lanceolata) and locally abundant ground elder(Aegopodium podagraria). In the corner where Stewarton Drive and Westcoats Road meet there is a distinct large patch of yellow flag(Iris pseudacorus) with other native tall herbs along with garden escapes: Crocosmia and golden rod (Solidago sp). Variety of plant species in this area adds to the biodiversity of this linear boundary habitat.
26	Steep slope bordering school access road	Surveyed Aug/Sep 2015 Steep slope probably created during landscaping and drainage works for building of former site of Cathkin High School and further modified during construction of new houses, replacement school and associated access road. At the top of slope there is a row of tall poplar trees that were planted before the creation of the Community Park marking grounds of the old school site. Scrub mainly of hawthorn and blackthorn with a patch of aspen at the eastern edge extends to around half way down the slope. Bramble(Rubus fructicosus) and broom(Cytisus scoparius) are also present, and grasses dominate the understorey of the upper part of the slope. The lower part of the slope has tall herb vegetation dominated by waste ground species including grasses and herbs: creeping thistle(Cirsium arvense), dock(Rumex spp), creeping buttercup(Ranunculus repens), vetch(Vicia cracca), coltsfoot(Tussilago farfara), rosebay willowherb and great willowherb(Epilobium hirsutum), occasional hogweed(Heracleum sphondylium) and goats-beard (Tragopogon pratensis). The eastern side adjoining the cut field has a rank grassland vegetation with large abundance of soft rush (Juncus effusus), dock(Rumex spp)and rosebay willowherb(Epilobium angustifolium) dominant along with early coloniser grass species.

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
27	Vegetated soil hump east of school	Surveyed Aug/Sep 2015 Tall herb vegetation covering long low (c1m high) hump formed from waste soil following improvement of sports field. Plants characteristically ruderal species including substantial coverage by creeping buttercup(Ranunculus repens), around 50% grasses(Holcus lanatus and Schedonorus arundinacea) , abundant dock(Rumex spp), creeping thistle(Cirsium arvense), greater plantain(Plantago major) and rosebay willowherb(Chamerion angustifolium) and edging the sports field perennial rye grass(Lolium perenne) and clover(Trifolium spp). To the west of the access path (bordering houses in Langlea Drive) beyond grass that is regularly cut there is a strip of grass-dominated vegetation and opposite the schools car park backing onto properties in Langlea Grove there is a large patch of rosebay willowherb (Epilobium angustifolium).
28	Langlea Road wood	Surveyed Aug/Sep 2015 Woodland including some diversity in age stages of trees (from sapling to semi-mature) and lateral structure (glades and water-filled furrows). National Library of Scotland georeferenced map website shows the site has complex recent land-use: extensive farm buildings from before 1870 (then with orchard/garden areas), an industrial site with storage buildings, chimney and linked access roads and a small coverage by trees in the site's centre on early aerial photo coverage (c1947). Additionally, Central Scotland Greenspace Trust records suggest that trees were planted here in 1996 and thus pre-dated main works to create Community Park in 2001. Currently the wood is mostly unfenced but a hawthorn hedge marks the boundary with Langlea Grove. Recent planting is in the southern part where straight-stemmed young trees are closely grouped following plough lines. Planted tree species include: oak, birch, rowan, hazel and cherry. Plough furrows are wide and deep, some containing standing water that appears persistent, and may provide microhabitats for aquatic species. Ground cover is varied throughout including some patches devoid of vegetation, others with deep layers of leaf litter, vegetation confined to mosses and large patches covered by bramble. Areas with diverse ground flora also found in the southern section, with grasses, wood avens (Geum rivale), broad leaved willowherb(Epilobium montanum) and occasional nationally uncommon orchid broad leaved helleborine (Epipactis helleborine) is present. In the centre (matching 1944-1950 aerial photo cover) and near the eastern and north-eastern boundaries, large semi-mature multi-stemmed willow trees, ash, sycamore, elm and cherry trees are present and there are grouped conifer species near the houses. In the north west of the site (alongside Langlea Grove) dense woodland with willow, elder, ash, holly and hawthorn and patches of bramble has probably developed naturally from scrub. Understorey tree and shrub cover is present in places comprising elder, hawthorn, elder, rowan and also sycamore and ash saplings. Large patches of bramble also present under trees and in open areas without trees. Outside of bramble areas, grasses, ferns (Dryopteris spp), wood avens (Geum rivale), cow parsley (Anthriscus sylvestris), broad leaved willowherb(Epilobium montanum) and herb Robert(Geranium robertianum) are frequent but ground elder(Aegopodium podagraria) dominates much of the ground cover. In the areas clear of a tree canopy brambles cover large patches but elsewhere ruderal herb vegetation including rose bay willowherb(Chamerion angustifolium), great willowherb(Epilobium hirsutum), cleavers(Galium aparine), creeping buttercup(Ranunculus repens), nettle(Urtica dioica) and hairy tare(Vicia hirsute) enhance biodiversity of the woodland. Leaf litter, fallen branches, rotting wood on ground are very important features for biodiversity. Fungi (bracket and several ground cover varieties) lichens and a variety of invertebrates were observed in this site but species were not identified during this survey. During visits a number of bird species were observed or heard (robin, dunnock, wren, blue tit great tit, goldfinch and chaffinch). Particularly near to the access paths severe disturbance is evident. There are trampled paths throughout and some sites of fires and evidence of wood-cutting. There have been litter picks in the wood but large waste items remain, and numerous bottles, drinks cans and food packaging present.

Table 2 Holmhills Wood Community Park Phase 1 Habitat Survey TARGET NOTES

No	Location	Target Note
		It is evident that school children use the wood on a regular basis but their littering, cigarette smoking and other careless damage is much less frequent further away from paved paths.
29	Langlea Road scrub	Surveyed Aug/Sep 2015 Dense area of hawthorn, blackthorn, elder scrub, partially (northern part) heavily thinned in 2015. Recent work has pruned hawthorn trees leaving open scrub/short herb vegetation almost entirely dominated by ground elder(Aegopodium podagraria). Preparation of ground (removal of ground elder and rotavation) is scheduled prior to spring bulb and wildflower planting. The southern part (beyond a stone marking old farm) has very dense scrub cover with ruderal tall herb ground cover and a line of planted semi-mature conifers and sycamore is aligned with Langlea Road.

5. Habitat Evaluation

5.1. Woodland

There are around 4.7 hectares of woodland in Holmhills Wood Community Park in 5 areas as follows:

Table 3 Woodland sites in Holmhills Wood Community Park

	Name allocated	Approx. area	Target Note Ref
1	Big Wood	2.7	5
2	Pond Wood	0.4	9
3	Car Park Tree planting	<0.1	10
4	Holmhills Woods (named as such on OS maps)	0.8	15
5	Langlea Road Wood	0.8	28
		4.7	

Nature conservationists recognise that ancient semi-natural woods represent irreplaceable fragments of the dominant natural vegetation of lowland Britain and provide vital refuges for hundreds of species that evolved in natural woodland. Considering their importance Scottish Natural Heritage (SNH) maintains the Scottish Ancient Woodland Inventory which provisionally identified ancient woods across Scotland based on examination of selected historical and current maps. Using the same historical map sources it is evident that there are no Ancient Woods within the Park but Holmhills Wood, located on the southern boundary, is classed as Long-Established Woodland of Plantation Origin using the SNH terminology and has provided a continuity of woodland for a long period.

Over the last 200 years Holmhills Wood has provided a refuge for woodland flora and fauna whilst isolated within open agricultural fields, and latterly by urban land. However, the tree canopy is now even-aged in much of the site with poor development of an understorey and there is a high component of non-native trees (pine, sycamore, beech, horse chestnut) both factors reducing biodiversity. Furthermore a range of human activities (trampling, fly-tipping, garden waste dumping, littering, log-cutting, fire lighting, antisocial drinking etc., also a rope swing) are all deleterious to the wildlife value. However, some parts have a more complex structure representing richer woodland habitat and dead standing trees, fallen trees and rotting logs are likely to support a wide range of fungi, lichen and invertebrate species.

Management practices and disturbance also have a major impact on the biodiversity of the woodland of more recent origin. The current survey found that varied pockets of older woodland patches remain amongst dense young woodland blocks (presumed planted during 1996-2001) and native and other broadleaved tree species are abundant throughout the woods. These features have promoted the development of some structural variation providing a diversity of ecological niches to suit a variety of flora and fauna species characteristic of semi-natural woods. The close-spacing of the recently planted trees (along with fencing) earlier benefitted woodland development by keeping people away but in future years further closing of the canopy would inhibit the extent and variety of ground cover and natural regeneration as light penetration is reduced. At this stage opening out the canopy, by selectively thinning some young planted trees, is an essential action to improve biodiversity.

The variety of trees, shrubs and herbaceous plants found in woods has made a substantial contribution to the plant list included with this report and many plants are likely to have been missed due to the survey timing. There is an impressive range of tree species with a good number that are native to the local area (e.g. oak, ash, elm, alder, cherry, hazel, birch and several willow species) and many trees and shrubs with fruits and berries valued as food sources by a range of birds. The current survey also identified a few ground flora species that are regarded as woodland specialists (enchanters' nightshade, broad-leaved helleborine and wood avens) within the recent plantations and relatively low levels of exotic invasive plants overall though a small number of highly invasive Japanese

Knotweed plants were found in one location. Immediately following discovery of these plants they were carefully removed and destroyed and any future occurrence will be similarly dealt with to minimise the opportunity that it will establish and displace more valuable native species.

During survey visits a variety of birds were identified and recorded but there was no attempt to carry out a detailed bird survey. Subjectively, the woodland near Langlea Road seemed to have the richest birdlife with robin, wren, blue tit, great tit, goldfinch and chaffinch observed during brief survey visits. Perhaps this is related to the complexity of woodland structure with open glades, bramble thickets, hawthorn, rose and other fruiting shrubs and trees providing shelter and food. Since birds are relatively easy animals to study it would be worthwhile to survey birdlife further, concentrating on the woodland and scrub areas, and regularly revisit these surveys to help identify and highlight areas of special interest and those that are degrading or could be improved by management.

Target Notes describing each woodland site show that each of these woods presents a different character and show considerable internal variation, an illustration of the complexity and diversity of woodland habitats.

The limited investigation carried out during this survey has indicated that despite the recent origin, and high level of disturbance, all woodland areas are of high ecological importance and educational interest. Friends of Holmhills Woodland Community Park and Project 31 have already begun to take action towards improving the woodland biodiversity by artificially introducing elements that are naturally present in ancient woods. In Big Wood some "homes for nature" have been provided including a Bug Hotel (a stack of pallets with a variety of nesting niches designed to suit a variety of invertebrates), bat and bird nesting boxes and rotting logs for fungi, insects and other life forms inhabiting decomposing wood.

A member of Friends of Holmhills Woodland Community Park has completed a preliminary tree survey in August 2015 and further biological survey work is planned for spring 2016 when ground flora is best assessed. Further assessments of tree health, lower plants, invertebrates and birds would also be helpful to help identify sensitive areas and potentially damaging impacts due to benign usage (dog walking, exploring and learning e.g. forest school) and malicious threats (mainly vandalism, fly-tipping, wood-cutting, garden waste tipping). Such information will all help towards developing plans to conserve and improve the woodland as a wildlife habitat and a wonderful educational resource.

5.2. Scrub

Scrub vegetation, characterised by scattered groups or dense clumps of low-growing woody species, is found in several areas throughout the Park with an estimated total area of around 4.6 hectares. On the ground the distinction between dense or open scrub and grassland is not clear cut and the mapped areas are somewhat arbitrary, and area assessment subject to a greater degree of error than for other habitats.

Dominant scrub species (hawthorn, willow, birch and blackthorn) are all fast growing and those with thorns or spines gain protection from herbivores, or trampling by people. Newly colonised scrub can quickly develop a structure that provides a degree of shelter, shade and food that supports elements of woodland ground flora, a diversity of herbivorous insects (many associated with a particular plant genus or species) and a range of bird species. In suitable conditions scrub may eventually progress, by natural succession, to become woodland but some types of scrub instead form dense thickets where the growth of ground flora and indeed other shrubs and trees may be suppressed.

The habitat survey identified an especially rich area of open scrub between the ponds (TN 7). Isolated from paths the area is minimally disturbed by people, and the diversity of both tree cover along with highly variable ground conditions (marshy, dry, shaded, sunny etc.) support a range of plant communities. A variety of insects were observed in the area but identification was not attempted due to lack of expertise. It would be advisable to seek assistance in identification of insects and research habitat requirements of those present, and others that could be attracted, to help maintain and

improve insect diversity. However, in general terms it is likely there will be a need to control tree growth in some places to retain open scrub and reduce the threat that tree growth may gradually dry out the nearby ponds. Because of the high wildlife value of this site this is an area where increased visitor pressure should probably be discouraged and very careful consideration given prior to carrying out any practical management task.

Scrub near the Greenlees Road (TN1) and Langlea Road (TN29) entrances has developed under conditions of high disturbance, from road traffic and visitors, and yet the site includes a diverse range of trees (willow, hawthorn, rose) and interesting ground flora including woodland species. Just metres from busy roads the sites also provide valuable cover and food for birds, and small mammals. The resilience and accessibility of these sites could be utilised to further community interest. Recently Friends of Holmhills Wood Community Park arranged for a section of scrub beside Langlea Road to be cut back and cleared of litter and plans are in hand to plant bulbs and wildflowers (obtained by Cambuslang Community Council through Pride of Place grant funding). Although the bulbs are not native, and therefore will not benefit biodiversity, a colourful floral display in spring will help to encourage visitors (perhaps even those who may still wish for decorative formal planting) to explore their Park. Friends of Holmhills Wood Community Park have also created and installed attractive hand-made wooden signage here and are producing tree labels with QR coding to allow visitors to obtain additional information online. Provision of information on wildflowers throughout the seasons (e.g. via website, leaflets or noticeboards, guided walks) could perhaps be a future project focussing near these entrance points.

In several places large patches of dense bramble and raspberry thickets are present (e.g. TN 13, 14,17,18,19 &25). These thickets may inhibit development of ground flora (including tree regeneration) but they are important as food sources for birds and small mammals (people too) and provide essential cover and shelter for a wide range of animals especially where bordering inhospitable sports pitches and paths in the busy western part of the Park. The bramble and raspberry thickets TN13 and TN14 could further benefit biodiversity in the Park by forming a protective buffer around the adjoining woodland habitats TN5 and TN9. The varied area of open scrub TN11 similarly provides a protective barrier for Holmhills Wood (TN15) and eventually as the willow scrub develops it may effectively extend the current area of Holmhills Wood.

Overall the sites of scrub in the Park play an important role in supporting a high biodiversity but the transitory nature of scrub means that a cycle of regular monitoring and sensitive management is essential towards maintaining ecological value. Probably the easiest means of checking health of this habitat is achieved by surveying birds and this audit method has the added benefit of providing a point of interest for members of the public.

5.3. Grassland

Grassland is the dominant vegetation in the Park covering around 8 hectares in total but around two-thirds (5.3 hectares) is classed as Amenity Grassland representing a vegetation with negligible value for wildlife. The intensive upkeep required for the grass sports pitches, and further short-turf areas beside the school, severely restricts flora to a few tolerant species and consequently diversity of insects and other animals is limited. However, rushes (Juncus spp) and sedges (e.g. Carex nigra) grow abundantly in many places where ground is waterlogged and bushes of broom (Cytisus scoparius) with tall herb undergrowth have been retained within the mowed area near the school (TN 24) adding some wildlife interest to otherwise inhospitable areas. In the future perhaps the management of site TN 24 could be further relaxed in order to promote a more interesting species rich flora and fauna.

Additional uninteresting areas of short-turf grassland are necessarily maintained alongside surfaced paths but beyond these narrow verges there are large stretches of unmanaged grassland. Classed as neutral (relating to soil type) semi-improved grassland these sites cover around 2.7 hectares with colourful flowers in summer and a wide diversity of insects (including butterflies and bees), other

invertebrates (spiders, worms, millipedes), birds, mammals and reptiles likely to find homes. The area around the ponds (within TN3 & TN12) has a particularly wide diversity of plants including both marshy and dry grassland species many of which have become much scarcer due to intensification of pasture management. Parts of sites in the south of the Park (TN 16 & TN 22) also have high value species-rich compositions. Areas of grassland near to the main paths (particularly in southern part of TN3, TN16 TN20 and TN26) were of much lower interest with plant compositions typically less diverse and a greater abundance of wayside and waste ground species. However, since many of the dominant ruderal plants (nettle, dock, thistle, buttercup, clover, plantain, cocksfoot grass) found here are known to support a great number of insects and birds these sites are vastly richer than uniform short-turf grassland and changes to management programmes could readily increase their wildlife value.

Survey work did not involve investigating fauna but a variety of insects (butterflies, bees, beetles) were observed utilising the rich grassland areas. A roe deer was found hiding out for the daytime within tall grassland (TN 16) surprisingly only around 10 metres from the busy path indicating that the urban setting does not preclude survival of larger mammal species. Deer and other mammals will have an impact on the biodiversity of the Park, whilst potentially damaging to woodland regeneration their grazing activities could be beneficial for the grassland habitat by controlling spread of scrub.

For the most part the plant communities of the semi-natural grassland have developed through natural processes of colonisation and competition but planting may have artificially augmented the flora. There is mention of 2 locations of community wildflower planting at Holmhills Wood as part of South Lanarkshire Biodiversity Action Plan (South Lanarkshire Council Biodiversity Banks Leaflet, 2004) but it has not been possible to trace further information on planted species or locations. The survey identified some plants (Geranium pratense, Lythrum salicaria, Lathyrus nissiola) uniquely found near the Whitlawburn Road access point (TN 22) perhaps suggesting this was one of the planting locations.

Whilst rough grassland is very attractive in flower a view seems to persist amongst the public that it is untidy and attracts littering and fire-lighting. It might be worthwhile to provide information about the rich biodiversity of grasslands (via website, leaflets, noticeboards, guided walks) and perhaps invite visitors for a closer look via meandering pathways or offer opportunities for practical management projects.

It is recommended that detailed and regular monitoring of plant species (and if possible insect species) is established to gain better understanding of current biodiversity and identify best management options. Further wildflower planting may offer popular community events but other forms of management would probably have a far better impact on biodiversity. According to Buglife—The Invertebrate Conservation Trust (Buglife 2011) management practices that mimic the effects of controlled grazing schemes and create variations in the sward structure are essential for many species of insects and other invertebrates. Fairly simple regimes of cutting grassland patches to varied heights at different times of year, and importantly removing cut grass to maintain soil fertility, could have quick and major benefits for both floral and faunal diversity. Furthermore, this form of management could be achieved and/or monitored by members of the local community and their involvement could contribute to promoting appreciation of rough grassland in the Park and elsewhere.

5.4. Wetland

Although wetland covers only a small area in the Park (0.2 hectares 1%) the surveyed ponds were found to have a rich assemblage of plants and animals associated with a freshwater habitat. Recently in the UK many ponds have been destroyed by urbanisation and intensification of agriculture and further ponds have been damaged by pollution. However, wildlife-friendly artificial ponds provide an essential lifeline for native aquatic plants and animals, and the Holmhills ponds also offer superb educational opportunities for the community.
During the survey 3 ponds located in the east of the Park were studied. There may be other, though perhaps seasonal, freshwater ponds and ditches (in woodland, grassland and scrub areas) but these areas were not considered in the Phase 1 habitat survey. Earlier this year Froglife surveyed the pond(s) and it is understood that their findings will soon be made available, and they will undertake management work to improve biodiversity during the winter period.

For convenience in this survey the 3 ponds are named as follows:
Table 4: Ponds in Holmhills Wood Community Park

	Name allocated	Approx. area (ha)	Target Note Ref
1	Long Pond	<0.1	4
2	Shallow Pond	<0.1	6
3	Platform Pond (part concrete pond-dipping edge)	0.1	8
		c.0.2	

Although these ponds are spatially close it was found that there are many differences in the floral compositions of each pond. It is probable that faunal differences will also exist but this was not investigated during the current survey.
It is assumed that these 3 ponds were all created around 2000-2001 prior to the establishment of the Community Park. Records at Central Scotland Greenspace Network Trust show that the pond-dipping platform was an important design feature – it was upgraded from a wooden structure to concrete and the surfaced path leading to the platform was also specified. Unfortunately, no information on planting schemes has been found but it seems likely that some of the diverse range of emergent and floating plant species (e.g. waterlilies) originated through planting. It is also unclear if ponds had previously existed due to poor drainage and could then have provided sources for colonisation of the present ponds. Examination of the current Google Early image shows considerably larger expanses of open water were present fairly recently and evidently marginal swamp vegetation has spread rapidly in all ponds presently covering around ¾ of their area.

There are differences in the construction of the 3 ponds and this may partly explain observed botanical differences. Shallow pond (TN 6) has a gentle gradient and short depth so that water level varies markedly and the northern side of the pond is intermittently exposed above water creating difficult conditions for aquatic and emergent flora. The gently sloped sides attract dogs wading through causing further damage to vegetation. Common spike rush (Eleocharis palustris) which co-dominates the extensive southern marginal vegetation along with sedges (Carex spp) appears to be absent from both other ponds as is spiked club rush (Schoenoplectus lacustris). Long pond is deeper with bulrush (Typha latifolia) vastly exceeding coverage by sedges (Carex spp) and its banks appear to be the only site for marsh marigold (Caltha palustris) in the Park. Amongst a rich variety of floating plants non-native Canadian pondweed (Elodea canadensis) was found uniquely in this pond although it is regarded as an invasive species prone to rapid spreading. Platform Pond, the largest and deepest of the ponds, has the most varied range of plants with bogbean (Menyanthes trifolia), white and least water-lilies (Nymphaea alba and Nuphar pumula) and reed canary grass (Phalaris arundinacea) apparently unique

to this pond. Tall marginal vegetation in the north of Platform Pond is particularly vigorous and appears to be a good nesting site for birds. During survey visits moorhen adults and juveniles were seen regularly here, and herons have been reported by other visitors.

In September 2015 members of Friends of Holmhills Woodland Community Park completed an OPAL (Open Air Laboratory) survey of Platform Pond. They found that the water is pH neutral and mesotrophic and identified large numbers of common newts and a variety of aquatic insects and insect larvae (lesser water boatman, mayfly and damselfly larvae) indicating that water quality is good. It would be sensible to repeat this quick survey in both Platform Pond and the other ponds to provide additional information on the status of the ponds. School, and other groups, could easily co-operate with this monitoring whilst also gaining educational experience.

It is anticipated that Froglife's practical management will carefully clear a portion of vegetation. Keeping areas of open water is vital to maintain a diversity of plants and animals and ultimately prevent the pond from drying out. Introducing a programme of annual clearing of small portions of vegetation, in consultation with Froglife and other relevant bodies, would probably be an appropriate recommendation for future years.

5.5. Other habitats

This heading covers areas of vegetation that are commonly found in urban areas and marked as Amenity Shrub or Tall Herb on the habitat map. The sites account for only around 0.6 hectares as follows:

TN 21	Strip of planted and naturally colonised short trees/shrubs presumed designed as screening for the school classed as "Amenity Shrub" in phase 1 Survey.
TN 23 & TN27	Two artificial humps near grass sports pitch by school – tall herb with scrub
TN 26 (part)	Tall herb vegetation on the lower part of steep slope beside the school

It is difficult to classify area TN 21 under the Phase 1 habitat survey. Essentially, it appears to be the site of a tree planting scheme to form a screening barrier between the school and main path and was therefore classed as Amenity Shrub. However, mixed with planted trees (pine, alder, guelder rose) there is young growth of willow, hawthorn, broom and rose that may have colonised naturally. Although the site probably suffers too much disturbance to become a rich wildlife site, insects and birds may find cover and food.

It is assumed that the two vegetated humps (TN 23 & TN 27) were formerly bare soil heaps left over following construction of the sports field and vegetated through natural processes. Today they are unattractive sites and if they were to be removed for landscape improvement reasons biodiversity of the Park would not be affected to any great extent.

All of these sites, and also the tall herb vegetation on the artificially formed steep slope by the school (TN 26), support largely common wayside and waste ground herbaceous plants (including thistle, dock, cocksfoot grass, buttercup, clover, plantain). Such herbaceous plants do support a wide range of insects, other invertebrates and birds and therefore provide some value for wildlife. Where scrub is also present (TN22, TN26 and TN27) there are additional homes for wildlife and further natural spread of tree cover (most likely in TN26) will boost biodiversity further.

In view of the small area, and issues relating to land use, it is advisable to set aside consideration of improving biodiversity of these sites and instead concentrate efforts on richer habitats.

5.6. Hedgerows

There are two defunct hedgerows (approximate total length 250m) easily identifiable amongst bramble scrub in the central open area of the Park (TN 13, TN 17 & TN 18) and an additional more intact short hawthorn hedge beside Langlea Grove bordering the edge of woodland (TN28).
Hedges matching the long defunct hedges show on early aerial photograph coverage (1944-50) and similarly placed field boundaries are depicted on 19th century Ordnance Survey maps, suggesting these hedges may have a history of around 200 years. Since the cessation of farming the lack of maintenance has degraded the integrity of the hedge and the trees are much overgrown and top heavy with scrub colonisation (mainly bramble and raspberry) extending woody vegetation outwards from the hedge lines. Hawthorn is the dominant tree species along with sycamore, elder and ash and a very fine specimen of crab apple is present in the eastern hedge. Native tree species (all those listed except sycamore) have a large number of specific insect associations and fruits of hawthorn, elder and crab apple provide food sources much exploited by birds and small mammals. However, a well-managed hedge would have a greater structural diversity with higher biodiversity and more cover for nesting birds. Restoring the defunct hedges, by planting up gaps and reintroducing traditional hedge cutting techniques is urgently required to avoid further degradation and potential loss of this valuable habitat. The short hedge beside Langlea Grove may be less important as a wildlife refuge as it borders woodland but its dense thorny structure will afford some protection from human disturbance for Langlea Wood (TN5) and continuation of hedge cutting is therefore recommended.

6. Recommendations

Section 5 of this report included some suggestions towards improving biodiversity of specific habitats in the Park. Table 5 following (and linked map, Figure.4) provides a brief outline of these and other recommendations, which occurred to me to during the process of compiling this report. The recommendations are provisional only and, except for the final item, are not listed by order of importance or priority. The final item in the table applies to areas for which landscaping improvement is of main concern and enriching biodiversity is of secondary importance.

Friends of Holmhills Wood Community Park recognise that it is vital that members of the local community are engaged to secure the future of their Park. Fortunately management for nature conservation can be achieved without compromising community access and in many cases can offer additional recreational, educational and health benefits for people. Ways to involve local volunteers and other potential visitor benefits are considered alongside each recommendation for improving habitats.

Fig. 4 Map showing locations for listed recommendations

Table 5 Recommendations to Improve Biodiversity

No	Site	Main habitat(s)	Recommendation	Main Benefits
1	Entire Park	All	Bird Survey	Relatively easy means to evaluate habitats. Repeated survey useful for monitoring. Involving visitors (in full surveys or inviting observations) and publicising findings, could stimulate interest within local community.
2	Entire Park	All	Survey of mammals & vertebrates other than birds	Checking effectiveness of new bat boxes and understanding status and impact of deer on vegetation. Identification of other mammals, reptiles, amphibians, fish, invertebrates may locate locally rare/at risk species and influence future management practices. Some survey methods (e.g. bat walk) can involve members of public, and findings additionally help to promote Park in local community.
3	Entire Park	All	Invertebrate animal surveys	Specialist survey may identify any locally rare/at risk species and highlight appropriate management actions. More basic surveys involving non-specialists (e.g. OPAL surveys, butterflies, bees) could help engage public.
4	Entire Park	All	Lower Plant survey (fungi, mosses and liverworts, lichens)	Lower plants have crucial role in supporting ecosystems as decomposers and recyclers of nutrients. Survey by specialist to identify species present, and planning management for their conservation, is essential towards improving biodiversity in Park. Surveys by non-specialists (e.g. OPAL air, tree health) could provide additional data and also stimulate interest and understanding of ecology of lower plants.
5	Entire Park	All	Bioblitz survey	Group surveying of whole Park during short time period (1 day) provides enjoyable & educational events with potential to uncover additional species, rich areas and promote understanding of biodiversity.
6	Entire Park	All	Publicise wealth of species, online, through events, notices/leaflets, local press etc.	Promoting local interest in Community Park has good educational and citizenship benefits and helps biodiversity and sustainability of life on earth.
7	Entire Park	All	Monitor invasive species and remove as required	Protects native species and ecosystems. Involving volunteers helps to raise awareness of biodiversity and alerts garden owners to damage caused by dumping garden waste and benefits of wildlife-friendly gardening.
8	Entire Park	All	Monitor and act against vandalism and careless damage	Regular litter-picking, and other actions to repair damage, can make satisfying activities for volunteers whilst reducing threats to wildlife. Cared for environment creates a more welcoming place for visitors that may help deter some further vandalism and minimise unintentional forms of damage.
9	W1 W2 W3	Woodland	Detailed woodland survey e.g. assessment of tree health, structural diversity and evaluations of microhabitats	Essential precursor for planning woodland management schemes to maximise woodland biodiversity and increase recreational/educational value as appropriate for each wood, and sites within each wood. Some survey work suitable for volunteers (e.g. OPAL) and publicising findings helps gain support and understanding of need to actively manage the woods.
10	W1 S1	Woodland Scrub	Complete Tree Trail (in prep)	Large variety of tree species in close proximity to path network makes tree trail an obvious development to help promote interest in Park's wildlife. QR coded tree trail (in prep) offers large amount of updatable information and enhances welcome to Park encouraging visitors to explore and revisit through the year.

Table 5 Recommendations to Improve Biodiversity

No	Site	Main habitat(s)	Recommendation	Main Benefits
11	W1 W2 W3	Woodland	Plan & implement woodland management in each wood in consultation with experts and local people	Practical woodland management is required to help develop features characteristic of semi-natural woodland with improved potential for sustainability by natural regeneration. Where appropriate, some enhancement of visitor access would help to inform and enthuse public. Public consultation must be maintained to gain advanced support for tree felling/ thinning and other major woodland management actions and maximise usage of access and recreational improvements.
12	W1 W2 W3	Woodland	Add homes for wildlife Bat and bird boxes, rotting logs etc.	Artificially provide niches for increased range of species of plants and animals of semi-natural woodland, e.g. rotting logs for plants and creatures that inhabit living in decaying wood. Public of all ages can be involved (Bug hotel already provided made by Forest School) and help educate and promote Park and its less noticeable wildlife.
13	W1 W2 W3	Woodland	Protect especially rich areas from vandalism and human disturbance	Dead-hedging (creating barriers formed of sticks) for example can be effective in deterring vandals and leading other visitors away from areas with sensitive wildlife. Protecting parts from disturbance aids further colonisation by woodland species and maintains a reservoir of sensitive species for wider areas. Persistence with monitoring and mitigating damage would involve a small number of responsible visitors and could help clear vandals from other parts of the Park.
14	W1 W2	Woodland	Increase opportunities for recreation and education in woods	Forest School already successfully introducing challenging learning in Big Wood TN 5. Improving access here (and in Langlea Wood TN28 and possibly also Holmhills Wood TN15) and disseminating suitable educational information (online, noticeboard/leaflet) could help extend appreciation of the importance of woodland in the Park. Activities for children e.g. "Adventure routes", natural play areas etc. could provide additional enjoyable and educational opportunities for families.
15	S1 S2	Scrub	Monitoring spread of tree cover and other vegetation changes in scrub	Understanding nature of spread of all scrub areas essential to help identify where tree growth should be controlled or removed to maintain valuable wildlife features within these dynamic habitats.
16	S1 S2	Scrub	Practical scrub management. Depending on location could involve cutting back tree or shrub cover, or protecting bramble/gorse/broom etc. patches from removal, protecting interesting patches of flora/fauna (rich area by ponds and Iris patch backing Stewarton Drive).	Artificially controlling natural successional changes helps conserve food and shelter for birds etc. and special microhabitats for sensitive plant and animal species. **It may be advisable to limit visitors to sensitive area near ponds. In more resilient areas there is potential to assist biodiversity and improve visual appeal. Clearing sections of bramble may assist woodland edge plants to survive and help these and other plants (e.g. Iris backing Stewarton Drive) to be seen. Tasks could be undertaken by volunteers providing educational and healthy opportunities. Activities help public to understand wildlife value of scrub and discourage opposite but equally damaging tendencies of tidying up and littering.
17	G1 G2	Grassland	Promote appreciation of tall grassland (via online info/ photos notices etc.) and actively encourage	Better appreciation of rich grassland helps visitors to gain more from visits and support the Park's future. Cause of urban wildlife conservation gains through growth of enthusiasm and evidence of caring may lead to reduction in littering and other vandalism.

Table 5 Recommendations to Improve Biodiversity

No	Site	Main habitat(s)	Recommendation	Main Benefits
			observation of flowers and bugs by cutting walking routes	Cutting seasonal winding paths affords closer views of diverse flowers so that visitors can better enjoy observing and photographing species and there are more adventurous walking routes for children and families to explore.
18	G1	Grassland	Introduce low intensity grass-cutting programmes and control scrub growth where necessary to enrich grassland biodiversity	Practical grassland management tasks (e.g. controlling scrub growth, maintaining wildlife-friendly cutting systems) are mostly suitable for members of public providing satisfying activities. Increased structural variation in grass swards can quickly raise floral and faunal biodiversity (especially helpful for insects and invertebrates) by providing complex mosaic of microhabitats. Observing and monitoring biodiversity changes is critical to monitor impacts of management for future planning and the relatively quick changes present interesting ecological learning activities.
19	G2	Grassland Scrub	Reduce intensity of grass-cutting of short-turf amenity grassland – possibly add species by planting	Variety of plants can flower and set seed leading to increased diversity of plants and animals. Allowing controlled shrub growth provides additional wildlife interest. Planting of wildflowers may provide helpful events for local community.
20	P	Ponds	Pond surveys	Specialist assessment of extent and diversity of vegetation and animal life required as a basis for planning management programmes for individual ponds. Simpler exploration of aquatic life (e.g. OPAL) fascinating and educational for all (clear value to school groups) providing useful additional data.
21	P	Ponds	Manage pond vegetation to improve biodiversity	Lack of management would result in loss of aquatic species and eventually loss of open water. Removal of invasive species and carefully planned reduction of over-competitive types helps both floral and faunal diversity and maintains diversity of ecological niches. Some practical work could be undertaken by members of the public, also studying the effects of practical work is an excellent learning activity.
22	H	Hedgerows	Replace gaps with suitable native trees and restore traditional hedge maintenance. Poss. clear some bramble/raspberry	Left alone hedge would become tree line, losing dense and diverse cover of native tree growth nearer ground level. Restoring an effective hedge extends the already long continuity of a living boundary feature that supports a rich community of “woodland edge” plants and animals that have held on over the centuries. Volunteers could be involved in some management activities and gain knowledge, skills and healthy exercise.
23	M	Varied	Primary management objective is landscape improvement but where possible promote native species in schemes	Landscape improvements can incorporate planting or assist natural colonisation of native species and provide homes for wildlife and greater interest for visitors than sterile ornamental planting.

References

Biodiversity Banks Leaflet (South Lanarkshire Council), http://www.southlanarkshire.gov.uk/download/downloads/id/430/biodiversity_banks

Buglife 2011. ,Scottish Invertebrate Habitat Management: Grasslands, Buglife—The Invertebrate Conservation Trust

GB Non native species secretariat, www.nonnativespecies.org/

JNCC (2010) Handbook for Phase 1 habitat survey - a technique for environmental audit (2010) http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf

Morris, J (2015) Preliminary Tree Assessment prepared for Friends of Holmhills Wood Community Park

National library of Scotland Website: Explore georeferenced maps http://maps.nls.uk/geo/explore
Maps viewed: Roy Lowlands 1752-1755
OS Six Inch, 1843-1882
OS Six Inch, 1888-1913
OS 25 Inch, 1892-1905
Land Utilisation Survey, Scotland, 1931-1935
OS Air Photo Mosaics of Scotland, 1944-1950
OS 1:25,000, 1937-1961

OPAL (Open Air Laboratory) www.opalexplorenature.org/surveys

Routes around roots map and guide – Cambuslang and Holmhills Park, (South Lanarkshire Council) www.southlanarkshire.gov.uk/downloads/file/4706/routes_around_cambuslang_and_holmhills_park

Scottish Awards for Quality in Planning 2001, www.gov.scot/Resource/Doc/927/0016638.pdf

Stace, C (2010) New Flora of the British Isles, 3rd ed, Cambridge University Press

Useful websites offering land management guidance

Buglife
Central Scotland Green Network Trust
Forestry Commission
Froglife
Plantlife
RSPB
Scottish Natural Heritage
Scottish Wildlife Trust
Woodland Trust

Holmhills Wood Community Park - Higher Plant List

Type column t=Tree or shrub a=Aquatic or marshland plant

Scientific Name	Common Name	Type	Garden escape
Acer pseudoplatanus	Sycamore	t	
Acer platanoides	Norway maple	t	
Achillea millefolium	Yarrow		
Achillea ptarmica	Sneezewort		
Aegopodium podagraria	Ground elder		
Aesculus hippocastanum	Horse Chestnut	t	
Agropyron repens	Grass, Couch		
Agrostis canina	Grass, Velvet Bent		
Agrostis stolonifera	Grass, Creeping Bent		
Alchemilla mollis	Lady's-Mantle		g
Alisma plantago aquatica	Water Plantain	a	
Alnus glutinosa	Alder	t	
Alnus incana	Grey alder	t	
Anthriscus sylvestris	Cow Parsley		
Arrhenatherum elatius	Grass, False Oat		
Artemisia vulgaris	Mugwort		
Aster novi-belgii	Michaelmas Daisy		
Athyrium fliix femina	Lady fern		
Bellis perennis	Daisy		
Betula pendula	Birch, Silver	t	
Betula pubescens	Birch, Downy	t	
Caltha palustris	Marsh Marigold	a	
Calystegia sepium	Hedge Bindweed		
Cardamine flexuosa	Wavy Bittercress		
Cardamine hirsuta	Hairy Bittercress		
Carex demissa	Sedge, Common Yellow	a	
Carex flacca	Sedge, Glaucous	a	
Carex leporina	Sedge, Oval	a	
Carex nigra	Sedge, Common	a	
Carex rostrata	Sedge, Bottle	a	
Centaurea nigra	Common Knapweed		
Chamerium angustifolium	Rose Bay Willowherb		
Circaea lutetiana	Enchanter's nightshade		
Cirsium arvense	Field Thistle		
Cirsium vulgare	Spear Thistle		
Contoneaster sp	Cotoneaster	t	g
Cornus sericea	Red Osier Dogwood	t	g
Corylys avellana	Hazel	t	
Crataegus monogyna	Hawthorn	t	
Crocosmia x crocosmiiflora	Montbretia		g

Cynosurus cristatus	Grass, Crested Dog's-tail		
Cytisus scoparius	Broom	t	
Dactylis glomerata	Grass, Cock's-foot		
Dactylorrhiza fuchsii	Comon Spotted Orchid		
Deschampsia cespitosa	Grass, Tufted-Hair		
Deschampsia flexuosa	Grass, Wavy-Hair		
Dryopteris austriaca	Broad Buckler Fern		
Dryopteris filix-mas	Male Fern		
Eleocharis palustre	Common Spike Rush	a	
Elodea canadensis	Canadian pondweed		g
Epilobium hirsutum	Great Willowherb	a	
Epilobium montanum	Broad Leaved Willowherb		
Epilobium palustre	Marsh Willowherb	a	
Epilobium tetragonum	Square stemmed willowherb		
Epipactis helleborine	Broad leaved Helleborine		
Equisetum arvense	Common Horsetail		
Equisetum palustre	Marsh Horsetail	a	
Equisetum sylvaticum	Wood Horsetail		
Euphrasia officinale	Eyebright		
Fagus syvatica	Beech	t	
Fallopia japonica	Japanese Knotweed		g
Festuca rubra	Red Fescue		
Filipendula ulmaria	Meadowsweet	a	
Fraxinus excelsior	Ash	t	
Galeopsis tetrahit	Common Hemp-nettle		
Galium aparine	Goosegrass, Cleavers		
Galium palustre	Marsh Bedstraw	a	
Galium verum	Lady's Bedstraw		
Geranium pratense	Meadow Cranesbill		
Geranium robertianum	Herb Robert		
Geum urbanum	Wood Avens, Herb Bennet		
Hedera helix	Ivy		
Heracleum sphondylium	Hogweed		
Hieracium sp	Hawkweed		
Holcus lanatus	Grass, Yorkshire Fog		
Hyacinthoides non-scriptus	Bluebell		
Ilex aquifolium	Holly	t	
Iris pseudacorus	Yellow Flag Iris	a	
Juncus acutiflorus	Rush, Sharp-flowered	a	
Juncus articulatus	Rush, Jointed	a	
Juncus bulbosus	Rush, Bulbous	a	
Juncus effusus	Rush, Soft	a	
Juncus inflexus	Rush, Hard	a	
Larix decidua	Larch	t	
Lathyrus nissolia	Grass vetchling		from seed?

Lathyrus pratensis	Meadow Vetchling		
Lemna sp	Duckweed	a	
Leucanthemum vulgare	Oxeye daisy		
Ligustrum vulgare	Privet	t	
Linaria vulgaris	Toadflax		
Lolium perenne	Grass, Perennial Rye		
Lonicera periclymenum	Honeysuckle	t	
Lotus pedunculatus	Greater Birdsfoot Trefoil	a	
Lysimachia punctata	Dotted Loosestrife		g
Lythrum salicaria	Purple loosestrife		
Malus sylvestris	Crab Apple	t	
Matricaria discoidea	Pineapple Mayweed		
Medicago lupulina	Black Medick		
Mentha aquatica	Water Mint	a	
Menyanthes trifolia	Bogbean	a	
Myosotis scorpioides	Water Forget-Me-Not	a	
Nuphar pumula	Least Water Lily	a	
Nymphaea alba	White Water Lily	a	
Odontites verna	Red Bartsia		
Phalaris arundinacea	Reed Canary-grass	a	
Phleum pratense	Grass, Timothy		
Pilosella aurantiaca	Fox and cubs		g
Pinus nigra subsp. nigra	Austrian pine	t	
Pinus sylvestris	Scots pine	t	
Plantago lanceolata	Ribwort Plantain		
Platago major	Greater Plantain		
Populus nigra x deltoides	Hybrid black poplar	t	
Potamogeton sp	Pondweed	a	
Potentilla anserina	Silverweed		
Potentilla reptans	Creeping cinquefoil		
Prunella vulgaris	Selfheal		
Prunus avium	Bird Cherry	t	
Prunus spinosa	Blackthorn	t	
Quercus robur	Pedunculate Oak	t	
Ranunculus acris	Field Buttercup		
Ranunculus ficaria	Lesser Spearwort	a	
Ranunculus lingua	Greater Spearwort	a	
Ranunculus repens	Creeping Buttercup		
Rhinanthus minor	Yellow Rattle		
Ribes uva crispa	Gooseberry	t	
Rosa canina agg	Dog Rose	t	
Rubus fructicosus	Bramble	t	
Rubus idaeus	Raspberry	t	
Rumex acetosa	Common Sorrel		

Rumex crispus	Curled Dock		
Rumex obtusifolius	Broad leaved Dock		
Sagina procumbens	Procumbent pearlwort		
Salix alba	White Willow	t	
Salix aurita	Eared Willow	t	
Salix caprea	Goat Willow	t	
Salix cinerea	Grey Willow	t	
Salix viminalis	Osier	t	
Sambucus nigra	Elder	t	
Saxifraga x urbium	London Pride		g
Schedonorus arundincea	Tall fescue		
Schoenoplectus lacustris	Common Club Rush	a	
Senecio jacobaea	Ragwort		
Senecio vulgaris	Groundsel		
Solanum dulcamara	Woody nighshade		
Solidago altissima	Tall Goldenrod		g
Sonchus oleraceus	Smooth Sow Thistle		
Sorbus aria	Whitebeam	t	
Sorbus aucuparia	Rowan	t	
Sorbus intermedia	Swedish Whitebeam	t	
Sparganium erectum	Branched bur-reed	a	
Stachys palustris	Marsh woundwort		
Stachys sylvatica	Hedge Woundwort		
Stellaria graminea	Lesser Stitchwort		
Stellaria media	Chickweed		
Succisa pratensis	Devil's bit scabious		
Symphoricarpos albus	Snowberry		g
Symphytum officinale	Common comfrey		
Taraxacum officinale	Dandelion		
Taxus baccata	Yew	t	
Tilia cordata	Small leaved Lime	t	
Tilia x europaea	Lime	t	
Tragopogon pratensis	Goat's beard		
Trifolium dubium	Lesser trefoil		
Trifolium pratense	Red Clover		
Trifolium repens	White Clover		
Tussilago farfara	Coltsfoot		
Typha latifolia	Bulrush, Reedmace	a	
Ulex europaeus	Gorse	t	
Ulmus glabra	Wych Elm	t	
Ulmus procera	Elm	t	
Urtica dioica	Stinging Nettle		
Veronica montana	Wood speedwell		
Veronica serpyllifolia	Thyme leaved speedwell		

Viburnum opulus	Guelder Rose	t	
Vicia cracca	Tufted vetch		
Vicia hirsuta	Hairy Tare		
Vicia sativa	Common vetch		
Vicia sepium	Bush vetch		

Holmhills Wood Community Park
Animals identified Phase 1 Habitat Survey in August / September 2015

BIRDS

Blackbird
Blue tit
Carrion crow
Chaffinch
Coal tit
Crow
Dunnock
Garden warbler
Goldfinch
Great tit
Greenfinch
Heron
Herring Gull
House sparrow
Jackdaw
Long tailed tit
Magpie
Mallard
Moorhen
Pied Wagtail
Song thrush
Starling
Swallow
Tawny Owl
Wood pigeon
Wren

MAMMALS

Fox
Grey Squirrel
Pipistrelle Bat
Roe Deer