

The status of Local Sites in Merseyside

Local Sites Annual Monitoring Report 2011

Merseyside Local Sites Partnership



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1. Recommendations

- The value and importance of Local Wildlife Sites and the role they play in supporting wildlife and communities across Merseyside should continue to be recognised.
- The protection of Local Wildlife Sites from development should be a priority for Planning Departments within the Districts.
- Resources should continue to be put aside for the monitoring of Local Wildlife Sites. This will help inform the Districts with regard to Single Data List reporting to Defra and keep the LDF Evidence Base up-to-date.
- The management of sites, particularly council owned sites, should be targeted at maintaining and enhancing the conservation features of the site. This will help the Districts to meet the biodiversity duty as set out in Section 40 of the NERC 2006 Act.
- The Liverpool City Region Ecological Framework should be implemented to enhance and reconnect the important areas of wildlife habitat within Merseyside.

2. Introduction

Local Sites

“The Local Sites system is a series of non-statutory sites, which seeks to ensure, in the public interest, the conservation, maintenance and enhancement of species, habitats, geological and geomorphological features of substantive nature conservation value. The Local Sites system should select all areas of substantive value, including both the most important and the most distinctive species, habitats, geological and geomorphological features within a national, regional and local context. Sites within the series may also have an important role in contributing to the public enjoyment of nature conservation.” *Department of the Environment, Transport and the Regions (DETR), report April 2000*

Local Wildlife Sites (LWSs) are important assets at a district, regional and national level for their nature conservation value. LWSs contain valuable nature resources that contribute to biodiversity through their connecting and buffering qualities, supporting habitats and species that are rare or declining, providing good examples of exceptional population(s) of a more common species, or exceptional diversity of species or habitats.

In certain areas, LWSs provide the bulk of areas designated for nature, both in number and combined area. LWSs are therefore extremely important for nature in these areas. Almost 20% of LWSs are within urban areas, providing over 130,000 hectares of urban green-space within England, by far the largest contribution of any wildlife sites.

Recommendation 12, within *Making Space for Nature*, (Lawton et al.), is that Local Authorities take responsibility for the identification and monitoring of LWSs. **Within North Merseyside this is already being undertaken through the Merseyside Local Sites Partnership and monitoring being conducted regularly since 2008 and published through ‘The status of Local Wildlife Sites in Merseyside, Local Sites Annual Monitoring Reports’.**

2.1. Defra guidelines

In 2006 Defra issued guidelines based around the principle that:

“whilst Local Sites may also provide other benefits, they contain features of substantive nature conservation value and that the purpose of selection is to provide recognition of this value and to help conserve those features by affording the sites an appropriate degree of protection.”

Defra advise that the general condition of Local Sites is monitored every five to ten years to enable the reporting of the current state of Local Sites and ensure the features for which the site was originally designated are still present.

The Department for Communities and Local Government has announced that the National Indicator set has now been superseded by the Single Data List. Local Authorities, who had previously supplied data on National Indicator 197, will continue to provide the same data as part of their response to the Single Data List (SDL). The SDL, 160-00 Improved Local Biodiversity requires reporting over a 5 year period. Monitoring 20% of sites supports the reporting of this performance indicator.

2.2. Local Sites Partnership (LSP)

Following Defra's 2006 guidelines, the North Merseyside LSP was established. This covers the Districts of Knowsley, Liverpool, Sefton and St. Helens. To designate Local Wildlife Sites, all sites for which records exist are assessed against the guidelines. Any sites, which meet the designation guidelines, are recommended for designation as Local Wildlife Sites. Monitoring has been undertaken since 2007.

The partnership has responsibility for 265 Local Sites in the partner Districts. Contrary to the general trend in the UK over the last 10 years, in North Merseyside only 4 sites (1%) have been lost, or have had developments approved, which will cause the loss of LWS status. **This shows the priority and commitment the Districts are giving to nature conservation, and the work that the LSP is doing to secure and maintain Local Wildlife Sites.**

2.3. Monitoring functions

The annual monitoring of LWSs performs several functions. As well as assisting the work of the LSP, information obtained can also be of use to departments in Local Authorities and external bodies. Typically monitoring:

- Keeps the LDF Evidence Base on Local Sites up-to-date
- Provides data to help the Local Authorities report on the Single Data List requirement - Local Sites in Positive Conservation Management.
- Provides information on sites that are at risk from development, inadequate land management and invasive species.
- Maintains an overview of the condition of the site (i.e. are the features of importance still present and in good condition).
- Identifies management actions required.
- Provides information for districts to report the current status of LWSs in their Annual Monitoring Reports.
- Provides data that can be used to measure the effectiveness of policy protection.
- Recommends actions to help meet NERC duties under Section 40.
- Meets Recommendation 12 as set out in *Making Space for Nature* (Lawton *et al*).

2.4. Natural Environment and Rural Communities Act (2006)

Local Authorities across England have a statutory duty towards the conservation of biodiversity. The Natural Environment and Rural Communities Act (NERC) 2006, places a duty on public bodies to have regard to biodiversity conservation. Section 40 of the Act states:

Section 40 Duty to conserve biodiversity.

“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”

The recommendations from the Local Sites monitoring report can help departments within Local Authorities meet their NERC duties. Further advice and guidance can be found in the leaflet:

“Merseyside Local Authorities & the Biodiversity Duty” available at: <http://www.merseysidebiodiversity.org.uk/index.asp?content=v2content\progress.xml>

3. Methodology

3.1. The monitoring of Local Sites has four stages.

3.1.1. Desktop analysis

Desktop analysis of sites performed the initial stage of data collection. Species records from previous surveys of the areas were obtained from Merseyside BioBank. Other information that has been carried out for a number of functions, such as planning applications, was also consulted to gather as much data as possible.

3.1.2. Contact land managers

Where sites are in private ownership, permission was sought for access to the land. For sites that are in public ownership, information was sent to council departments informing them that surveys will be taking place during the 2011 monitoring period.

3.1.3. Site visits

Walkover surveys were conducted for each site. Site visits were undertaken between April and August 2011. Surveys inspect site boundaries, habitat features and species, current activities and management practices, and suggest management and enhancement that would be of benefit to biodiversity. Photographs may be taken of sites to provide an additional visual record.

3.1.4. Completion of monitoring forms

The monitoring forms were completed on site visits as part of walkover surveys. Phase 1 habitat survey target note records were also completed on site. Copies of the phase 1 target notes were then passed to Merseyside BioBank for data capture.

3.2. North West Lowlands Water Vole Project (NWLWVP)

As with surveying in 2010, the water vole project contributed towards the monitoring of LWS during 2011.

3.3. Forever Meadows

The second survey year for the Forever Meadows project had a focus upon St. Helens and Knowsley. The project was able to survey 14 LWSs which will contribute towards the data for these sites. Of sites surveyed in 2011, 10 had been monitored within the last 5 years through the annual LWSs monitoring. Therefore only 4 sites have been included within this report. The Forever Meadows Project Officer will be completing a report which details the findings of the project, including all the monitoring forms and management undertaken. This will provide a useful baseline for the important grasslands within Knowsley and St. Helens and will be factored into future monitoring to assess the impacts of management.

4. Results

4.1. Sites monitored

54 sites were monitored in 2011 (Appendix 1). This is more than double the number in previous years' monitoring. The concerted effort by a number of individuals and groups to monitor sites has resulted in the high number. This is gratefully welcomed.

29 sites monitored in 2011 were in St. Helens. This is because St. Helens has the largest number of Local Wildlife Sites and previous years of monitoring have not managed to survey enough sites to ensure every site will be monitored on a 5 year basis. Across North Merseyside there are a large number of sites which had not been monitored for a long time and this is noticeable for sites within St. Helens.

The district summaries provide detailed information on the sites monitored in 2011. These are in Appendix 2.

4.2. Ownership

Of the 54 sites surveyed, 29 are in public ownership, with 4 being part owned by public bodies. Specifically the Local Authorities own 25 sites of LWSs surveyed in 2011.

4.3. Extent

Two sites were found to have loss of area. Mossland, west of Johnson's Cottage, Knowsley was found to have lost over half its area to agriculture. Charley Wood, Knowsley has also lost a small area to industrial development. All other sites are in their full extent as set out in the citations.

4.4. Adjacent development/change of land use

Since designation, 10 sites have had adjacent land that has been developed.

4.5. On site activities

Walking and dog walking continue to be the most recorded activities within LWSs at 38 sites.

Evidence of negative activities, such as tipping, burning and motor scrambling was recorded at 9 sites.

4.6. Non-native Invasive Species

41 sites had non-native invasive species present. In contrast to previous years, Himalayan balsam was the most recorded invasive species, followed by Japanese Knotweed and Rhododendron. This change reflects the number of watercourses included within monitoring during 2011.

4.7. Designated features

LWSs across North Merseyside can be designated for a variety of features, covering habitats and/or species. There is a continued trend of habitat loss (23 habitat features), with grassland habitats continuing to record the greatest losses (17 features). Water voles were the most common species designation feature, but at 8 sites they were not recorded this year.

4.8. Current site management

39 sites had some management being undertaken, even if minor. The management at 14 sites was found to be appropriate for positive conservation management.

4.9. Management recommendations

All sites, except one, surveyed in 2011 were found to require some form of management. In line with previous years, invasive species control is the recommendation made at the most sites (35).

The three management types recommended most frequently after invasive species control (scrub control, tree clearance and changing the grass cutting regime), are types of management which prevent succession of habitats and maintain the designation features.

Only Mill Brook, Netherley, Knowsley did not require any management. The habitat is suitable for the designation features (water voles).

5. Discussion

5.1. LWS Extent and adjacent development

Two sites were recorded to have lost area to development or agriculture. This is a very low proportion and confirms the work the Districts are doing to protect their LWSs. Ten sites were found to have had adjacent development, which highlights the pressure sites are under from land-loss and the loss of buffering habitats.

5.2. Local Wildlife Site uses and activities

Walking and dog walking continue to be the most commonly recorded activities in Local Wildlife Sites. This continues to highlight the importance and value of sites to local communities as a local environmental asset. Tipping and burning continue to be the most commonly recorded negative activity on sites. Most sites which experience tipping and burning activities are large and the activity could be attributed to the relative isolation that can be found in certain areas.

5.3. Invasive species and habitat loss

Invasive species continue to be a major problem to LWSs. Some sites had very high percentage cover of invasive species, and the same three species are recorded most frequently during monitoring. These species can reduce the species diversity of the site by outcompeting native flora. The presence of invasive species may also be compounding habitat losses, although grasslands seem to be experiencing the highest losses which are mostly attributed to natural succession to scrub and woodland.

5.4. Management

Management, or the lack of, continues to be a major issue on local sites. Although conservation specific management is being undertaken at a number of sites, the number of sites with general management is much higher. Raising awareness of the conservation management needs of a site is a continuing theme. In those sites which have general management, conservation specific management could be introduced as part of the existing management regime, or instead where appropriate.

As with last year, some benefit is afforded to sites which are managed for amenity purposes, such as council owned parks and green-spaces. However, management not aimed at ecological conservation can lead to the loss of habitats and a reduction in species. This was found at a number of sites during the 2011 monitoring.

As with previous years Invasive species control is recommended at the most sites. This flows from the high number of sites which have invasive species present. However, it is evident from monitoring that the priority on most sites is preventing succession and the loss of important conservation features. There high number of recommendations for scrub control, grass cutting and tree clearance, which are techniques to reverse habitat loss and maintain designated conservation features. This issue is particularly important for grasslands and wetlands.

6. Conclusions

Local Wildlife Sites within North Merseyside continue to be a valuable asset to wildlife and local populations. For four years the most popular activity within LWSs has been walking and dog walking.

“The natural world contributes to people’s health, well-being and quality of life. There is compelling evidence that access to natural spaces provides a wide range of benefits to people, including improved physical and mental health, greater self-esteem and improved concentration levels in children. Natural spaces can also help foster pride and a sense of belonging among local communities, and reduce anti-social behaviour. Establishing more coherent and resilient ecological networks will help to secure these benefits for more people, particularly in towns and cities, where more than 80% of us live and where disconnect with nature is often greatest.” Lawton et al.

A large number of LWSs are contributing towards the quality of life across Merseyside and the loss of these sites would have adverse impacts upon local communities. However, monitoring shows that the quality of some sites; problems with access; and connections between sites are limiting factors in their use by local communities. Improvements to more sites would help contribute further towards increases in quality of life.

The evidence from 2011 LWS monitoring confirms last year’s results that, although more sites are having positive conservation management, of the total number of sites the majority are not experiencing conservation management. The increasing trend of habitat losses, witnessed over the past two years, is due to the lack or misdirection of management. It is evident that all sites require targeted and planned management, to maintain, reinstate or improve the designated features to some extent. A major problem continues to come from invasive species and the undesirable succession of habitats. It can be shown that those sites that are managed for conservation have retained habitat features. If some management resources, which are currently focused upon high intensity amenity management, were redirected to target conservation improvement there could be a significant increase in the condition and ecological value of LWSs. This would also result in the reduction of site management needs and hence a reduction in costs for site managers and land owners. This is particularly relevant for council owned parks and green-spaces.

However, a number of sites monitored during 2011 were found to be in good condition, and many with management that was maintaining and enhancing the features of conservation. These figures will be used to inform the 2011/12 Single Data List reporting and should result in an increase in the percentage of sites in positive conservation management. Councils should be pleased that sites in their ownership are providing important areas for wildlife.

The continued monitoring and assessment of LWSs is needed across North Merseyside to inform councils, land managers and owners of the requirements of the sites. A great achievement has been made during 2011 to monitor 54 sites. However this high proportion of sites may not be achievable again due to external pressures.

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Appendix 1

Sites monitored during 2011

Knowsley

Akers Pits
Alder Brook, Cronton
Charley Wood
Copse, south of A58, Prescott
Croxteth Brook
Grassland west of Seth Powell Way
Huyton and Prescott Golf Course
Knowsley Brook
Mill Brook, Netherley
Mossland west of Johnson Cottage
Stadt Moers Q2
Simonswood Brook

Liverpool

Sefton Park
Croxteth Park and River Alt
Leeds-Liverpool Canal
River Alt and adjacent sites through Gilmoor
Calderstones Park
Knowsley Brook

Sefton

Leeds-Liverpool Canal
Rimrose Valley
Switch Island
Whinney Brook
Ainsdale Hills LNR
Ainsdale Hills NNR
Southport Marine Lake

St Helens

Bawdry Brook
Cambourne Road Pond
Clinkham Wood
Cloghe Wood and Grassland
Ellams Brook
Fir Wood
Glasshouse Close Wood
Grassland north of Sankey Brook
Islands Brow Burgy
Land west of Gerrard's Lane
Leg O'Mutton Dam
Lyme Pit Tip
Mersey Valley Golf Course
Mill Brook
Mill Brook 04
Mill Wood
Mossborough Moss and Woodland

Newton Brook 05
Ravenhead Ponds
Red Brow Wood
Sankey Brook
Sherdley Park
Sidings Lane
Small Wood, north east of Fenny Bank
St Helens Canal
Thatto Heath Dam
Weathercock Hill (Mine spoil, west of)
Wittle Brook
Windlehurst Quarry

Appendix 2 – Detailed District information

1. District Summaries

1.1 Knowsley

- 12 sites were monitored within Knowsley during 2011 and the results are summarised below.

1.1.1. Akers Pits

- This privately owned woodland, dominated by a mixture of mature tree species. A series of ponds is highlighted as important on this site, and were recorded as present.
- Usage of the site was recorded as very limited. The current management seemed limited and is not focused upon maintaining the features of conservation interest.
- The ponds were all shaded by trees growing around them. They were also very shallow and full of leaf litter. Very limited aquatic and marginal vegetation were recorded. Some clearance of these trees around the ponds was recommended. Hybrid bluebells was recorded within the woodland.
- There is some regeneration of trees but this was recorded as limited to sycamores. The scrub/shrub layer is reasonably diverse but limited in distribution. Clearance of the sycamore trees and samplings would encourage more ground flora to develop and the scrub/shrub layer to expand.

1.1.2. Alder Brook, Cronton

- A small brook containing a mosaic of habitats, including scattered trees, neutral grassland and single species dominated swamp. All habitats were recorded as present during the monitoring. A public footpath runs close to the site.
- The main management recommendation for this site was to instigate an annual grass cut of the banks with the aim to increase the species diversity. This would also prevent the grassland becoming dominated by scrub. It was also recommended that some of the scrub is removed along the brook to allow the grassland to expand.
- The area of swamp habitat is also being encroached upon by trees and it would be beneficial for these to be removed/thinned.

1.1.3. Charley Wood

- This council owned woodland contains semi-natural woodland as well as plantation woodland. There was evidence of very limited access with some walking occurring. A number of large glades were present which are dominated by scrub, bracken and rank grassland.
- The habitat features are grasslands, surveying has found that these grasslands were limited in distribution due to succession of habitats (scrub and bracken encroachment).
- Rhododendron, Japanese knotweed and Himalayan balsam were all present within the wood. The rhododendron is locally dominant, suppressing large areas of the ground flora.

- The main management recommendation was to control the invasive species. Other recommendations include clearing the scrub and bracken from the glades to encourage the grassland to regenerate. Also, the plantation and self-seeded woodland required thinning. It is probable that an area of wet woodland has established within the marshy grassland area. This is a valuable BAP habitat and a balance may need to be met whether to retain this habitat or try to re-establish the marshy grassland.

1.1.4. Copse, south of A58, Prescott

- An area of woodland with a wide variety of tree species and ages present. A large amount of deadwood was present across the site, which is beneficial.
- The primary school uses an area of the woodland as a playing field. This is regularly mown and is improved grassland.
- Rhododendron, Japanese knotweed and hybrid bluebells were all present, although in low frequency. There were a number of garden escapees along the eastern boundary where garden waste had been deposited. The central area, around the school playing field had a high occurrence of bracken.
- Management recommendations are invasive species control, specifically the rhododendron to prevent it becoming dominant. The pond was dry at the time of surveying, and may benefit from deepening and limited tree clearance.
- An area in the centre of the woodland, outside the LWS, was recorded as overgrown and forming a semi-natural clearing with grassland species present. It was recommended to include this in the site and remove scrub to allow the grassland to spread.
- A wall which previously split this site from Eaton Street Park had fallen/been pulled down and the school stated that this has led to an increase in anti-social behaviour, littering and fires within the woodland.

1.1.5. Croxteth Brook

- A short stretch of brook, which forms part of a hot-spot for water voles within Liverpool and Knowsley. The habitat was recorded as suitable for water voles with a wide variety of marginal and bankside vegetation. Blinks (*Montia Fontana*) is present submerged within the brook. Himalayan balsam is also present along the banks.
- No water voles signs were recorded, although a mink footprint was found.
- Mink and invasive species control would be beneficial along this brook. Although not vital currently, some areas of the banks would benefit from scrub control and removal.

1.1.6 Grassland west of Seth Powell Way

- This council owned site contains a species rich grassland, as well as reedbed and woodland. The River Alt flows through the site and water voles have been recorded in the area, the habitat within this site is not suitable due to bankside trees.
- No invasive species were recorded as present during the survey, but Japanese knotweed has been reported as present on site.
- The management recommendation for this site was to instigate an annual cut of the grassland. The control of invasive plants, if present, is also a priority.

1.1.7 Huyton and Prescot Golf Course

- This large golf course covers a wide range of habitats and includes a population of water voles. The entire site was not surveyed due to time constraints and weather conditions. Although all the habitat features were recorded as present. The brook was not surveyed for water voles.
- The site was managed, with regularly mown greens and 'rough' areas of the golf course; although around the edge of the site the grassland is allowed to develop.
- The woodland areas were also managed with no scrub layer and very limited species diversity. The ponds surveyed were species and habitat rich.
- The main management recommendation is to reduce the management in some areas and allow the grassland to develop. This would be particularly beneficial within the woodland areas.
- A small area of acid grassland and marshy grassland was recorded within the site, but this is not part of the site's citation.
- Additional surveying was advised to cover the whole site and search for all the designation features.

1.1.8. Knowsley Brook

- A long stretch of brook which forms part of the hot spot for water voles. In one area the site is along one bank of the brook, with a complementary Liverpool LWS along the other bank.
- Industrial development had occurred adjacent to the site within Knowsley Business Park and Gillmoss Industrial Estate, Liverpool.
- Signs of water voles were recorded but were very limited. The habitat is suitable in places, mainly along the stretch which forms the district boundary with Liverpool. Himalayan balsam is present along the banks of the brook, which are also engineered in places, although this is with wooded sleepers and could allow access between/behind them.
- Management recommendations were mainly removal of invasive species and grass cutting to prevent scrub encroachment.
- The stretch through Knowsley Business Park is restrained within a concrete channel and could be re-aligning to naturalise it. The wooden sleepers could also be removed and replaced with soft defences.
- Willow Bed Plantation woodland is adjacent to the brook and would benefit from a further survey. The woodland seemed to be species rich and contained areas of wet woodland.

1.1.9. Mill Brook, Netherley

- A very short stretch of brook forming a link between Netherley Brook LWS and Dog Clog Brook LWS. The stream is wide and slow flowing, providing good habitat for water voles. A public footpath runs along the edge of the site.
- Water vole signs were recorded along the brook, including numerous holes, runs and bedding.
- The habitat is good for water voles with lots of grass and herb species and very little scrub encroachment. Lots of submerged vegetation was also present. Himalayan balsam covers a large percentage of the site (26-50%).

- The current site only runs along half of the brook, it was recommended that the rest is included within the LWS. Also, the field to the north of the site was recommended for inclusion within the LWS. It contains a number of habitats (swamp, standing water, grassland and hedgerow). The site has large potential as an even more important wildlife site with some habitat management and enhancement.
- Management is recommended to control the invasive species.

1.1.10. Mossland west of Johnsons Cottage

- This is an area of privately owned relic lowland raised bog. It was not due for monitoring in 2011, but a boundary review identified that the southern half of the site had been destroyed by agriculture. Therefore the site was included in the monitoring.
- The site was originally made up of a southern section of relic bog surrounded by agricultural land, and a northern area covered in woodland and adjoining Brown Birches LWS woodland.
- The northern section was recorded as being used as a paintballing site and dominated by silver birch (*Betula pendula*) woodland. The ground flora was dominated by purple moor grass (*Molinia caerulea*). The edge of this area was surrounded by a ditch with good species diversity.
- None of the designation habitat features were recorded. It is possible that they were present within the southern section.
- Rhododendron was present, covering a significant area of the site, although the owners/managers of the site were actively clearing it. This was recommended to continue/increase.
- Depending upon priorities it may be beneficial to fell the trees and attempt to encourage the bog to regenerate.

1.1.11 Stadt Moers Q2 and visitor centre

- This council owned site forms one of four other LWSs that cover Stadt Moers Country Park. The site is made up of an area of amenity grassland and woodland.
- The designation habitat features (marshy grassland and neutral grassland) were not recorded as present. This may be because the woodland has expanded, for example wet woodland was recorded in the survey. The areas of amenity grassland could once have been more species rich, with possible misdirection of management reducing the species.
- Management recommendations include clearing trees and scrub to encourage grasslands to re-establish and prevent the wetland habitats from drying out.

1.1.12. Simonswood Brook

- A long stretch of brook, which forms another part of the water vole hotspot within Liverpool and Knowsley.
- The brook is slow flowing with steep banks. These were covered in grass and tall herb species providing suitable conditions for water voles, although Himalayan balsam is dominant in some areas.
- A number of water vole signs were recorded, including feeding remains, holes and latrines.
- The habitat is suitable for water voles and the only management recommendation is to remove the invasive species.

1.2 Liverpool

- Six sites were surveyed in Liverpool during 2011 and the results are summarised below.

1.2.1 Calderstones Park

- A large council owned park.

1.2.2 Croxteth Park and River Alt sites

- A very large council owned site with a wide variety of habitats present, including woodland, ponds, parkland, and grasslands. Water voles are also present along the River Alt. The site is well used as a recreational/educational resource.
- All the habitats listed on the citation were recorded during the monitoring, although they were all judged to be in deteriorating condition. Invasive species were recorded on site (rhododendron, Japanese knotweed, Himalayan balsam, giant hogweed and hybrid bluebell).
- The site is currently managed in some areas and it was recorded that future management is planned for some of the woodlands.
- Management recommendations were to continue the woodland management within Mull Wood and continue to extend this to the other woodlands. They would benefit from thinning, gap/glade creation, invasive species removal and understory encouragement.
- The parkland on site was recorded as grazed during the survey, although this does not seem to be with biodiversity in mind. An adaption to the grazing regime was recommended. The parkland trees are also over-mature and were advised to be supplemented with new planting.
- The management of the grasslands on site, ranged from intensive mowing to no management at all. It was recommended to reduce the mowing in some areas, while increasing it in others.
- All the ponds are currently overgrown and would benefit greatly from some tree/scrub removal.

1.2.3 Fazakerley WwTW, River Alt and Sugar Brook

- Another large site coving a wide range of habitats. It is council and privately owned. A significant amount of habitat creation and enhancement has been undertaken as part of adjacent developments. All the habitats listed on the citation were recorded as present.
- The management on site is recommended to thin the plantation woodland and create rides and glades. The grassland on site is also in need of annual cutting and the removal of the scrub which is encroaching.
- It was also recommended to conduct some work to the brooks onsite, including control of the water flow, re-profiling the banks in places and de-silting.

1.2.4 Leeds – Liverpool Canal

- A stretch of canal which has number of important habitats present, including swamp, grassland and running water. All were recorded to be present and in reasonable condition.
- A number of invasive species were recorded during the monitoring. Japanese knotweed was recorded as causing a problem within the grassland and was in need of control. *Azolla* and parrot's feather were also recorded as covering 20% of the aquatic area.

- Limited management seemed to occur with regard to conservation on site. However, as well as invasive species control, only the reduction in grass mowing was advised.

1.2.5 Sefton Park

- An urban park with a variety of habitats present. The monitoring recorded that although the site is managed for amenity, areas are also managed for biodiversity with beneficial results.
- The monitoring did highlight that invasive species (Japanese knotweed, Himalayan balsam and hybrid bluebell) were present on site. These were in need of controlling to prevent them becoming dominant.

1.2.6 Knowsley Brook

- This site is contiguous with Knowsley Brook, Knowsley (Section 5.1.8). The survey results and management recommendations are therefore the same. The only difference is that development has occurred adjacent to the site within Gillmoss Industrial Estate.

1.3 Sefton

- Seven sites were monitored within Sefton during 2011 and the results are summarised below.

1.3.1 Ainsdale Hills LNR

- A large coastal nature reserve. It is dominated by sand dune habitats with associated plant and animal species present. As an LNR and as part of the Sefton Coast, the usage of the site is very high and varied, including walking, dog waling, cycling and grazing.
- All the habitats listed on the citation were recorded as present during the monitoring, as were the species listed.
- The site is currently managed but a number of recommendations were suggested. These include; the removal of the invasive species (sea buckthorn, Japanese rose, pine sp. and poplar sp.); the continued sheep grazing of the site was judged as being very important for the maintenance of the conservation features.
- The site has populations of natterjack toads and sand lizards. To maintain suitable habitat for these species the removal of scrub from the dunes was recommended. Also some maintenance of the wetlands on site would benefit the natterjack toad breeding success.

1.3.2 Ainsdale Hill NNR

- This site, adjacent to Ainsdale Hill LNR, contains many of the same habitats and associated species. Although this site also contains large pine plantations which support red squirrel populations. The wetlands also support breeding populations of great crested newts.
- All the animal species listed in the citation were recorded as present through the monitoring.
- The management recommendations of the site are largely the same as Ainsdale Hills LNR, although the large pine plantations are inhibiting the extent of sand dune habitats, conflicting with the presence of the protected species and BAP listed red squirrels.

1.3.3 Leeds – Liverpool Canal

- A stretch of canal and adjoining areas which contain a wide variety of habitats and supports a population of water voles.
- The grassland habitats listed on the citation were not recorded during the monitoring. It is likely that these habitats have succumbed to succession and would require management to re-establish them. The swamp habitats were recorded along the banks of the canal.
- The management conducted on site was recorded as for amenity purposes only. The canal would benefit from litter picking to remove the rubbish and tipped material. The reedbeds would also benefit from reduction in size to protect the open water of the canal. This could also benefit the water vole habitat as it would allow a more diverse plant community.

1.3.4 Rimrose Valley

- A large site consisting of a mosaic of habitats, including wetlands, grasslands and standing/running water. The whole site could not be surveyed due to its size and time constraints, although most of the habitats listed on the citation were recorded as present. The site is heavily

used as a recreational resource. Tipping and some motor-scrubbing were recorded on site.

- The canal also provides habitat for water voles, with signs being recorded during the monitoring. The habitat for this species is good along some stretches of the canal, but the bank opposite the towpath is dominated by scrub.
- The site is currently managed which is maintaining the conservation features. It was recommended that this continues and it was also suggested that the canal is cleared of litter.
- The wetlands on the site seemed quite low and there was concern that they were drying out. Sefton Council are addressing this through their management plans. It has also been confirmed that a detailed management plan is being drawn up for this site and this should work towards maintaining the conservation features.

1.3.5 Southport Marine Lake

- This artificial lake between Southport and the coast contains small areas of sand dune habitat as well as the water body which is important for bird populations.
- All the habitats were recorded as present through the monitoring, as were the winter bird populations.
- It was reported that the habitats on site had experienced degradation in recent years due to reduced usage. This was due to fencing stopping public access. The usage of the site has since increased due to access being established again, meaning the habitats are improving in quality.
- The main management recommendation for this site is to remove the invasive species (Japanese rose and sea buckthorn), which are present in small quantities.

1.3.6 Switch Island

- This is an area of grassland, wetland and woodland situated within the motorway interchange of the same name. This interchange has recently been upgraded which has split the site into two islands, surrounded by busy roads. Access is very restricted because of this.
- The site is mainly grassland, although the monitoring found that this had been re-seeded with a wildflower mix limiting its value as unimproved natural grassland. The marshy grassland was also becoming dominated by reeds. The woodlands on site were not managed.
- Management recommendations for this site were to increase the grass cutting, providing a varied sward structure and preventing the area scrubbing over. The wetlands would also benefit from being cut and cleared.

1.3.7 Whinney Brook

- A stretch of brook which has a mix of habitats, including grassland, and provides habitat for water voles. The monitoring found that the water vole population was limited to the very lowest reach where the brook joins Dover's Brook. This was because the habitat is not suitable, with many trees and scrub. The grassland was also not recorded, possibly for the same reason.

- The management recommended for this site was to control the invasive species which are dominating some areas. Rubbish was also accumulating which would be useful to be removed.
- The removal of some of the scrub may extend the water vole habitat and reinstate the grassland.

1.4 St Helens

- Twenty nine sites were monitored in St Helens during 2011 and the results are summarised below.

1.4.1 Bawdry Brook

- A rural brook which provides habitat for water voles. Limited signs were recorded during the monitoring. The stretch east of Rainford Bypass does not provide suitable water vole habitat as it is woodland. All signs were recorded west of the bypass.
- The section which contains water vole signs provides good habitat for the species, the management also seems to be positive for maintaining the population. The section east of the bypass is woodland and if required would need tree clearance to provide suitable water vole habitat.

1.4.2 Cambourne Road Pond

- A small pond located adjacent to Sankey Brook and Glasshouse Close Wood, it provides a good example of this habitat.
- The monitoring found that there was very little emergent vegetation around the pond, except some willow saplings. Parrot's feather was also recorded within the water. A number of invertebrates, including common blue damselfly (*Enallagma cyathigerum*), were recorded on site. Damselflies were also recorded as breeding within the pond.
- The main management was to control the invasive species. The monitoring also recorded that some tree/scrub removal was undertaken and this should continue.

1.4.3 Clinkham Wood LNR

- A Community Woodland which contains a variety of habitats, including grassland and wetland. The grasslands were recorded as present during the surveying but were in need of management to ensure they are retained. The pond has recently been dredged.
- English bluebell is listed as a designation feature on the citation, but hybrid bluebells plants dominate the woodland. Rhododendron, Japanese knotweed and Himalayan balsam are all present within the woodland. The rhododendron has been controlled but was re-growing. The Japanese knotweed was being treated where it occurs near pathways.
- The woodland is maintained for recreation but there seems to be management for biodiversity, with fallen deadwood and trees left in situ. The understory is dominated by bramble and clearance of this would diversify the ground flora. Tree recruitment is good with a number of species saplings present.
- The grasslands in this site are threatened by scrub encroachment and invasive species. Both these needed removal and control.
- The woodland would also benefit from some sycamore removal to encourage more native species and allow more diversity in the ground flora.

1.4.4 Cloghe Wood and grassland

- An area of woodland, grassland and wetland. The site extends along Cloghe Brook. The monitoring found that some of the habitats were still present, including the wetlands features. English bluebells was recorded as present during the monitoring.

- Japanese knotweed and Himalayan balsam were recorded on site. These were recommended for removal/control to prevent their spread.
- The monitoring also found that the water quality seemed to be poor and it would be beneficial to investigate if any pollution was draining into the site.
- Some habitats were not recorded during the surveying because access to the site was limited in places.

1.4.5 Ellams Brook

- A stretch of brook which was designated for a population of water voles. The site is split into two sections, west and east of the M6. Only the eastern section was surveyed due to access. No water vole signs were recorded.
- The habitat along this brook was found to be unsuitable for water voles, with the banks dominated by broadleaved woodland. Although, some areas of suitable habitat may be present that could not be accessed during the monitoring.
- To reinstate the water vole habitat would involve removing trees and areas of woodland to encourage more grass and herb species.

1.4.6 Fir Wood

- A mixed species woodland with wetland habitats present. The ponds were recorded as present and in good condition with some management being undertaken to maintain the openness and prevent them drying out.
- Rhododendron and Himalayan balsam were recorded within the woodland. The balsam was reported to be suppressing the emergent vegetation around the ponds and was recommended for removal. The rhododendron was suppressing the scrub layer of the woodland to a degree and it would be ideal to remove it.
- As well as the invasive species removal, management recommendations were to encourage/plant other scrub species to diversify the ground flora and replace any controlled rhododendron, and maintain the pond management as present.

1.4.7 Glasshouse Close Wood

- An ancient woodland site with a good variety of habitats present. These include grasslands and wetlands. The wetlands were recorded as present during the monitoring, but the grassland was unknown. No indicator species were present within the grasslands.
- Himalayan balsam and hybrid bluebells were recorded within the site. The balsam was dominant in places, the bluebells were present at the expense of native English bluebell plants.
- Management recommendations for the site were the removal of the invasive species. Areas of scrub and bracken are also recommended for removal to allow ground flora to establish. Within the woodland sycamore trees are currently removed, this is advised to continue. Some of the ditch/stream could also be cleared to allow deeper pools to form.

1.4.8 Grassland north of Sankey Brook

- A site designated for the grasslands and wetland habitats present. The site is a mosaic of grassland, woodland and wetlands. It is also important for butterflies. All the habitats were recorded as present during the

monitoring, although the grassland was recorded as shrinking in size due to woodland expansion.

- The management recommendations were to instigate an annual cut of the grasslands and removal of the arisings. The site would also benefit from scrub control and invasive species removal to protect the important habitats from being lost.

1.4.9 Islands Brow Burgy

- A large site which has formed over industrial waste, this has led to the presence of some unusual habitats for such a location, including, dune grassland and salt marsh. Other grasslands and wetlands are also present on site.
- Only neutral grassland and marsh were recorded during the monitoring. All other habitats could not be found. This was attributed to the natural spread of the woodlands on site. The grasslands were also becoming dominated by rank grass species which was limiting the species composition.
- Management recommendations for this site were to retain the existing grassland areas. This would include scrub control, tree clearance and grass cutting. Depending upon priorities it may also be worth clearing some of the extensive woodland to allow the unrecorded habitats to re-establish.

1.4.10 Land west of Gerrard's Lane

- A millennium park with woodland, grassland and a brook present. The site is designated for the grassland habitats. Monitoring was limited because the site was padlocked shut and the survey was undertaken from neighbouring roads.
- It is likely that the grasslands are progressively being lost from this site, which seems to be dominated by woodland and scrub. Japanese knotweed was also recorded on site.
- The current management of the site is unknown, but to ensure the important conservation features are not lost, it was recommended that scrub and tree removal/clearance were undertaken. The knotweed would also need eradication.

1.4.11 Leg O'Mutton Dam

- An urban lake with a number of wetland habitats present. All the habitats were recorded as present through the monitoring. The current management of the site was judged to be working toward maintaining the conservation features of the site.
- As the current management of the site was positive for conservation, recommendations made were to continue with this work and continue to treat the areas of Japanese knotweed which are present on the site.

1.4.12 Mersey Valley Golf Course

- A large site containing a wide variety of habitats. The ponds are of particular interest on this site. They were recorded as still present and in good condition through the monitoring.
- The current management of the site was maintaining and seemed to be enhancing the conservation features. The management of the grassland areas (the 'roughs') was producing species rich grasslands, with some

species which indicate marshy grassland habitats are present. It would be beneficial to assess these habitats again in more detail to judge if they would qualify for inclusion in the citation for this site.

- However the site does contain stands of Japanese knotweed and rhododendron. It was recommended that these are controlled with future management.

1.4.13 Lyme Pit Tip

- An area of grassland, with woodland and wetland habitats also present. The site is part of a future country park, with lots of habitat creation occurring adjacent to the site.
- There is some indication that the area is undergoing changes in the habitat composition with acidic grassland giving way to more neutral grassland.
- The site is managed for the grasslands with an annual hay cut taken once a year. This is recommended to continue.

1.4.14 Mill Brook

- A stretch of brook which supports varied habitats and a population of water voles. No water vole signs were recorded during the monitoring although the habitat seemed suitable in places.
- Some areas of the site were dominated by bracken and brambles. It was recommended that these were controlled and grass/herb species encouraged to develop.

1.4.15 Mill Brook 04

- A continuation of Mill Brook LWS, this council owned site provides habitat for water voles as well as a number of wetland habitats. These were recorded as present through the monitoring, although they were close to drying out. It was recommended that this could be monitored and pond maintenance carried out if required.
- No water vole signs were recorded during the monitoring, although access to the brook was limited. Management recommendations for this site also included consultation with neighbouring landowners who seem to be intruding into the site.
- Existing management of this site was good and the site was being maintained in good condition.

1.4.16 Mill Wood

- A council owned woodland adjacent to Mill Brook LWS, it is important for wetland and grassland habitats. The grassland habitat could not be found during the monitoring. The wetland was recorded as present, creating wet woodland areas, although it is in need of management due to encroachment by brambles.
- The only management recommendation was to clear the brambles which currently dominate the ground flora of the site. This is compromising the wetland and grassland habitats, as well as suppressing the bluebell plants present within the wood.

1.4.17 Mossborough Moss and Woodlands

- A large privately owned site with woodland and relic moss habitats, the site is important for the breeding birds which it supports and the habitat was recorded as good for this.
- The site is dominated by rhododendron plants which are suppressing other species within the woodland. This also limited the access to the site. Ideally this invasive species is recommended for removal, although this may impact the habitat available for breeding birds. It could be possible to supplement this with planting other shrub species.
- The clearance of some of the trees on site could also allow the ground flora to develop, which may allow some of the moss habitat to expand.

1.4.18 Newton Brook 05

- A section of brook and floodplain which contained grassland and wetland habitats and provides habitat for water voles. The grasslands on site were becoming dominated by coarse grass species and were not particularly species rich. It was recommended that the grasslands are cut annually to prevent scrub and coarse grasses dominating.
- The brook contains some suitable water vole habitat but was hard to access and no signs were recorded. The wetlands provide ideal habitat and were judged to be in good condition, with a range of species present.
- Some areas of the wetland were becoming dominated by willow species which were recommended for removal/clearance. Himalayan balsam was also prevalent and was recommended for control.

1.4.19 Ravenhead Ponds

- A pond and wetland complex with important habitats and some unusual species, such as Sea club-rush (*Bolboschoenus maritimus*). This site was monitored to assess the condition after development had been completed which had affected the sites boundaries.
- Minimal activity was recorded on this area of the site, with a large flock of Canada geese grazing the banks. The southern section of this site is used as a fishing lake.
- All habitats were recorded as present on site, with a large species list indicating the site is diverse. It was recorded that the sea club-rush was doing well and did not require intervention to retain this feature.
- The management of the site was unknown, but judged as limited. Japanese knotweed was present on site and there was some evidence that this was being controlled. However, it was advised that this needs to continue and increase to prevent the plant establishing.

1.4.20 Red Brow Wood

- A council owned ancient woodland site, with important water habitats and English bluebells. The woodland can be split into two general areas with varieties in ground flora and understory extent. The ponds on site were recorded as being heavily shaded with no aquatic/marginal vegetation, except Himalayan balsam.
- English bluebells was recorded on site, however Himalayan balsam and bramble were intruding into the area of this and this was recommended for management.

- Japanese knotweed was present along a gully in the north-western section. This was encroaching upon the watercourse and threatening the diverse ground flora here.
- The use of the site included walking, dog walking and cycling. However, it was also recorded that tipping was occurring on site and some burning of trees in the northern area of the wood.
- Current management seemed to include tree thinning and stump removal. It would be beneficial if the felled wood was left onsite and not chipped and removed to provide deadwood. There also seemed to be some tree planting of horse chestnut (*Aesculus hippocastanum*), the reason for this was queried.

1.4.21 Sankey Brook

- A long stretch of brook which is within Sankey Valley Park. The brook supports populations of water voles and a number of grassland habitats.
- A water vole survey could not be undertaken due to access limitations. However the habitat was judged as moderate for water voles because the banks were dominated by Himalayan balsam with limited grass/rush/sedge/herb species present. Limited water vole signs were found during surveying in 2009, but mink signs were also recorded. It is possible that the water vole population within the Sankey Valley is declining.
- The grassland habitats were not recorded during the monitoring. The banks were recorded as dominated by brambles, nettles and tall ruderal herbs. Himalayan balsam was dominant along the length of the brook. However, some aquatic macrophytes were recorded within the water channel.
- The section downstream of Penkford Bridge (Common Road, Earlstown) is managed by the Environment Agency and was planned for grass cutting in late 2011. The section upstream of this bridge does not seem to be managed.

1.4.22 Sherdley Park

- A large council owned park and golf course, with a wide variety of habitats and species present. Great crested newts have been recorded breeding on site. The golf course could not be monitored due to access.
- The grassland habitats were not recorded during the monitoring. However, these habitats may be present within the golf course. English bluebells were recorded on site, but other plant species were not recorded. This may be because the habitats they grow in were not recorded.
- Great crested newts have been recorded breeding within the main lake in recent years. However it was observed in monitoring that the population would be isolated due to the site being surrounded by roads and urban development.
- The park is managed for amenity purposes, with no habitat management undertaken. However, the rangers on site did comment that they had removed Spanish/hybrid bluebells from the woodlands.
- Works to the ponds were recommended to de-silt and remove some overhanging trees. Planting macrophytes would also provide more diversity and habitats.

1.4.23 Sidings Lane

- A former colliery now regenerating, with grassland, wetlands and woodlands being important for the site. A wide range of plant species has been recorded on site and the area is important for bats.
- The site is dominated by broadleaved woodland with limited areas of grassland. The grassland present was judged to be intensively managed amenity grassland.
- The pond was recorded as present on site with a range of marginal plant species present.
- It was recorded that no obvious management seemed to be being undertaken. However, information has come to light since the monitoring that woodland thinning works have been undertaken.
- Monitoring recorded that the site does not seem to need management. Potential management could be to try and re-establish the species-rich grasslands on site.

1.4.24 Small wood, north east of Fenny Bank

- An area of woodland which also contains ponds, grassland habitats and English bluebells. The site is used to rear game and is not open to the public. Snares were recorded on site.
- Three ponds were recorded as present. The largest pond has well developed marginal vegetation and little shading, while shading increases and vegetation declines with the other two ponds.
- Bluebells were not recorded on site as the survey was too late in the year. The gamekeeper did comment that they may be present in the woodland.
- Rhododendron was recorded covering up to 50% of the site. This was assessed to be inhibiting the ground flora and understory. However the structure of the woodland was judged to be good.
- It was recommended to remove the rhododendron and establish replacement scrub species. Some tree clearance around two of the ponds would also encourage marginal vegetation to develop.

1.4.25 St Helens Canal

- A stretch of the disused canal, it is owned by the council and used extensively for local recreation. The site forms part of the wider Sankey Valley Park and is adjacent to Stanely Bank SSSI.
- The site is important for grassland and wetland habitats. The grasslands recorded on site were either amenity grassland with heavy mowing, or rank and dominated by ruderal herbs. The wetland habitats were extensive and species diverse.
- Current management was recorded as focused upon amenity management. St Helens Council are initialising some improvements to the canal basin located north of the visitor centre. This includes some habitat improvements and invasive species control.
- It was commented that the grasslands needed cutting in places to reduce the areas of rank grassland and ruderal herbs, while in other places cutting was recommended for reduction to allow a more diverse species structure.
- The reedbed south of Blackbrook Road was highlighted for future management to maintain the structure. An area of swamp/marsh at the confluence of Black Brook and the canal was recorded as becoming encroached upon by trees which could be removed

1.4.26 Thatto Heath Dam

- A former reservoir with important wetland habitats, the site is used and managed for angling.
- The wetland habitats were recorded as present during the monitoring. The swamp habitats form a narrow fringe around the lake becoming more extensive to the western end where access is limited.
- The site is heavily managed as an angling and community facility. This includes planting ornamental plant species. However, this was not compromising the conservation features.
- Himalayan balsam was present along the shoreline and it would be beneficial for this to be removed.

1.4.27 Weathercock Hill (Mine spoil, west of)

- An area of disused mine tip. This site contains a mosaic of habitats and an important area of wetland.
- The swamp habitat was not recorded during the monitoring. It was noted that the central area of the site was part damp/part dry and dominated by nettles. The rest of the site was regenerating woodland. Japanese knotweed and Spanish/hybrid bluebells were recorded on site.
- Burning or bonfires and tipping of waste, predominantly vegetation, were occurring.
- The surveyor commented that management may not be required. To re-instate the swamp habitats the area would need scrub removal and deepening to encourage more swamp species to establish.

1.4.28 Whittle Brook

- A long stretch of brook providing habitat for water voles and English bluebells, the site has a variety of habitats including broadleaved woodland, grassland and scrub/tall herb.
- Water voles were not recorded during the monitoring but the habitat in places, specifically in the area closest to Clock Face Road, was recorded as suitable. In other locations the habitat was woodland and unsuitable for water voles.
- There appeared to be no management of the site. The banks of the brook were recorded as needing cutting, scrub clearance and some tree thinning. The level of water in the brook was also considered to be low, which could limit the suitability for water voles.

1.4.29 Windlehurst Quarry

- A site with diverse grassland, scrub and wetland habitats present.