

Lanarkshire Biological Information Survey

**Commissioned by Lanarkshire Biological Recording Forum
Funded by Scottish Natural Heritage**

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1. Terms of reference

This study was commissioned by Lanarkshire Biological Recording Forum (LBRF), and funded by Scottish Natural Heritage, to provide baseline information to underpin a development process plan leading towards a Local Biological Records Centre for North and South Lanarkshire. The remit of this study was to: -

- Assess the format and scope of biological information currently held by organisations within the Lanarkshire area.
- Assess the recording priorities of partner organisations
- Assess the priorities of potential customers of biological information.

The study was to carried out through visits to a number of organisations, with postal questionnaires to others, to examine their current use of biological information, their holdings of such information and likely future developments in information needs. This was then used to gauge the likely benefits of sharing access to information between the organisations that might justify the development of an local biological information centre to provide a biological information service for the area

The list of organisations came from membership contact list of the LBRF and the mailing list of the North Lanarkshire Biodiversity Action Plan group.

2. Introduction

Biological recording is the organised gathering, storing and synthesising of information about the natural environment. Its uses are varied, ranging from academic interest through to meeting national and international obligations for wildlife conservation. Collecting biological information has been undertaken by a number of organisations over a long time and there are now many sources of information in varied, and often incompatible, systems and locations. Over the last few years, there has been a recognised need to: -

- promote the integration of the many individual systems,
- introduce higher standards of data gathering and handling,
- focus the range of efforts towards some key priorities,
- develop a monitoring role to permit effective assessment of many conservation schemes in meeting objectives,
- achieve efficiencies by integrating and sharing information wherever possible.

Nationally an initiative, the National Biodiversity Network, has been ongoing for the last 3/4 years, supported by a wide range of conservation organisations. It is developing a strategy for the formation of a network of local centres, all operating to a common set of standards and service provision criteria. These criteria will address issues of management, funding and priorities of the NBN centres. Standards of information gathering, quality of information and standards of service are all being addressed in this initiative and any development in Lanarkshire would follow this model

Lanarkshire has had a number of biological information 'centres' in operation over the past years. These have varied in capability for time to time and place to place North Lanarkshire Council has a fairly effective centre within the Conservation and Greening unit. In South Lanarkshire there are several small centres based on Country Parks but these do not seem to have developed in a similar way probably due to a lack of specialist staff. . SNH, as a statutory organisation with wide-ranging responsibility for conservation, has a major information resource at its Lanark office.

A number of other conservation organisations have more specialised collections of data reflecting their own fields of interest; they fall into two main groups. The first includes the 'countryside projects', partnerships set up under the Countryside around Towns initiative with remits to develop conservation projects in certain areas within or around population centres. They use habitat survey information and species studies to identify important sites in the areas in which they are active. They usually comment on planning applications within their areas of operation.

The other group consists of 'independent' natural history and conservation bodies that study species or habitats and who collect biological information (or records) in the process. Those with expertise in a special area often provide special advice or services to other organisations. For example, the RSPB and SOC advise on bird interests and carry out bird counts, the Bat and Badger groups often give advice and carry out surveys on behalf of SNH. Many of these organisations include scrutiny of, and comment on, planning applications and nature conservation strategies within their objectives.

Business organisations are also under increased pressure through legal obligations, corporate policies and public awareness, to operate to higher environmental standards. This generates a need for more information on environmental matters. Some, for example West of Scotland Water; are developing their own resources; others, such as Lanarkshire Development Agency make use of consultants for surveys and assessments. Collectively, a large amount of money is spent on this.

Within local authorities, the recent reorganisation, the new policies and legislation, and ongoing developments in good practice, are all generating a need for more and better information to enable tasks to be carried out to higher standards. This will involve Departments that own or control land such as parks, school grounds or other areas, as well as the planning Departments which have a wide-ranging responsibility for controlling land use and for carrying forward conservation strategies.

Several recent developments of national policy and legislation add greatly to the justification for a local biological information service. These include- legislation covering access to environmental information from public bodies, environmental assessment legislation, new planning guidelines, and governmental initiatives such as the Biodiversity Initiative, Environmentally Sensitive Areas scheme, Countryside Premium scheme etc. References to these are given at appropriate points within the report.

The Local Biodiversity Action Plan process (described in the 'themes' section) is a very important initiative that is being fostered by the Government (Scottish Office) with a number of pilot project areas being supported to develop good practice and guidance. South Lanarkshire is one such pilot area and so, in this area, the LBAP process is of particular relevance to the development of a local information resource.

For all these reasons, this is a very opportune time to review the use of biological information in Lanarkshire amongst these varied organisations. The aim of this study has been to examine the need for, and benefits of, redeveloping the local biological information centres as they currently exist, into a more effective and properly funded and managed service. The exact nature of such a resource, whether it is one source or several, connected by data exchanging methods and working to a common agenda, is not dealt with here.

During the survey it became apparent that the idea of a single 'centre' was not necessarily the only form, though there was common agreement that a shared service with appropriately skilled staff was needed. Therefore the use of the term centre, in the sense of a single entity, is only for convenience in writing this report. Acronyms are explained in the glossary.

3. Reports of interviews and questionnaires

A number of organisations received a direct visit to carry out an interview covering the information in the questionnaire. These were mainly those organisations whose involvement was greater than average or whose remits were not widely known. The rest of the contacts responded to a postal questionnaire, with follow up phone calls where needed. Because of time constraints, not every organisation in the area could be contacted and of those, not all responded in time to be included in the report. The ones that responded are listed below. Full lists of all relevant organisations, with contacts, are given in section 7.

Naturally enough, some organisations were not fully aware of the roles of others. In the hope that this report might cover that need, the interview reports are written in narrative rather than in tabular form. It is the hope that this would give a better understanding of the essence of each organisation's work and highlight distinctive roles that each organisation plays.

From these reports a number of **themes** were identified representing areas of work which involved more than one organisation in them. These are described in section 4.

organisations responding to survey.

1. North Lanarkshire Council Planning & Development Department
2. South Lanarkshire Council Planning & Development Department
3. Glasgow and Clyde Valley Joint Planning Group
4. Lanarkshire Development Agency
5. North Lanarkshire Conservation and Greening Section
6. South Lanarkshire Biological Records Centre

7. Scottish Natural Heritage, Lanark area office
8. Scottish Environmental Protection Agency
9. Central Scotland Countryside Trust
10. Kelvin Valley Countryside Projects
11. Clyde and Avon Project
12. Scottish Wildlife Trust Cumbernauld Greenspaces
13. Scottish Office Agriculture, Environment, and Fisheries Department
14. Farming and Wildlife Advisory Group
15. Scottish Greenbelt Company
16. West of Scotland Water
17. Clyde Fisheries Management Trust
18. Scottish Coal
19. Scottish Wildlife Trust, Lanarkshire area survey team
20. Scottish Wildlife Trust, western area Officer
21. Botanical Society of the British Isles
22. Hamilton Natural History Society
23. Clyde Bat Group
24. Clyde Badger Group
25. Scottish Ornithological Club
26. Individual recorders

1. North Lanarkshire Council Planning & Development Department.

The remit of the Planning and Development Department (PDD) includes two significant elements which use biological information, development control and nature conservation strategy. Development control deals with planning applications and involves an assessment of a proposed development site in all its characteristics including its wildlife interest. Environmental Impact Assessments are more detailed reports, required by the planning process for certain larger schemes and are provided by the applicant. The PDD requires skills in evaluating EIAs and, if necessary, in corroborating the information.

Nature conservation strategies have a different emphasis, they are based on a general survey of the whole area and policies to identify and protect (where possible) significant sites. North Lanarkshire is progressively harmonising the different strategies inherited from preceding local authorities. For these and other purposes they depend on data and evaluations provided by others especially the Conservation & Greening Unit of the Council which operates an LBRC. North Lanarkshire PDD is also fully involved in the LBAP process. Undoubtedly they will have a major coordinating role at least in the LBAP and will directly and indirectly be involved in information-gathering as part of this process.

Other, more general, information comes from a variety of sources including, SNH and GCVJPG. Information is being assembled on a GIS system within the PDD. This information includes, for example, SSSI/SINC boundaries, peatland sites, vacant/derelict land boundaries and descriptions. The following areas of interest were identified by the PDD as being of particular interest.

In Lanarkshire, the PDD shares a growing interest in the economic strength of the agricultural sector of the area and this may well involve assessing the benefits of conservation funding (CPS and other schemes) through governmental support schemes. This will lead to development of information about farm holdings and economic factors and the possibilities to maximise grant claims for wildlife improvements.

Ancient Woodlands, the situation for this habitat, special in the Lanarkshire area is being assessed through CSCT in which the PDD has a significant role. Woodland Grant Schemes: the 'Challenge Fund' initiative has prompted a large number of potential developments. These require assessment for approval from (which, in turn, needs input from C&G). Tree Preservation Orders, which protect

significant trees, vary in application across the Council area and their designation principles require review/harmonisation. Peatland is a significant habitat for North Lanarkshire which, as elsewhere, is under pressure from development. This will require sufficient information for a strategic assessment to allow effective control. Amphibians are a significant element in the area related especially to the colonisation of derelict sites. The Bean Goose Working Group, which includes the PDD, has responsibility for conservation of this key species in the area. Greenbelt areas, the designation of greenbelt areas needs to be reinforced by a better understanding of the habitat, features and function of the area. Geological Interests; the hard rock characteristics of North Lanarkshire will continue to be significant in terms of economy and land use. There will be a need for a better understanding of geology and geomorphology. Management of Wetlands, especially in view of flood control, as well as significance in ecological terms, is going to be a strategic issue. SEPA will undoubtedly be involved in this. Statutory guidance in the form of 'SUDS' drainage manuals are to be published next year and will guide flood management schemes possibly extending to habitat creation etc.

Information Needs

The PDD uses and need a lot of indirectly accessed information. They are developing, through their GIS system, a primary system that will hold land use/habitat survey data, site boundaries and site designation information sets. A data review process is underway in North Lanarkshire PDD, which both summarises existing holdings and identifies future needs.

Current holdings are

Tree Preservation Orders - A4 record sheets
Basic map resources including mineral activity
Landscape characteristic - reports
(Aerial photographs etc - no direct access)
(Information formerly held by SRC has not been distributed between successor councils)

Future information needs

A North Lanarkshire Planning and Development Strategy is being developed for publication in 1999. In light of the new council's formation from general previous organisations with different emphases on nature conservation issues there is a need for further data to develop a common baseline information system. This relates both to development control and to the more general nature conservation strategy.

An expanding range of strategies in North Lanarkshire is involving the PDD in an ever-widening set of issues that need biological information. Prime amongst these are LBAPs, mining/waste/derelict land issues, greenbelt and woodland issues, water, flood control and wetland issues. The involvement with LBAP, especially, has promoted a need for educational work to generate greater public/school awareness. More general North Lanarkshire Heritage leaflets will publicise local wildlife issues.

The PDD already utilise shared information networks effectively, but undoubtedly would benefit from improved efficiency of information searches especially for development control and related activities. Many of the developments outlined above have a key role for the PDD in particular, and all use information which has common characteristics. The PDD would benefit in terms of quality of decision making and speed and ease of operation if there was a shared information system.

2. South Lanarkshire Council Planning & Development Department.

This body, like its counterpart in North Lanarkshire, carries out a number of functions governed by legislation, including development control and strategic planning. There are also series of initiatives like the LBAP. The development control process within the Planning Department involves the environment section staff supplying the development control section with information on the wildlife

value of any area subject to a planning proposal. This is often at short notice and requires good access to information about sites and to a means of providing an estimate of the site's value in local or greater, terms.

A series of habitat surveys of areas around towns have been commissioned by the Planning Department to develop a better understanding of the wildlife of areas likely to be under greater pressure of change. These surveys are not currently combined in any way that would integrate the information. The Department is currently undertaking a review and rationalisation of the 17 local plans, which they inherited from the preceding local authorities. The intention is to develop one unitary plan for the council area.

This process includes a review of the local wildlife sites system, (SINCS), which is currently inconsistent across the area. Possible future changes in the administration of SSSIs, and an enhanced interest in LNRs will have implications for local expertise in the future management of such sites. This will add to the need for good levels of information of quite a detailed kind.

This Department is also playing a significant part in the development of the Lanarkshire, LBAP. In particular it is involved with preparation of the Biodiversity Audit which reviews the status of locally important species/habitats. Other planning involvement includes: -

Forestry developments; the Department has a consultative role with regard to applications under the Woodland Grant Scheme and therefore needs local information to base approval on. The council supports FWAG but is not involved in the individual schemes being conducted by FWAG.

The Council is developing a Countryside Access Strategy to promote positive recreational use of countryside around towns; this will include long distance walking routes, local access from urban areas (Paths for All project) and an environmental education element. All this will require biological information on local features to allow avoidance of disturbance to sensitive areas such as SINCS as well as to help with information about the areas being promoted for use in environmental education. An idea is currently being considered for a 'Greenlinks' database which would hold information about the urban areas such as school grounds, parks, paths etc. and urban fringe areas.

Information held in the Planning Department includes habitat surveys (Phase One) covering the Clyde and Avon Valley Project area, the Clyde Caldera Project area, East Kilbride District Council area, Hamilton area, Carluke area and the Biggar area. More surveys are intended. A Landscape Character Assessment survey covers the area; it consists of two reports with a series of management guidelines outlining ways to conserve landscape character.

Future needs identified include:-

The recent (Scottish Office) Planning Policy Guideline PPG9, will increase the importance attached to local nature conservation measures and therefore require greater knowledge of the importance of local sites and species. A forthcoming PPG on LBAPs will increase this need yet further.

National and European legislation relating to the principles of Sustainable Development will continue to grow in influence on local authority Planning Departments (as it will in many other fields). A greater degree of regulation through the use of Environmental Impact Assessments will require more expertise and information to allow more rigorous environmental assessments in future years.

The Planning Department already has a network of contacts to provide information and to share in evaluations. However, they are aware that there would be benefits in economies of scale from participation in a Local Biological Information Centre. It would better able to meet their needs for information to deal with legislation, planning guidelines, national strategies and local initiatives. Equally, the ability to integrate their own commissioned surveys and combine them with other data-sets would give a greatly enhanced resource to support nature conservation throughout the area.

3. Glasgow and Clyde Valley Structure Plan Joint Committee- GCVSPJC

This organisation was formed at local government reorganisation to provide a cross-council area mechanism for coordinated planning of a special development framework. Its role and policies are still developing but there is the intention to incorporate within this framework some form of 'sustainable development' principles in line with government policies. There will also be a focus on a 'Green Network'; a mechanism for identifying, integrating and protecting the natural heritage framework, urban greenspaces, greenbelts and river corridor systems (including wetlands and rivers).

Information sources. Little if any biological information is currently held within GCVP. It is expected that such resources will come from other organisations, notably partner councils. There is material on landscape features but not including biological information; the main interest is in size, location and possible landuse characteristics.

There does not seem to have been any distribution of any material held by Strathclyde Regional Council. There should be a significant amount of information from the Strathclyde Regional Council studies used for the ecological guidelines and other aspects of Strathclyde Regional Council's planning work.

Future developments, as the work of GCVJPC progresses are likely to strengthen their involvement in conservation, primarily through BAP issues and possibly through SNH's Natural Heritage Zones. The interest in indicators and targets initiated by Strathclyde Regional Council's work on this subject is being maintained. New measures are being developed by the Environmental Topic Working Group and woodland habitats in particular, are included in this work. This could lead towards a focus on species and habitats on a strategic level and thereby justify GCVJPC's support for biological information gathering.

4. Lanarkshire Development Agency

Lanarkshire Development Agency is concerned primarily with promoting, and assisting in, the economic revival of Lanarkshire. Within this objective, it recognises the need for environmental enhancement in the broader sense, including rural area revival, reclaiming dereliction, making Lanarkshire a more attractive area for living and working in, some parts of which may be interpreted as supporting nature conservation initiatives including biological information systems. Notwithstanding this broad view, any developments seeking Lanarkshire Development Agency support must demonstrate clear targets within the framework of achievement criteria. In essence, does biological information gathering help boost appreciation of Lanarkshire's environment?

Promoting the reuse of derelict land is a major concern for Lanarkshire Development Agency through the Derelict Land Strategy. A number of derelict areas have developed wildlife qualities, which require identification and evaluation during the planning process. Development initiatives increasingly need to include measures for damage avoidance or mitigation.

It is accepted that there will be surplus derelict land which can find new life as wildlife areas. For these areas, biological information can help devise ecologically appropriate developments in ways which are more successful and cost efficient. Other forms of landuse are also of interest to the LDA. They are developing, for example, a general interest in Lanarkshire's rural economy which may lead towards new activities or landuse which could impact on wildlife conservation.

Information Use. Much of the information acquired and used by Lanarkshire Development Agency relates mostly to derelict land issues. Numbers of surveys are commissioned ranging from Phase One land surveys to site or species (e.g. Badgers) studies. Some of this information ends up in the Derelict Land Register maintained by the local authorities; much, however, remains in the original form of survey reports of which there are probably a great many. They are not integrated, properly,

catalogued or even easily accessible. A proportion of these reports will have been copied to other relevant organisations, e.g. Councils/SNH, but the opinion is that a significant amount of biological information could be unused within these reports.

Information needs. In the immediate future Lanarkshire Development Agency will continue to have an involvement in the LBAP process and, in a wider context, sustainable development. With regard to the LBAP process, Lanarkshire Development Agency has a particular interest in those species and habitats which impinge on the derelict land issue, and more generally, in supporting the LBAP process as it relates to the wider objectives of improving Lanarkshire's environmental attractiveness. Lanarkshire Development Agency already have involvement with, and sometimes fund, a number of local organisations including some involved in biological recording e.g. CSCT, Clyde Calders. As well as environmental enhancement, environmental education is a possible future point of contact with Lanarkshire Development Agency.

5. North Lanarkshire Council, Conservation and Greening Section

This is an effective LBRC providing biological information for a number of core purposes in North Lanarkshire. The centre staff actively collect field information as well as accepting records from other sources. All information is transcribed onto record sheets most of which are then filed in geographical order; they may then be transcribed into the species files or, more recently, into Recorder database. A lot of material is not yet processed in this way including material in field notebooks and consultant survey reports. There is an obvious need for some catching up of data-processing work.

The major sets of species information include plants (and fungi), birds- especially wetland species; butterflies, moths and mammals. Fish are recognised to be under-recorded.

Site information is mainly based on information gathered from other sources and surveys e.g. SSSI's, SINCS, and it includes sites identified through the KVCP. Much information is stored in separate files. Sites in Cumbernauld and Kilsyth, part of Strathkelvin, Monklands District and Community nature parks. Country Parks within North Lanarkshire all have their own information registers (with copies in NLBRC). Landscape features of particular interest include bings and derelict land. Phase One survey information for North Lanarkshire is complete but ageing.

The centre is involved in frequent consultations over development control and woodland grant schemes, some of which are supported by CSCT. This category of work can be as frequent as 2/3 items per week and frequently involves site surveys.

The centre also participates in the development of the Council's Environmental and Nature conservation Strategies and plays a prominent role in the development of the LBAP process. A biodiversity audit for North Lanarkshire was carried out in 1998 by this centre.

The centre is involved with a number of conservation activities in North Lanarkshire generally as a provider of information but also as a source of expertise. These activities include railside nature conservation with Railtrack, restoration programmes under the local authority minerals policy, and the LDA 'greening Programs, survey and conservation work at Ravenscraig, with open cast coal companies via contact with their consultants. In addition to providing information and advice re planting proposals for woodland schemes, there is also a role in advising on management and development of woodlands on Council owned land as well as the Local Nature Reserves managed by the Council.

Future needs. The centre has a significant percentage of the total biological information in North Lanarkshire and has an established role in gathering information and providing advice and

assessments. To meet present needs, as well as future ones, there is a clear need for extra staffing support to fully develop the centre's information base.

The LBAP process is well established in Lanarkshire generally and within the current area of operation of the NLBRC there is a considerable amount of work involved in surveying and monitoring the species/habitats selected by the LBAP process. Much of this will end up within the NLBRC. Some of the current interests include Peatlands where there is a need for a review of the total peatland habitat (something Scottish Natural Heritage have on their priority list) lapwings and water voles. It is likely that NLBRC will be the depository for all data on LBAP species and habitats

This centre would obviously be at the core of any redevelopment of a Biological Information Service for the area; its role as advisor to the local authority would be enhanced by having convenient access to the wider amounts of information as well as more efficient operation of its own systems. This would enable it to make available its own information more easily.

6. South Lanarkshire Biological Records Centre

Biological records have been collected over the past several years at several of the area's Country Parks, now within the Community Resource Department of S Lanarkshire council. The major information holdings are at Chatelherault CP with lesser, but active collecting at Calderglen CP. Current topics of interest include a revised bank vole survey and ongoing site surveys.

The ranger service has a new remit, which gives them an interest in the wider countryside, and so their use of biological information will expand beyond their current country park boundaries. Responses to planning applications are generated by different parts of the Ranger service according to areas and local knowledge.

Species information is held, mostly on paper file; groups include larger lepidoptera, badgers, squirrels, plants (including aquatic plants of the Low Parks area). Files on sites include the Country Parks themselves which are on a database (Recorder) and divided into compartments, and other designated and local wildlife sites.

In the future it is anticipated that there will be a need for greater amounts of information to help the service contribute to the LBAP as well as to give further comments for development control and other planning purposes. The monitoring and management of their conservation work on sites will increasingly require to be based on more extensive knowledge.

7. Scottish Natural Heritage - Lanark Area Office

Scottish Natural Heritage (SNH) has a statutory remit covering a number of wildlife, environmental and sustainable development issues. With the context of Lanarkshire the following functions are relevant. Scottish Natural Heritage advises on planning applications and similar matters; it advises and collaborates on wider nature conservation strategies. It has a special statutory responsibility for the protection of certain species and habitats protected under British and European legislation.

Information is used by Scottish Natural Heritage to contribute to the development control process, for statutory consultations over SSSI's etc., and for other sites with conservation interest. SNH play a substantial collaborative role with local authority nature conservation strategies. Other activities that involve the use of information include consultation work over WGSs, ESAs, and CPSs and has liaison arrangements with SEPA and FWAG

SNH Lanark Area Office has the largest amount of information, including Habitat surveys of areas within the southern upland area (in the years 1988/89/90), upland bird and bird community data, including data from other sources e.g. SOC bird counts.

A badger survey is ongoing.

Generally, information on species is focused on significant species e.g. raptors, waders, fish-eating birds, vendace.

Bat protection forms a significant component of workload in this area.

Site information is of a varied kind including SSSIs, local wildlife sites, bings, raised bogs, woodlands, uplands, grassland sites and lochs.

Local species and habitat information is used to guide management work on SSSIs and NNRs though this could benefit from greater access to more detailed knowledge. There is a constant demand for information from schools and universities, notably on topics such as 'badgers of the Clyde Valley' and geomorphology/geology.

SNH has the main statutory wildlife protection duty in the area (under the Wildlife and Countryside ACT 1981) looking after statutory sites and protected species including, in this area, the orchid *Epipactis youngiana*, bats, badgers, and raptors. In each case they may be assisted by the relevant voluntary organisation that may take on some of the practical aspects.

Future needs for information will expand in the light of the LBAP process which will generate need for more detailed information especially on priority habitats and species e.g. bogs, woodlands (both primary and second levels) and their species compositions. Development control work will continue to require higher quality information using more surveys and species/habitat evaluations. This will also apply to CPS and WGS schemes and to the work of CSCT. The Natural Heritage Zones concept is becoming of greater interest and will generate a need for more local information over the next few years.

Scottish Natural Heritage, being a prime producer and user of biological information, would benefit particularly from an LBRC. They have a lot of background information (especially in the form of survey reports) which could be brought into use if it was integrated into a local information system. They exchange and share information with several other organisations; this activity would be more efficient and effective if a standard system for data integration was adopted. The nature of future initiatives especially through the LBAP and also the many other schemes are all going to demand an advance in access to, and integration of, local data sources. Scottish Natural Heritage is already progressing towards electronic data systems including GIS (though the greatest proportion of data is in file form) and they would be supportive of an LBRC.

8. Scottish Environmental Protection agency (West area)- SEPA

SEPA has a wide and evolving responsibility for environmental protection. The area where it currently makes most use of biological information is in its monitoring of water quality. It does this to provide an annual assessment of river quality on a Scotland-wide basis. It also uses this method to investigate the impact of individual discharges.

Occasionally, more general habitat assessments are produced to help assess planning applications where these relate particularly to discharges into water bodies or re-routing of watercourses.

The routine work of the water quality monitoring involves sampling of the fauna of rivers and identifying the species gathered to certain levels of identification sufficient to allow a water quality assessment. Most of the information concerns aquatic fauna but a small amount of information on aquatic plants and diatoms is also gathered. For certain projects a more complete identification is conducted. The experience of the staff allows unusual species to be picked up during the routine analysis but the system is not geared to giving much time to further investigations into the ecological aspects of these finds. Occasionally, notes of interesting species etc. are written up for local natural history publications e.g. The Glasgow naturalist.

A great deal of material is collected (around 1000 samples per year); the analyses for each is recorded on a standard form and all forms are kept on file. An electronic database system (STARRS) is being introduced which will keep these records in future and, it is anticipated that information back to 1990 will also be entered.

At present this is a self-contained operation which produces information sufficient to assess water quality. A lot of specimens are collected which would be of interest to the conservation bodies but currently cannot be fully examined and analysed.

Future needs for information are very likely to expand in light of the EC's Water Framework Directive. This is due to be introduced in 2002 with implementation in various stages in the following years. It will progressively require greater amounts of information of different kinds. It will expand beyond the water edge to include riverbanks and margins. It will involve greater collaboration with other organisations with responsibilities for protection of the environment.

As SEPA's role in environmental protection develops in coming years, especially in the direction of land contamination, it may well require more information about terrestrial species and habitats. There is an obvious connection here between SEPA and the several existing organisations involved in this sphere.

These major policy shifts apart, there is the obvious benefit to be gained from access to information held in other organisations concerned with river and water margins. These are summarised in the theme section.

9. Central Scotland Countryside Trust

CSCT's remit is based on assisting with the environmental regeneration of central Scotland though this must take account of economic, social issues by considering community training opportunities and by targeting involvement work on land restoration, areas around housing and old industrial land. The main objective is to double the area of woodland cover in 20 years (includes all types of woodland). This is an increase from 17,000ha to 34,000ha and requires an annual target of 850ha. The area covered by the Lanarkshire Team includes North Lanarkshire and the northern part of South Lanarkshire. CSCT is a major part of the Central Scotland Forest project; it is sponsored by the SOAEFD and financed through Scottish Natural Heritage.

The information base contains mainly mapped information identifying significant sites, landscape designations. The Directory of Information is a series of maps which were produced in 1990 to record details of coverage of other surveys including Phase One surveys, SOC bird surveys, bing surveys and ancient woodland. This is used by CSCT to identify further sources of information about target areas. It has not been updated since 1990.

The growing interest, over the last couple of decades, in bog habitats as areas of conservation interest conflicts with pressures to use such land for forestry and has led CSCT to establish a Register of Heritage Sites to identify areas where conservation has a greater priority than previously.

The Central Scotland Countryside Trust does not maintain information on any species as such. It recognises though that management principles for woodlands will advance through the recent Native Woodlands Action Plan and it may become a requirement to manage woodlands for particular species which would require some species distribution and ecological information. CSCT participated in the Native Woodland Resource Assessment which follows methodology used by the Land cover of Scotland survey (1988) survey but adds in historical information and an evaluation of the site's local significance.

Information files are kept on sites which are either identified as possible planting sites or those already under development, these sites include Heritage Trails such as Avon Heritage Trail and North

Calder Heritage Trail. The level of information used in the site assessment procedure has not been very detailed in the past but the system is evolving. The level of information required for the WGS is the minimum but more detailed information is acquired if there are particular reasons.

CSCT has contributed to some local Phase One type surveys e.g. Falkirk and North Lanarkshire. It is also, like several other organisations, developing a GIS system which will hold site boundaries and site designation details. The intention is to draw in further details from other sources. Central Scotland Countryside Trust's future information needs will continue to be acquired largely from external sources and by their own commissioned contracts which amount to 2/3 per annum on average with expenditure in the thousands of pounds.

Future Needs Whilst CSCTs remit may not change in principle over the coming years, the amount of woodland managed by them will increase in both quantity and quality. The earlier focus on 'opportunistic' planting in odd places will give way to a more sophisticated plan based on more detailed information about local woodland qualities in general and the sites in particular. This will encompass indicator species for woodlands, local grassland/bog sites and species to be conserved, and a greater understanding of ancient woodland qualities, for example indicator species. The involvement with BAP species and habitats will bring more complexity to their work and require more information especially, but not exclusively, about woodland habitats.

CSCT, through their Directories and Registers already recognise the necessity for information pooling and would support the proposals for a Lanarkshire 'centre'.

10. Kelvin Valley Countryside Project

The Kelvin Valley Countryside Project has a general remit to promote conservation, environmental education and public recreation in its project area which follows the Kelvin Valley through Strathkelvin and part of North Lanarkshire. Kvcp has developed a conservation strategy for the project area, which includes Easterhouse leisure belt project, and this forms part of the local authority's local plan policy. Development control is occasionally responded to in cases within the project area; in which instances their own files and reference material is consulted.

The Kelvin Valley Countryside Project used biological information to guide its development work on sites in which it sets up project work. These sites include working with farms though mostly confined to field boundaries and river margin issues.

The area has been covered by a Phase One Survey generally considered adequate for work to date. Interest in river quality has led to surveys of fish populations, water quality, and impediments. Kelvin Valley Countryside Project uses bird information from SOC's Clyde Area Bird Report but generally they have little species based data, referring mainly to Scottish Natural Heritage for any such information with regard to sites and the wider area, they have a Phase One Survey and the SINC's report for the area.

Sites which KVCP are working on, do have associated files (though without much biological information). They do have some interest in road systems in terms of trying to influence road planting schemes. Derelict land sites derived from the Derelict Land Register (Glasgow Development Agency) provides suggested sites for Kelvin Valley Countryside Project work but these files do not generally contain biological information.

Future Needs. As KVCP has a particular remit for river and riverside issues it expects to contribute accordingly to the LBAP process with special interest in reed buntings and wetlands. The interest in river margins might connect to the survey programme of the CFMT.

They would also have a continuing need for site specific information regarding the sites they do or might work in. This involvement would require better baseline information to provide local evaluations of priorities and to allow changes to be monitored

KVCP have not engaged in formally passing on information to others, though there is a general acceptance that, for the future, any useful information should be transferred. They support the idea of a Biological Information Centre to give improved levels of information for their own work and also to generally raise the levels of information available across the area for conservation and education purposes.

11. Clyde and Avon Valleys Project

This project has its roots in the Clyde Valley Woodlands initiative of 20 years ago, whose aim was to safeguard the natural/semi-natural woodlands of the upper Clyde Valley. This became an objective of the local planning authorities who set up the project to carry forward the detailed programme of conservation work. They currently focus on the woodlands of the Calder Valley (Calder Valley Woodlands Initiative) where Ten woodlands, collectively designated as a Special Area of Conservation, are being worked on; with conservation plans based on biological survey information

Within the project area (which is within South Lanarkshire) CAVP has a role in commenting on development control issues, which have recently included housing developments; road realignment and Woodland Grant Schemes. There is also some lesser involvement with farm planning. CAVP are involved in establishment of the Clyde Walkway which, in their area, crosses three SSSIs.

The information resource held by CAVP includes a Phase One survey of the project area. The target notes from this are held in electronic text form with searches for species information being carried out by a word search method. Previous Phase One surveys were acquired by contract, the existing woodland projects have used students from the university of Strathclyde and Bell College. Surveys in connection with the Clyde Valley Walkway project have been commissioned.

Site Files on the project's woodlands are maintained (numbers?) but only on those on which work is being done, or planned. Within these files most emphasis is on management work activities' biological information is coincidental. Information is currently sought from, and exchanged with, Scottish Natural Heritage.

Future Needs. Woodland management projects (existing and future) are the primary issue for CAVP and need good levels of biological information to enable correct decisions. The changes in their nature need to be monitored. In the future this would benefit from being conducted on a more systematic and detailed level.

Other specific projects arise from the project's remit. For example surveys of fish-eating birds are being undertaken in advance of possible increases in levels of fishing in the future. Herb Paris is a significant local plant species whose habitat is in the natural woodlands; a detailed study of its ecological requirements is being planned.

CAVP like other similar projects has a strong public education role and therefore uses biological information in its educational activities and publications. They would be content to share information and would benefit directly from an LBRC which they also see as a general benefit to conservation.

12. Scottish Wildlife Trust- Cumbernauld Greenspaces

This organisation's remit is to manage a series of wildlife areas in the Cumbernauld area and to engage in environmental education in connection with those areas. These sites were bequeathed to the organisation at the time of dissolution of the Cumbernauld Development Agency. Some monitoring local planning applications is carried out, this being in conjunction with the SWT area officer who has a wider geographical responsibility for this function.

Information held by Greenspaces is in the form of spreadsheets on computer and not immediately easily transferable. It covers mainly the Cumbernauld New Town area and relates mostly to their own sites. There are additional records for birds, mammals and some insect groups, mainly butterflies and ground beetles. The objective is to develop lists for all Greenspace sites.

13. Scottish Office Agriculture, Environment and Fisheries Department- SOAEFD

SOAEFD is a government Department with duties connected with implementing government policy on agriculture and fisheries matters. They have a growing interest in the environmental aspects of these two sectors but much of their interest is confined to support for environmental projects through the varied schemes such as Environmentally Sensitive Areas (ESAs), Countryside Premium Schemes (CPS) etc. SOAEFD comments on development control matters, which affect prime farming land over 50ha and in other cases if there is a significant affect on farming. Other statutory nature conservation duties are carried out by Scottish Natural Heritage.

In conjunction with FWAG and the Scottish Agricultural College they support the farm planning projects, Woodland grant Schemes and the Farm Woodland Premium Scheme. Their monitoring of any conservation concern over any applications under these schemes is limited to ensuring that they do not conflict with any existing conservation agreements.

The Environmentally Sensitive Area scheme, which covers a large part of South Lanarkshire, (about 2,700 sq. km) has been in operation for about 5 years. It encourages conservation of a number of important habitats on agricultural land by encouraging the use of sensitive farming methods to reduce damage to those habitats. It specifically promotes the conservation and regeneration of heather, moorland and woodlands, wetlands, water margins and herb-rich grasslands which are identified as conservation targets. The ESA scheme requires applicants to produce maps and descriptions of their proposals as parts of a Farm Conservation Plan.

The CPS applies to land outwith the ESA. Financial support is given to farmers who adopt one or more specific conservation options to conserve and regenerate habitats similar to the ESA scheme. Again, woodlands, uplands, heather and species rich vegetation, wetlands, grasslands for birds etc are identified habitats. Each CPS application scheme requires a conservation audit and possibly a moorland management plan. These provide an inventory of existing conservation values as well as a description of the intended developments.

Assistance with production of Farm Conservation Plans (ESA) or Conservation Audits (CPS) can come from several sources but the most common source is through FWAG and, to a lesser extent, through SAC. McAulay Land Research Institute, under contract to the Scottish Office, monitors the effectiveness of the ESA scheme. Individual farm plans are not currently made public; however it is possible that summaries of progress and successful conservation work could be published.

To carry out their assessing work SOAEFD have the following sets of information. Archaeological features maps, SSSI boundaries files, and water catchment details (from water authorities). Apart from this, only the information included with grant applications is available. A database of basic information about applicant farms is maintained. Most internally generated or commissioned information is confidential.

The work of SOAEFD is defined and constrained by Scottish Office Policy and would change only as that policy evolves. They are not likely to develop any greater involvement with development control issues and this may even decline. They will continue to provide comments on local plans and native conservation strategies in line with the enhanced interest in environmental matters with ESA and CPS work. Although LBAPs are a governmental initiative 'fostered' by the Scottish Office, the current level of involvement of SOAEFD is minimal, extension of their role in LBAPs is a matter for central policy decision.

The bulk of SOAEFD's future biological information use is likely to be through the use of FWAG/SAC to advise on suitability of farm plans and also through use of McAulay Land research Institute (MLURI) to monitor the ESA scheme. An effective biological information system would probably be most effective in helping MLURI to have a better understanding of the general area within which their targeted monitoring occurred.

14. Farming and Wildlife Advisory Group- FWAG

FWAG's main function is to give advice, on request, to farmers about wildlife improvement and related grant schemes such as WGS, Farm Woodland Schemes, CPS & ESA.

The assistance given involves a short site visit and a survey of the whole farm using a 1:10000 map on which is marked habitat information, using a simple 'scheme', and any notable species are also indicated. This survey forms the basis for proposing conservation actions such as woodland planting or habitat restoration. If these suggestions are accepted by the farmer then a submission for grant aid is made under the appropriate scheme- ESA or CPS. This process tends to be self-contained, though, for any obvious natural features which require further biological information, there is contact with Scottish Natural Heritage.

The principle of confidentiality, which is important to the FWAG -farmer relationship, means that, under present circumstances, no information about the farm or the survey can be passed from FWAG to any other body. It is recognised that the surveys could be enhanced by access to more detailed survey information from other sources but there would be problems if this information came from sources which had acquired data without farmer's consent.

FWAG's information on farms is stored in a paper based filing system with folders for each farm with which there is contact. These folders contain the survey map with annotations and any documents relating to the proposals for wildlife enhancement. There is no summary information and, at present, no preparation of statistics relating to proposed changes e.g. area of new woodland, new habitat creation etc. Technical files hold any other information about surveys grants etc.

Outwith this farm advisory function there are other aspects of FWAG's work which might use biological information such as inquiries from the public, (which are of a general and non specific nature) and participation in initiatives such as LBAP's. Further involvement with the LBAP could lead to FWAG being involved with wider surveys and information work. If they were to be the lead agency for a species or habitat this would involve gathering of appropriate data as part of it.

Information Needs. More general information is needed for present work and for LBAPs as described above. They would benefit from higher quality information. Confidentiality limits access to other sources of information. Information is most likely to remain in present form. There is some opinion from other sources however, that over the next few years, changes in the degree of public scrutiny of these farm conservation plans where grants are involved may lead to a more open system.

15. Scottish Greenbelt Company

This organisation had its origins in the interest in Strathclyde's greenbelt areas that was being pursued by Strathclyde Regional Council, local District Councils and SNH in the late 1980's. It has expanded greatly beyond that remit and now operates across Scotland in providing expertise in redevelopment of derelict and contaminated land.

In Lanarkshire they are involved in work on a few such sites, for example at Hallside, the site of a former iron works. The site redevelopment generally involves some remedial work on damaged or contaminated ground to make it suitable for further use. The range of development options cover housing, industrial use, and, to a lesser degree, woodland planting. This latter use can be for landscaping, or as in the Halcross case, for biomass planting.

Surveys are carried out on candidate sites, but are said to be brief and low level though they include a search for any record of site designation or description of wildlife interest. These reports are kept on file but are said not to contain any significant or useful biological information relative to other sources.

Currently, there are some biological studies supported, these are investigations into the suitability of various varieties of trees for growing on contaminated ground. Opportunities do exist for follow-on surveys to establish the effectiveness of other parts of their work such as woodland creation, grassland regeneration etc. These are not presently undertaken but may become more significant as the company's range of interests expands.

SGC will not, as presently envisaged, require a greater detail of biological information because its basic functions are generally concerned with making land ready for re-use. It will, however, probably move towards a situation where it makes more use of such information in its site planning process. Access to local information about locally significant or priority species /habitats to influence the choice of species for planting or vegetation schemes would be one such development

The Scottish Greenbelt Company is likely to expand its scope of activities over the coming years and so may include habitat surveying and environmental assessments in its services. This would continue to include contracted out survey work since the use of consultants to provide specialist skills is a part of SGC's normal process. It would be an advantage to the SGC to have access to a comprehensive information network making their information searches more thorough and more straightforward.

16. West of Scotland Water

This organisation provides water supply and waste-water treatment across West Central Scotland and is responsible for large water catchment areas. They have recently set up an environmental section to be responsible for introducing new environmental performance measures, compliance with EC regulations and other related work. Much of their existing environmental work focuses on water quality through chemical analysis and algal studies.

A significant new area of work concerns the environmental assessment of water catchment areas and this involves habitat surveys, landuse characteristics, woodland planting and public access. This is a very substantial issue; it has commenced with surveys of Loch Katrine's catchment area and will be extended to cover the rest of their area including Lanarkshire in the next few years. Liaison is already active with RSPB (over upland bird populations, the Deer Commission, SNH, and SWT).

WoSW are also involved in Water watch Initiative which brings them into the Local Agenda 21/ sustainable development arena. In the coming year they plan to be in contact with all local authorities and environmental groups about water conservation issues.

17. Clyde Fisheries Management Trust- CFMT

CFMT was established in 1983 following discovery of the return of salmon to the Clyde. It represents 16 fishing clubs in the Trust area which runs from the source of the Clyde down to the Erskine Bridge. It is part of the West Coast Fisheries Trust which is, in turn, one of 6 Scottish Trusts each committed to protection of fishing interests and promotion of measures to protect and conserve fishing stocks. This interest has progressively extended to a more general interest in conservation of river and river margins. The Trusts have shared in the development of a Scottish Freshwater Coordination Centre at Faskally, Perthshire which is developing an information system to carry data from all the Scottish areas.

Their remit leads the CFMT to participate in the local planning matters through the development control process, using knowledge of members or calling in expertise as needed. They are also involved in practical work to improve river systems for their target fish species by habitat management, tackling pollution, removing river obstructions etc. Some current work involves supporting local efforts to encourage and assist farmers to undertake woodland planting schemes and using 'set-aside' to reclaim stretches of river bank.

The CFMT, being a fairly new organisation, does not have much historical information or previous survey material and the few surveys that have been carried out are not collated. Attempts to gather together existing information e.g. from naturalists' sources have not been made. As part of the programme to develop an information base they are planning to join other Fishery trusts in employing a biologist to carry out a substantial local survey programme which will include habitat studies of rivers and their margins, adjacent land use, fish populations (through electro-fishing) and water quality indicators. A document describing this programme and methodology is available. The information will eventually be put onto the GIS system at Faskally.

The information would generally be available for local conservation purposes but access would be firstly through the surveying biologist and ultimately through the Faskally Centre. It is obvious that this will be a significant information source with wider application than the immediate purposes of the CFMT and of interest to a number of organisations sharing an interest in the water resource.

18. Scottish Coal.

A newly created post of environment officer has a remit which includes site assessment for both new coal sites, and, increasingly, for environmentally sensitive restoration/mitigation work relating to previously worked areas. This interest extends to nearby areas especially adjacent watercourses for possible environmental impacts. Also included are haulage routes, either between coal sites, or to nearby transport terminals.

This studies result in a series of site based investigations which often include commissioned surveys. They are essentially habitat and species surveys and the information remains as a series of reports without any further integration of the data. There is currently no summary information about number of sites or area involved. The information is treated as generally confidential up to the point of any public decision-making when it becomes public. However, information required by SNH or local planning authority would normally be given to them.

Restoration work increasingly has a wildlife element with habitat reconstruction a factor. Wetlands and bogs are recognised important habitats for consideration, especially in relation to bird species. RSPB are consulted and are currently writing up reports on restoration projects in Scotland.

Background information needs include mapped information about boundaries and nature of any site of significance, particularly those, which impose constraints on developments such as SSSI, SINC's or LWS. Information of particular interest includes birds, all protected species (Schedule 5), aquatic invertebrates, fish, Phase One and NVC surveys of selected sites. For restoration/mitigation work, a greater degree of in-depth information about possibilities and desirable options would be of benefit. This would include more information about species/ habitats of concern, in particular, the habitats and species identified in the LBAP process .

Data gathering; some work is done in-house, significant amounts of work are commissioned directly and some information is obtained by exchange with other coal mining firms.

The benefits from access to an LBRC include:- it would allow more efficient information searches, increase the quality of information available, It would be of advantage if Scottish Coal adopted a species or habitats as part of the LBAP process. Participation in this would require policy decision from higher levels. [The Planning Manager, West Scotland]

19. Scottish Wildlife Trust- Clyde Valley Survey Team.

This organisation was established to provide a surveying service in the Clyde area. This allows the SWT to develop its wildlife sites programme. In addition it also provides training/ work experience for surveyors. Most of its work is generated through contracts with South Lanarkshire Council who have commissioned a series of habitats surveys of areas within South Lanarkshire. They variously use Phase one, Phase two and NVC methodologies. The maps and reports derived from these surveys are lodged with SL. Council. In addition, the team carries out other work, which includes surveys on both SWT reserves and other sites.

Survey information is held in the form of maps, reports and statistics. There is also an electronic database called Habpro, which holds Phase One habitat survey information. A second database system designed to hold information about SWT Listed Wildlife Sites exists but is currently unused.

Most of the information held by this group is about vegetation features derived from their survey work. The surveys have also allowed a long list of sites of potential wildlife interest to be drawn up

Future developments are most likely to focus on further survey work at the direction of S Lanarkshire. Other activities are likely to be related to SWT's policies and focus on the Listed Wildlife Sites.

20. Scottish Wildlife Trust- Area Officer

The SWT has a number of regional officers to carry out activities on behalf of the organisation by involvement with conservation issues, including commenting on planning applications and nature conservation strategies. They also contribute to other activities, especially to the LBAP process and to public environmental education.

The information needs for this work are similar to others, knowledge about the area in general, about local sites of interest in particular and about species or habitats in need of protection through local initiatives.

21. Hamilton Natural History Society- HNHS

A voluntary organisation which has, over many years, carried out field studies and collected information. Their area of interest encompasses the Clyde Valley water catchment area and so extends westwards to Inverclyde. The information generally is weighted towards botanical

information gathered on site visits, but there are numerous records on birds and mammals. Some members contribute information on butterflies, fungi and a few other groups.

The Hamilton Natural History Society is in the process of developing a database of local information based on 10km square divisions. Each square has a record sheet which carries references to all records relating to that area. The term 'records' is used to describe all pieces of information ranging from an individual sighting to a published article. The Society participates in the development control process and information is gathered especially in relation to planning applications in which the society has an interest. They have a particular interest in trees and are also interested in assessing the geological and archaeological features of the area.

Much of the society's work is published in their tri-annual reports. They also are involved in the LBAP process especially in the information gathering area. In the future, HNHS wants to further develop its local knowledge to be able play a more effective role in the planning process by helping to identify sites of local wildlife value. It also recognises the importance of monitoring ecological changes, both positive and negative, and thus supports the establishment of an LBRC.

22. Botanical Society of the British Isles- BSBI

This is the leading British organisation for studying the distribution of plants. The BSBI has a nominated person or 'recorder' in each area who has responsibility for gathering records of species for that area and for guiding recording work related to BSBI projects. These currently include Atlas 2000 which is a major re-survey of the British flora. The Society is also involved in collecting information about national rarities and threatened species and can be expected to be the main source of local information about scarce and rare plants. Most of the Lanarkshire area is covered by the recorder for Lanarkshire but a small part of north Lanarkshire falls within the scope of the recorder for Stirlingshire (this reflects old changes in 'county' boundaries).

The information held by BSBI recorders consists generally of a series of field cards listing species seen in a particular location, site or area. This information may be transferred to a species card index system giving all the records for each species. This information is progressively being converted to electronic database (Recorder).

Significant records from this source are published in local sources but there is much information which would add to the broader understanding of the local flora. Much of this information deals with uncommon and often difficult to identify species and so would be useful to the wider circle of biological information users if it were easily accessible in some way. Some form of data exchange mechanism would allow BSBI records to be made available for conservation. In reverse, the recorders would get easy access to the information being produced from other sources.

23. Clyde Bat Group.

This is a voluntary organisation whose objective is to promote the study and conservation of bats. This involves identifying bat roosts and species for local and nation surveys, giving advice on the protection and study of bats. Habitat studies are also carried out in areas of bat conservation interest.

Most use of biological information relates to environmental assessments concerned with development control. Some of this work is carried out on behalf of SNH.

The bat records are kept on standard Roost visitor forms, with copies going to SNH. This information is kept on computer disc. Summary information is kept in an Access database. The information would be available for sharing under appropriate terms and circumstances.

Most of the information held by the group relates to bat records in private houses and other buildings. There is therefore less information about sites or habitats. Information kept by the group on

designated wildlife sites is limited. They have a special interest in river habitats on account of Daubenton's bat, which is an uncommon species with a strong association with rivers.

For the future, it is likely that the group will become more involved with local studies into habitats and good sites for bats. This would have the purpose to increase understanding of the distribution of bats and allow a better understanding of their site requirements. It would also reduce the risk of losing good bat sites through lack of awareness.

24. Lanarkshire Badger group

This organisation has a remit to study and promote the conservation of Badgers. Lanarkshire has a high Badger population and since Badgers are strongly protected by legislation, this group has a significant role in local conservation.

Badger information is gathered by survey and from reports; the information is stored in the GIS system at the SNH Lanark Office.

25. Scottish Ornithologists' Club- SOC

The Scottish Ornithologists' Club is a voluntary organisation whose members share a keen interest in studying birds and in contributing to their conservation. This happens in a number of ways; SOC, often in collaboration with the RSPB and Scottish Natural Heritage, contribute to development control issues drawing attention to the importance of specified areas for birds. The Club members carry out studies of bird species or communities, including their populations, habitat requirements and their changing status. This contributes to national programmes for bird conservation. They have a public education role both within their own membership and the wider public interested in wildlife.

Their information holdings include
details of wetland bird sites (WEBS) on spreadsheet;
details of bird species distribution across the Clyde Area (data is held on DMAP database);
records of sites in the greenbelt of bird importance (this is being extended to cover the whole area).
Specified criteria are applied to determine a site's importance for birds).

Information on specific themes is maintained as a series of maps
Birds of Upland Valleys - floodplains
Lowland Waders (South Lanarkshire)
Dipper Survey
Bird interest in Clyde Valley Woodlands
Information is being gathered for a bird watching guide for Strathclyde.

Future activities, which will increase the use and gathering of biological information include:-

Having a greater interest in monitoring planning application lists and using more detailed information to respond to development control issues.

Relating bird data to other data sets such as habitat data, perhaps including the LCS88 data and landscape characteristics information, which would significantly enhance the understanding of bird ecology.

SOC will continue to provide specialised information to Scottish Natural Heritage and others and view this as a suitable service to extend to FWAG and the farm planning process.

Scottish Ornithological Club is very supportive of the LBAP process both on specific bird interest grounds and the importance to conservation in general

Generally, the SOC's data will be in electronic form and available for sharing with other organisations or incorporation into a biological information centre. Their information is acquired by considerable amounts of members time given voluntarily and SOC branches are establishing a policy on charging for their information in appropriate circumstances. They have carried out surveys under contract to Scottish Natural Heritage and occasionally have earned money for provided consultants surveys. Scottish Ornithological Club is well aware of the benefits to conservation of being able to share, exchange and integrate information.

26. Individual information collectors

There are a number of individuals who play a part in gathering information about the natural heritage. They often contribute local information to a variety of recording schemes run by national organisations and may act as 'outposts' of conservation organisations by carrying out similar tasks at a local level; for example, drawing attention to local scarce species or providing information about local sites or conservation issues.

This information is often of value because of its local perspective. Local naturalists may be said to be beneficiaries of a nature conservation interest because they are enjoying the qualities of the local environment in an active and positive way.

4. Themes

The numerous activities that involve biological information, as identified through the survey, have been assessed and are grouped here into 'themes' which are operating at the present and will continue to do so in future years. It is quite clear that the use of biological information for many purposes will continue to grow in importance and scale

The range of information collected is wide-ranging, from specialist studies of individual species and habitats to whole-area surveys. The purposes range from individual private interest to compliance with legislation and international agreement.

It is also evident that within a number of these themes there is often more than one organisation involved. Effective communications exist in some cases though there are many opportunities for improved linkages between these organisations. In general there are many opportunities for greater collaboration over information gathering and integrating which would improve efficiency, maximise effectiveness and share resources.

The following themes have been identified as main categories of activity using biological information.

1. Land cover/ habitat surveys
2. Site evaluation surveys
3. Planning- development control
4. Farms, Farm plans, ESAs, CPS and other schemes
5. Industrial land use, disuse and regeneration
6. Rivers, wetlands, fishing, and water quality
7. Nature Conservation strategies
8. Conservation organisations
9. Local Biodiversity Action Plans
- 10 Woodlands
11. Recreation, Conservation, Education

4.1 Land cover/habitat surveys

Both NL and SL Planning Departments use habitat surveys to provide background information on the area's environment from which can be identified particular sites of wildlife interest. A series of such surveys, (using the Phase One method) have been carried out in both areas over past years and are continuing in S Lanarkshire. These surveys will eventually form a baseline of information from which estimates of the changes in habitat structure of the whole area can be made.

A number of organisations use smaller coverages of habitat surveying to base their own plans on. These include the several countryside projects -KVCP, CCP CAVP and CSCT. CSCT whilst not undertaking any large-scale habitat mapping itself, did develop an imaginative initiative by creating a 'directory of information' detailing the coverage of existing surveys. This would be of general value to a number of the organisations dealt with here. It requires updating.

Other surveys going on over fairly large land areas include the West of Scotland Water's plans for a survey of catchment areas around all their reservoirs. This will eventually cover quite a significant area and, as well as meeting their own needs, will be a valuable addition to the general assessment of Lanarkshire's environment

Of special note within this theme is the output from the Land Cover of Scotland Survey of 1988 (LCS 88) which comprises a GIS based map of the vegetation cover of Scotland. The data was derived from interpretation of aerial photographs using a vegetation classification scheme broadly similar to, but simpler than, the Phase One scheme.

There are some limitations to its accuracy and may be some errors in recognition of certain kinds of vegetation. Nevertheless, it could form the basis of an integrated GIS based habitat database on which newer and more accurate information could be overlain. As such it is a valuable asset that would be of benefit to all the organisations involved in using biological information. Currently it is under commercial control and access to it is restricted. Acquiring it for collective and general use would be an important step but would require some high level negotiations between the relevant agencies.

4.2 Site evaluation surveys

A number of organisations commission site surveys for varied purposes, the main ones being planning applications, land re-use projects and farm and woodland grant schemes. Generally, these surveys identify any local species/habitats and assess their significance in terms of what is generally understood to be of conservation importance i.e. national, regional or local significance

The whole process is gradually becoming more significant as planning legislation progresses and as the standards of decision making continue to rise. In a number of cases, previous requirements for ecological assessment of development sites be they for building or forestry, were not very rigorous. This is changing

Having a good integrated database of baseline information allows for an objective assessment of a site's quality and reduces the likelihood of either exaggeration or underestimation of a site's importance when considering its future.

4.3 Planning- Development Control

The process is well known and, in a simple form, places the Council's Planning Departments at the centre of a process which deals with an application coming in from one side and a series of objections or observations from the other. The evaluation is carried out using the objections and other sources to assess the extent of loss and other alternatives. Recent guidelines require the Planning Department to give proper weight to the ecological qualities of the site and this, of course, requires an understanding of the site's interest relative to the wider natural heritage.

A number of conservation organisations, as well as the statutory bodies, make representations over planning applications. At the present they are essentially a series of separate comments coming from different viewpoints. For the Planning Departments, as well as for the conservation organisations, there could be benefits in some integration of this activity. The existence of a Biological Information Centre would provide the Planning Departments with a baseline of information and a source of expertise with which to make initial assessments of sites. Information about planning proposals could then be made available to the organisations interested in commenting in a more focused way. The responses from the organisations could be integrated in some way to provide a clearer view of the values attached to the site.

4.4 Farm Plans, ESAs, CPS and other schemes

There are a series of grant and assistance schemes available to improve the wildlife resource of farmland. Given the importance of farmland as a large component of the landscape and the current economic situation of farming in general this is an important area for both farming and conservation interests and is likely to become more so over the next few years.

The grant giving bodies all have a need for biological information on which to base their assessments, a number of organisations have an interest in providing expertise and advice. There is a growing need for an overall evaluation of the effect of these various schemes. Currently, they are all separate projects, but, as the schemes develop in sophistication there may well be further opportunities for assessing and evaluating proposals in line with an overall strategy. This could include some better liaison between all the bodies who theoretically could be involved in giving advice to farmers, and between those responsible for setting overall objectives.

4.5 Industrial land, use, disuse and regeneration

Coal and steel are major features in Lanarkshire's economy and the consequent derelict land and bings are significant landscape features. The regeneration of derelict land, in particular, involves consideration of wildlife issues. In some cases this concerns important wildlife which has colonised vacant sites, in others there are possible wildlife conservation developments as part of a new use for the land. All areas involved are surveyed for environmental characteristics including wildlife features.

The LDA is the coordinating body for the Derelict Land Strategy. Main participants include the Planning Departments of both Councils, British Steel and Scottish Coal. Other organisations such as CSCT and the Scottish Greenbelt Company are involved through their undertaking of restoration schemes on such land.

Given the size of this sector and the significance of wildlife issues on at least some of the sites, there is a clear need for continued information gathering as part of the regeneration process. It most seems likely that an LBIC would be a considerable asset in the future work of land regeneration.

4.6 Rivers, wetlands, fishing and water quality

Rivers, river margins and floodplain areas have a number of parties interested in information gathering. The Clyde River Fisheries Management Trust is concerned to protect fishing interest and is supporting a major survey of most of this habitat primarily for improving habitat to support fish. This survey may well fill some of the needs for other interested organisations.

West of Scotland Water is planning to carry out habitat surveys over substantial areas of land which comprise their water catchment areas. There is room for collaboration between SEPA over this in view of their future needs for information regarding forthcoming European legislation e.g. The Water Directive

SEPA collects a lot of biological information for their specific purposes. Some of the information and sampling material they collect would be of interest to conservation organisations and there would be benefits in considering arrangements for widening access to this resource.

Flood control is becoming an important strategic issue which will increasingly involve local authorities as well as SEPA and the Water companies (both having an interest in water quality, which extends to biotic quality as well). Forthcoming guidance on drainage and flood control will lead possibly to wetland habitat creation

4.7 Nature Conservation Strategies

Both NLC & SLC as planning authorities have strategies to protect elements of their areas' natural heritage. In general, these strategies identify a series of sites of varying degrees of interest, as well as giving recognition to statutory sites, which are protected by legislation and national policy. This includes a series of Sites of Importance to Nature Conservation (SINCs) which, though non-statutory, are recognised by the local authorities as contributing to the wildlife resource of the local area. North Lanarkshire for example has 300 SINCS in its register.

The differences in the approaches used by preceding planning policies have left a situation in the new authorities where 'policy anomalies' exist between different areas and therefore new unified strategies are progressively being devised to replace the old. This creates a need for more information on a wide scale and this is currently being met in both areas by further survey

4.8 Conservation Organisations

The selection of sites and areas of importance is carried out by other organisations as well, the SWT has its own scheme for designating sites as Wildlife Sites which are assessed on the basis of having locally scarce species or habitats. Hamilton Natural History Society have interests in identifying local sites that they believe to be of local importance.

SOC have a site designation scheme based on specific ornithological criteria. The RSPB recognise nationally important bird species and the areas in which they reside. The bat group and Badger Group identify sites and areas of importance to their own interests. The local botanical recorders (BSBI and HNHS) collect information about species and sites; similarly, the Butterfly Conservation group are involved in surveys of important butterfly sites

All of these organisations are involved in area surveys and site evaluations to produce lists of sites to be protected in some way. There is, it seems to me, an opportunity for much more collaboration over

these activities and for integration of their data. Among other benefits, this would allow for better ecological understanding of why and how sites and habitats are of importance to the various species.

4.9 Local Biodiversity Action Plans

This is a new, and potentially very important, national initiative to achieve positive conservation objectives in a much more pro-active and targeted way than has ever been attempted before. In some ways it builds on the objectives covered in the two previous themes. Details of the process are widely available through the Scottish Biodiversity Group's Manual and Guidance Notes. (see references).

The aim of the LBAP process is to identify a series of nationally and/or locally important species and habitats which require active intervention to prevent decline and restore populations to a pre-determined target. The national 'priorities' are selected by a national Biodiversity Group on the basis of national criteria of population declines and threats. Local species are selected by the Local Biodiversity Action Plan group on the basis of local importance or distinctiveness.

Action programmes are then designed to improve the situation for each target species or habitat and these are then implemented. Implicit in this is the idea that as the chosen species or habitats is restored, other species will benefit from the conservation programmes and there will be a general benefit to the wider environment. Monitoring is an integral part of this process both as a means of establishing the current situation and then to measure effectiveness of action plans as the LBAP process advances.

The LBAP process involves a number of organisations, some as passive supporters, others with a more dynamic contribution. A majority of the organisations covered by this review are partners in either or both of the two LBAPs covering N & S Lanarkshire. The intention is that, as species and habitats are identified as biodiversity targets, each will be adopted by an organisation which has some involvement with the species in some way.

It is already widely recognised that these characteristics of the LBAP process, the bringing together of varied organisations for a common purpose, the identification of specific targets, and the use of monitoring to measure success, lend support to the idea of developing an information and monitoring system as an integral part of the process.

4.10 Woodlands

One of Lanarkshire's most significant habitats is the remnants of ancient woodlands, especially those along the valleys of the Clyde and associated rivers. Additionally, there is a considerable amount of new woodland planting and woodland management being carried out by CSCT and the other projects.

In addition to this there are many other woodland creation opportunities using the WGS, Farm Woodland Schemes, as well as the ESA and CPS schemes. It seems that some kind of coordinated strategy to link these to get the best woodland development over the whole area would be worth investigating.

Many of the schemes share a common objective, to increase the amount of semi-natural woodland resources. They could also, increasingly, include more detailed objectives such as specific species, or sub-habitats in their targets. This would benefit from a more detailed understanding of the semi-natural/ natural woodland habitat of the whole area as well as a more coordinated approach between the many organisations involved.

4.11 Recreation, environmental education, access etc.

There does not seem a great deal of use made of local biological information at present though several organisations expressed hopes to make increasing use of such material as they develop education programmes in the future.

Many of the conservation organisations, the Ranger Services in both Council areas, all the Countryside Projects, as well as the LBAP process itself, have educational aspects of their work which would all benefit from a greater resource of local information. For many organisations, active involvement of their members, or the general public, in observing and collecting wildlife information forms a part of their educational approach. Contribution of such information to a recognised centre, whilst with limitations, is an important part of improving public awareness in both environmental issues themselves and also into the work of all the organisations involved in nature conservation in some way.

5. Findings

The conclusions drawn from the survey in the following sections :-

- 5.1 Levels of activity in organisations using biological information
- 5.2 Format and scope of records
- 5.3 Recording priorities
- 5.4 Priorities of potential customers
- 5.5 Indications of support for an LBRC

5.1 Levels of activity in organisations using biological information

This study has easily demonstrated that there is a great deal of change going on in Lanarkshire, which does, or should, involve the use of biological information. Legislation, public policy and public pressure are all generating a new sensitivity to location and type of developments. Economic initiatives, coupled with social strategies of many kinds, are having an influence on land use and re-use in many ways. A number of large-scale organisations are active in operations, which involve environmental assessments of land holdings

The types of land involved in all of this activity are varied, upland moorland areas, farmed land, areas around the urban fringes, derelict industrial and mining areas, and recreational areas and the river systems. The activities involved range from new housing areas to remedial treatment of damaged land, improvement of land and aquatic habitats to woodland creation.

There is no doubt that the LBAP process which has recently been initiated in Lanarkshire has the capability of drawing a large variety of these organisations together in a way that has not previously existed. Taken on a longer time scale it will generate the need for efficient handling of large amounts of information. This information itself will need to be prioritised, focused and especially capable of monitoring progress towards the specific goals of the LBAP in ways not previously attempted.

A consequence of some of these factors, there are a number of organisations getting involved in using biological information for the first time. Other organisations are relatively recent arrivals on the local scene and are developing and expanding their roles and activities, whilst a number of bodies

have been involved in information gathering for number of years. There seems therefore to be significant opportunities here for developing a network that puts all the newer organisations in contact with other, longer established ones to maximise benefits and minimise losses in information gathering

Nearly all the organisations involved are spending money and effort on acquiring information, sometimes by exchange, sometimes by commissioning new surveys. A money value was not within the reach of this survey but it obviously runs into hundreds of thousands of pounds per annum if not more. It is clear that the future will see even greater sums being spent.

Local government has undergone reorganisation and, at the same time, is responding to its planning duties by developing increasingly progressive nature conservation strategies. On the conservation side there are a number of smaller but vital organisations, which have information gathering as a core of their purpose. This includes the natural history organisations, conservation bodies, specialist study groups, local experts as well as the Scottish Natural Heritage. All of these groups have a steadily advancing interest in collecting information about wildlife within this area. Very often much of this work is carried out through separate activities; this is natural enough, but in consequence, the information is not really brought together in any way.

In a number of cases, there appears to be some duplication of effort and therefore benefits to be gained by sharing activities. This is particularly apparent with respect to GIS and related electronic information systems. On one hand, with common systems, databases can be, and are being shared between organisations. On the other hand, without some co-ordination, there is the probability of duplication of the same limited sets of information and a lack of access to other useful sources

5.2 Format and scope of records

As might be expected, there is such a variety of formats and systems in use between all the organisations, and individuals, actively collecting and holding information, that it is difficult to categorise them

A large amount of species information is held by conservation organisations (SWT, HNHS, SOC, BSBI, and species groups) either on paper files or on small-scale electronic databases. Birds, plants and important mammals are dominant targets. SNH has a lot of information in its files and reports which could be made widely available if it were extracted and published in some way. Species information is often used to further the personal interests of the collecting organisations as well as to aid conservation. Many species groups, especially insects, are not well covered. SEPA's collections of aquatic insects constitute a significant resource which could be used more fully by passing them onto others for further identification and distribution plotting.

Phase One Habitat surveys covering different areas are continuing and a number of different organisations are involved in this process. The surveys generally take the form of separate reports and maps and there is an obvious opportunity to coordinate this and develop a system that integrates these studies together with the GIS based information from the Land Cover Scotland 1988. Local Authorities are interested in surveys of areas around towns, West of Scotland Water is interested in upland catchment areas; river and riverside habitats are of interest to SEPA, CFMT and the LBAP group.

GIS systems are being developed in several organisations and, whilst immediate purposes are being served, there is an opportunity now to plan for the integration of these systems, at least in the coordination of the information being entered. Several organisations seem to be putting essentially the same sets of information onto their own systems. Assistance is required by smaller specialist organisations to bring their information onto the same level to make it accessible to a wider circle.

SNH and the Conservation & Greening Unit of NL Council have by far the biggest collections of data comprising field survey reports, species information, site studies, casual records etc. The bulk of the

material is in file and in report form. In both cases the data collecting has outpaced the synthesis and integration and there is a need to improve information processing to maximise its usability. In South Lanarkshire the progress towards a comprehensive information centre has been less successful, the Country Parks centres have not really advanced to the required degree. Notwithstanding this, information collecting of species information still goes on there.

5.3 Recording priorities

The main priority elements to emerge from this study are:-

Habitat surveys to complete the coverage of the area are required by several organisations to give a baseline level of information to underpin further work. West of Scotland Water, the Clyde Fisheries Management Trust, the Planning Departments of both Councils are all involved in this work. The countryside projects need similar information for their own areas. The directory of information produced by CSCT is a useful contribution to identifying the number of surveys and information sources that already exist. Integration, and progressive updating, of the habitat surveys in order to provide a means of assessing the whole area's habitat structure is also needed if habitat changes are to be monitored in any real way.

Woodland planting schemes and farm conservation projects all involve surveys of a similar nature but following different methods, from a number of organisations. The standard varies and in some cases there is concern over its quality. All applications should be based on competent wildlife surveys of potential areas to avoid loss of existing importance. To ensure that all areas are so covered and that evaluations can be made on the basis of a good understanding of the local wildlife, an integrated information base is recognised to be of use and some agreement as to common methodologies would be of benefit.

Sites of wildlife interest. Both councils have policies to identify and protect such sites (SINCs). The SWT is working on a similar scheme (Wildlife Sites) SOC, similarly has a series of locally important bird sites whilst the RSPB recognises certain areas of national importance for bird species. There is a continuing need for site surveys and the identification of sites of various categories to ensure the conservation of important species and habitats.

Species conservation. Both Councils have obligations to conserve the wildlife interests of their areas, which includes species. A number of conservation organisations have their own interests in different species; birds, bats, butterflies and some mammal species all have 'champions'. More particularly, species priorities are emerging through the LBAP initiative which will be 'adopted' by other organisations.

Whilst general recording of a range of species will continue, it is important to recognise that a series of species will require more effective monitoring as part of their conservation. There is a need to measure population and distribution changes to assess the effectiveness of conservation programmes. In particular, LBAP objectives introduce a new level of performance. Different organisations are collaborating in this new approach, species and habitats are 'adopted' and changes in their status are planned and monitored in a better way than has been done before.

5.4 Priorities of potential customers

Private companies, local authorities, conservation organisations and the legislative and planning processes themselves might all be expected to be customers. Of particular importance are those that have a substantial need for information and who might be expected to either fund the service or buy its information. During the survey, very approximate estimates were sought as to the level of spending on information gathering. . Assessment of the total would require a more detailed study but it is clearly a considerable sum taken over the whole area.

Whether all of this spending could be directed towards an LBRC is difficult to judge, it needs a clearer picture of how the centre would operate in terms of meeting the specific needs of each 'customer'. Nevertheless, the impression is that a Local Biological Information Centre working in accordance with the NBN service criteria could provide a substantial quantity of work. The priorities of the organisations, as indicated during the interviews, identify a number of possible priorities from the range of interests of the organisation contacted. The notion of customers needs some further consideration

Some major services, which might attract financial support, include: -

Collaboration in setting up a GIS network to share information in a structured and efficient way between several large organisations currently developing their own systems (SNH, Planning Departments, West of Scotland Water, CSCT)

Convenient access to sources of habitat information to allow better and quicker assessment of sites and proposals. This affects most of the organisations in some way. Involvement with conservation developments on farms seems likely to be a particular development that would benefit from a local information service.

Access to expertise to provide advice and guidance in developing species/ habitat conservation plans for a variety of organisations and areas. A number of organisations have limited internal expertise and have to buy in surveys and advice, often an expensive option.

Organising monitoring strategies to support the LBAP process, especially where species or habitats are adopted by organisations without in-house expertise. This topic involves a number of organisations and will grow to interest yet more. The need for a good information source will continue to grow.

Detailed site and species information to assist planning departments to carry out their duties with respect to new planning guidelines and legislation. Several organisations have expressed interest in access to a more comprehensive database to allow more balanced assessments of individual applications to be made.

5.5 Indications of support for an LBRC

All the organisations interviewed, notwithstanding any specific reservations, gave general approval to the concept of an integrated local biological information service for Lanarkshire. Most organisations have a direct need for biological information to help them meet their obligations and targets. All of them recognised that there was a general benefit to the area in having such a service available. In all cases, there was. -

- **appreciation** of the benefits in terms of easing and speeding access to information,
- **recognition** of the benefits in promoting better standards,
- **awareness** of the need to integrate the various separate activities to achieve a common baseline to permit improved and more balanced local evaluations,
- **Understanding** of the role that biological information has to play in monitoring the positive environmental changes that are the common goal.

Given the findings,

- That Lanarkshire is changing, in its economic structure, and in its approach to its own environment.
- That new environmental legislative and policy initiatives are affecting many Lanarkshire organisations, generating an expansion of activity related to biological information gathering.
- That conservation of species and habitats is now at the forefront of local, national and international interest,
- That there are great opportunities in Lanarkshire for integrating biological activities,

The conclusion drawn from this is that there is a very good case for the establishment of a Local Biological Information Service for Lanarkshire following the criteria and guidelines proposed for the National Biodiversity Network

There are a number of existing sources of information which would form a very solid resource base for an LBRC and it is evident, that for nearly all of them, there is an existing problem in properly managing the existing information adequately.

An LBRC would allow existing, and future, local and national conservation objectives to be met in an efficient and integrated way. It would allow several of the main Lanarkshire organisations to comply with legislative, and their own corporate requirements, in an effective way. It would provide a resource for local organisations and for public education in wildlife conservation.

7. Contact addresses

This lists the organisations referred to in the report. Letters after the contact name refer to membership of LBRF or LBAP group. A full list of members of the Lanarkshire Biological Recording Forum and of the North and south Local Biodiversity Groups can be obtained from either North Lanarkshire Council Conservation and greening unit or South Lanarkshire council community Services.

Botanical Society of the British Isles LBRF
Mr Peter McPherson, Recorder
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Ms Edna Stewart, Recorder
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Butterfly Conservation LBRF
Mr Richard Sutcliffe, Butterfly Recorder
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Central Scotland Countryside Trust. LBAP
LBRF
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Clyde & Avon Valleys Project LBRF
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Clyde Bat Group LBRF
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Clyde Calders Project LBRF
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Clyde River Fisheries Management Trust
NL/LBAP LBRF
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**Scottish Office, Dept. of Agriculture,
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East of Scotland Water NL/LBAP LBRF
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Farming & Wildlife Advisory Group
NL/LBAP LBRF
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Forest Enterprise LBRF
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Glasgow & Clyde Valley Joint Planning Group
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Hamilton Natural History Society LBRF
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Kelvin Valley Countryside Project LBRF
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Lanarkshire Badger Group LBRF
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NL/LBAP LBRF

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North Lanarkshire Council NL/LBAP LBRF

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**North Lanarkshire Council, Conservation &
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Mr Bill Brackenridge, Ecologist,
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Scottish Coal NL/LBAP LBRF

Miss Phillipa Chapman, Ecologist

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Scottish Environmental Protection Agency

NL/LBAP LBRF

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SEPA West Region Headquarters, Peel Park

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Scottish Natural Heritage LBRF

Ms Liz Buckle/ Mr Lindsay Mckinlay, Local
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28 Bannatyne Street LANARK

ML11 7JR

Scottish Ornithologists Club LBRF

Mr Chris Waltho

C/o C A V.P (see above)

Scottish Wildlife Trust LBRF

Mr David Lang,/ Mr David Knox,

Survey Team Supervisors

1 Enterprise Workshops

MOTHERWELL

ML1

Scottish Wildlife Trust Cumbernauld

Greenspaces LBRF

Mr Drew Jones, Cumbernauld House

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G67

**South Lanarkshire Council, Community
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Mr Malcolm Muir

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South Lanarkshire Council, Countryside

Ranger Service LBRF

Ms Ann McKillop, ,

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West of Scotland Water NL/LBAP LBRF

Ms Joyce Finnegan, Environmental Systems
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8. Bibliography

Woodland Grant Scheme- Application Form Species selection information

A two-page form holding brief details of features of site being proposed for WGS

Archaeology on the farm

Leaflet from Historic Scotland describing what to do about finds on farms and the help available from Sites and Monuments Record Offices

Lanarkshire Derelict Land Strategy

A booklet from Lanarkshire development Agency describing their strategy for solving the problems of derelict land in Lanarkshire, (4,000ha of derelict and 10,000ha Vacant land). It includes reference to the development of a Lanarkshire Green Plan

Ll Farming and Wildlife Advisory Group

A leaflet describing the work of FWAG

CSCT Register of Heritage Alert Information 1998

A report identifying sources of information on recognised sites of wildlife importance and listing maps of such sites and their location.

A Common Development Framework for the next 20 years for Glasgow and the Clyde Valley the strategic Issue (also available as a summary report)

A report summarising planning objectives for the area including reference to a 'strategic environmental framework' which includes biodiversity, biodiversity action plans and a landscape character assessment

Central Scotland Forest Strategy March 1995

A very thorough review of the strategy being implemented by CSCT and others.

Community Woodlands in Scotland: the Central Scotland Community Woodland Plan

A leaflet from Forestry Authority/ Forestry Commission describing the opportunities for community woodland schemes within the central Scotland area.

The Countryside Premium Scheme The Scottish Office 1998

A booklet providing information of the CPS with references to the habitats and species of conservation value, which can be helped through this scheme

Data Review 1997 North Lanarkshire council

A very thorough review of information needs for the council to carry out its functions It includes a section on the natural environment that identifies the need for more information collecting in a number of categories including LBAPs

Changing Gear A strategy for the Lanarkshire Economy

A joint publication by N & S Lanarkshire councils, LDA and Scottish Homes. It includes references to reclaiming dereliction and making Lanarkshire 'a better place to live, work and visit'.

Central Southern Uplands Environmentally Sensitive Area Scheme

A Scottish Office? Publication describing the scheme and its objectives.

The Farm Woodland Premium Scheme

A Scottish Office leaflet

Native Woodland Action Plan

Central Scotland Countryside Trust publication

Local Biodiversity Action plans, a manual and guidance notes

A Scottish Office/ COSLA publication Current edition- January 1999

Biodiversity, the UK Steering Group Report

Government publication detailing the Biodiversity action Plan strategy

9. Glossary

ESA	Environmentally Sensitive Area - support scheme for farming
CPS	Countryside Premium Scheme- grant scheme for on-farm conservation
LBAP	Local Biodiversity Action Plan- strategy for conserving selected species and habitats
SSSI	Site of Special Scientific Interest- nationally designated site
SINC	Site of Importance to Nature Conservation- locally designated site of local importance
LBRC	Local Biological Records Centre
LBIS	Local Biological Information Service (synonymous with LBRC)
EIA	Environmental Impact Assessment-a procedure for assessing proposed changes on a site
LNR	Local Nature Reserve- A designated site of wildlife and educational interest
NBN	National Biodiversity Network- A national initiative to develop a set of operational standards for a network of LBRCs.
WS	Wildlife Site; a site recognised by the SWT's under their Site Assessment Scheme