COMMISSIONED REPORT

Commissioned Report No. 174

Evaluation of Local Nature Reserves

(ROAME No. F05AB03)

COMMISSIONED REPORT

Summary

Evaluation of Local Nature Reserves

Background

A Local Nature Reserve (LNR) is a protected area of land designated by a local authority because of its special local natural interest and/or educational value. Today there are 41 LNRs in Scotland, considerably fewer than in England and Wales. In 2000 SNH published '*Local Nature Reserves in Scotland – A Guide to their Selection and Declaration*'. This set out SNH's policies on LNRs, made clear and expanded their role, and also clarified the designation process.

This report explores the effectiveness of the LNR designation in Scotland by identifying the success and failures of LNRs to date, especially in relation to broader policy areas such as greenspace, community participation, and environmental and social justice. It also investigates the reasons behind the currently low number of LNRs in Scotland. This information is used to provide recommendations as to how the value of the LNR designation can be enhanced and further supported by SNH.

Main findings

- Most existing LNRs are delivering a good range of benefits, contributing to environmental and biodiversity improvements and providing opportunities for access, education and enjoyment. However links to policy sectors such as health, social inclusion, community regeneration and economic development are not being fully incorporated in to designation and management at present.

- The reasons for the relatively low number of LNRs in Scotland include a lack of specific funding, concerns about future resourcing (including in terms of staff time and maintenance support), and lack of awareness of their special role and status. It also reflects the lack of a common national framework for identifying and bringing forward new LNRs.

- LNRs are not being widely recognised as a unique and valuable designation, resulting in a lack of active support. Many local authority policy officers are not aware that they have a different level of statutory 'weight' attached to them than other types of sites, including SINCs. There are also mixed views on the value and role of LNRs from within SNH. Some officers feel they should only be established in areas with intrinsic natural heritage value, whilst others recognise the scope they provide for enhancement even in areas which currently lack natural heritage interest at present.

There is scope to encourage a greater number of LNRs in Scotland but in order to achieve this there is a need to clarify and promote their role, status and benefits. As such additional national guidance setting the role of LNRs within the wider greenspace agenda would be useful. Also key to ensuring enhanced benefits is the need for local authorities and SNH to work more closely with other stakeholders such as local communities, the enterprise network and the health sector. However pivotal in the future success of LNRs is the identification of an appropriate 'LNR champion' within local authorities who can assure that appropriate positive significance is attached to this local designation.

Executive summary

Background

This report explores the effectiveness of the LNR designation in Scotland by identifying the success and failures of LNRs to date, especially in relation to broader policy areas such as greenspace, community participation, and environmental and social justice. It also investigates the reasons behind the currently low number of LNRs in Scotland. This information is used to provide recommendations as to how the value of the LNR designation can be enhanced and further supported by SNH.

Main findings

The following key findings emerged from the research:

- The relatively low number of LNRs in Scotland is attributable to a number of key factors, including a lack of specific funding, concerns about future resourcing (including in terms of staff time and maintenance support), and lack of awareness of their special role and status. It also reflects the lack of a common framework for identifying and bringing forward new LNRs.

- Management plans are often out of date, and those which do exist lack a sense of vision that reflects the wide range of benefits the designation could provide. Whilst they can be a useful tool for environmental aspects of site management, it is proposed that they could play a greater role in supporting applications for funding.

- A number of policy sectors, particularly health, social inclusion, community regeneration and economic development are not being linked to the management or designation of LNRs as fully as possible.

- Despite this, most existing LNRs are delivering a good range of benefits, providing a sustainable balance between contributing to environmental and biodiversity improvements and providing opportunities for access, education and enjoyment.

- LNRs are not being widely recognised as a unique and valuable designation, resulting in a lack of active support for them in development plans. Many local authority policy officers are not aware that they have a different level of statutory 'weight' attached to them than other types of sites, including SINCs.

- Development plans are not actively supporting existing LNRs, and appear to be missing an opportunity to strategically evaluate scope for additional sites within local authority areas. There is also a potential role for greenspace audits and strategies to play, as well as a need for greater recognition of LNRs within LBAPs.

- There are mixed views on the value and role of LNRs from within SNH. Some officers feel they should only be established in areas with intrinsic natural heritage value, whilst others recognise the scope they provide for enhancement even in areas which currently lack natural heritage interest at present. In addition, SNH officers are unclear about how they can inspire local authorities and community groups to designate additional areas, and have concerns about scope for contributing to their management as a result of resource constraints.

- The funding of LNRs is a key factor in their designation and their long term success in meeting policy aims. Overall there is a widespread concern about levels of funding available for LNRs, particularly in relation to taking on additional sites. This relates to both difficulties in securing revenue over the long term to cover maintenance and management costs, and more specifically, the potential for reduced funding if additional LNRs are designated.

Recommendations

In order to set a new course of action for taking LNRs in Scotland forward over the coming years, several recommendations emerged as a result of the research.

1. There is a need to clarify the role, status and benefits of LNRs.

2. There is scope for wider promotion of their benefits, in order to inspire additional designations and ensure that all partners understand their contribution.

3. Additional national guidance, which sets LNRs within wider greenspace planning frameworks, should be provided.

4. There is a need to clarify the role of SNH staff in identifying additional LNR sites and supporting local authority and community groups within management processes.

5. SNH and local authorities should continue to work with community groups to achieve management aims and enhance the contribution which they could potentially make to drawing in additional resources.

6. Health sector partners should be targeted and actively encouraged to contribute to LNR development and management.

7. Similarly, there is scope to work more with the private sector and local enterprise network in order to secure resources and achieve a wider range of benefits through LNRs.

8. It would be useful to provide additional information on funding, together with specialist support for existing and potential LNR partners from within SNH. Further guidance on management plans, which recognises their potential role in securing funding, would also be beneficial.

9. Finally, within local authorities it would be useful to identify champions to lead the development of LNRs and identify additional sites for designation, whilst actively promoting cross sectoral working.

Contents

List of figures

1   INTRODUCTION

1.1   Background

In September 2005 Land Use Consultants (LUC) was commissioned by Scottish Natural Heritage (SNH) to undertake an evaluation of Local Nature Reserves (LNRs) in Scotland. The aim of the study was to explore the effectiveness of the LNR designation in relation to broader policy areas such as greenspace, community participation and environmental and social justice. This report also includes recommendations as to how the value of the designation can be enhanced and further supported by SNH.

1.2   Study aims and methodology

The original aims of the study were to:

- **review the performance** of LNRs with reference to the policy framework, identify links with broader policy objectives, and any added value they provide;

- investigate **reasons as to the relatively low number** of LNRs in Scotland;

- examine **resources** committed to the designation and management of LNRs and support for other projects which overlap with LNR purposes;

- establish the current use, quality and scope of LNR **management plans**; and

- identify **barriers** to meeting the policy aims, and **opportunities** to improve policy implementation.

In order to achieve these aims, the study has included the following components:

- a desk review of existing research relating to LNRs as well as a review of development plan policies and a number of LNR Management Plans;

- a stakeholder questionnaire, which was sent to all LNR site managers, local authority policy officers, SNH officers and user groups. (See Appendices 2 and 3);

Table 1.1   Questionnaire responses

Stakeholder group	Number of responses
Site managers	13
LA Policy officers with LNRs	5
LA Policy officers without LNRs	5
SNH officers	9
User groups	9
Total	41

- a strategic evaluation of LNRs in Scotland against a range of pre-defined environmental, social and economic criteria;

- an examination of a representative group of six LNRs as case study sites in order to illustrate key issues, including:

  - Birnie and Gaddon Lochs LNR;

  - Castle and Hightae Lochs LNR;

  - Dumbreck LNR;

  - Kincorth Hill LNR;

  - Meadows Yard LNR;

  - Straiton Pond LNR;

- a focus group discussion with a range of site managers and policy officers;

- a resource evaluation in order to identify key existing and potential sources of funding for LNRs in Scotland.

1.3   Report structure

This report brings together the key findings from each of these tasks. It includes the following chapters:

- Chapter 1 – Introduction to LNRs in Scotland;

- Chapter 2 – What benefits are LNRs providing?;

- Chapter 3 – How are LNRs planned and managed?;

- Chapter 4 – How are LNRs resourced?;

- Chapter 5 – Conclusions and recommendations, focusing on opportunities to overcome existing barriers to better realise policy aims.

1.4   Background to LNRs

Prior to setting out the findings of the evaluation, it is useful to recap on the current number and type of LNRs in Scotland.

1.5   Current types and locations of LNRs

LNRs were introduced by Section 21 of the National Parks and Access to the Countryside Act 1949. To date, the following LNRs have been designated in Scotland:

LNR name	Local authority
Den of Maidencraig	Aberdeen City
Donmouth	Aberdeen City
Kincorth Hill	Aberdeen City
Scotstown Moor	Aberdeen City
Arnhall Moss	Aberdeenshire
Waters of Philorth	Aberdeenshire
Montrose Basin	Angus
Duchess Wood	Argyll and Bute
Corstorphine Hill	City of Edinburgh
Blackford Hill/Hermitage of Braid	City of Edinburgh
Ravelston Woods	City of Edinburgh
Meadow's Yard	City of Edinburgh
Easter Craiglockhart Hill	City of Edinburgh
Gartmorn Dam	Clackmannanshire
Castle and Hightae Lochs	Dumfries and Galloway
Wigtown Bay	Dumfries and Galloway
Broughty Ferry	Dundee City
Inner Tay Estuary	Dundee/Perth and Kinross
Trottick Mill Ponds	Dundee City
Aberlady Bay	East Lothian
Merklands Nature Area	East Dunbartonshire
Birnie and Gaddon Lochs	Fife
Coul Den	Fife
Cullalloe	Fife
Dalbeath Marsh	Fife
Eden Estuary	Fife
Torry Bay	Fife
Bishop Loch	Glasgow
Hogganfield Park	Glasgow
Coves Community Park	Inverclyde
Straiton Pond	Midlothian
Findhorn Bay	Moray
Stevenston Beach	North Ayrshire
Dumbreck Marsh	North Lanarkshire
Perchy Pond	North Lanarkshire
Mull Head	Orkney Islands
Jennys Well	Renfrewshire
Paisley Moss	Renfrewshire
Langlands Moss	South Lanarkshire
Balquidderock Wood	Stirling
Loch Stiapabhat	Western Isles

Three quarters of the total area (9,489ha) of Scottish LNRs are made up of intertidal coastal areas, and just under three quarters of the sites are less than 70ha in size (Holbrook, 2004). Other types of habitat covered are bogs, moors, swamps, grassland, watercourses and lochs, heath and woodland. Many of the sites comprise a mix of habitats and support a range of species, and so aim to promote 'nature' in general as opposed to having a more specialist focus. Several of the sites are areas which have been reclaimed or naturalised, and the majority appear to be within an urban area or in a semi-urban or urban fringe setting.

Figure 1.1 shows the distribution of LNRs throughout Scotland and illustrates that there is a predominance of designations within the central belt areas of Lanarkshire, the Lothians and Fife with a further clustering along the east coast. There are only a handful of LNRs which lie outwith this at the northern and southern peripheries of Scotland. The popularity of the designation within urban areas contrasts markedly with the complete absence of designations in areas such as Highland.

Figure 1.2 illustrates the cross over between LNR and SSSI designations in Scotland and shows that 13 out of the 41 LNRs also have a SSSI designation attached to all or part of the site. This is shown to be the case in some of the sites in Fife, the north east and the peripheral north and south sites. It must therefore be the case that these are high value sites for wildlife and habitats with the SSSI designation providing statutory protection at a national level.

Figure 1.3 links the location of LNR designations with the Index of Multiple Deprivation to show where sites overlap significantly with areas of poverty and social exclusion. As the sites follow a general urban trend throughout the central belt there are obvious links to areas of deprivation particularly in Lanarkshire and parts of Fife. These links are less marked in the rural sites and those on the peripheral parts of north and south Scotland.

1.6   Timing of LNR designation

The first Scottish LNR was designated at Aberlady Bay in East Lothian in 1952 and by 1989 there remained only six LNRs in Scotland as a whole. However, thereafter this figure rose so that there were 36 sites by 2002, comparable at the time to some 600 in the UK. LNRs experienced a major growth period during the 1990s in Scotland. The following timeline explores some of the key events which happened over this time period, in order to clarify potential influences on the designation process. The different coloured text reflects sites' context with pink indicating a rural location, green an urban fringe location and blue an urban location.

The timeline identifies a range of potential influences on the accelerated rate of designation which occurred from the early 1990s onwards, including the creation of SNH itself. In addition, as predicted by Jamieson (1995), local government reorganisation in 1996 may have led to a particularly high rate of designation in that year. The timeline also confirms the shift over time from an initial emphasis on rural sites towards a much more urban emphasis in recent years.

In terms of currently proposed LNRs, which are shown in the third column, the list shows a clear emphasis on urban fringe sites coming forward for designation in more recent years, following the broader trend shown in the timeline. A large proportion of the sites have been in discussion or proposed for around 5 years or more.

There appears to be a tendency for local authorities to be bringing forward 'groups' of LNRs together, perhaps reflecting that potential sites are identified as part of area wide reviews, as opposed to on a site specific basis in these areas.

Figure 1.1   Scottish LNR locations
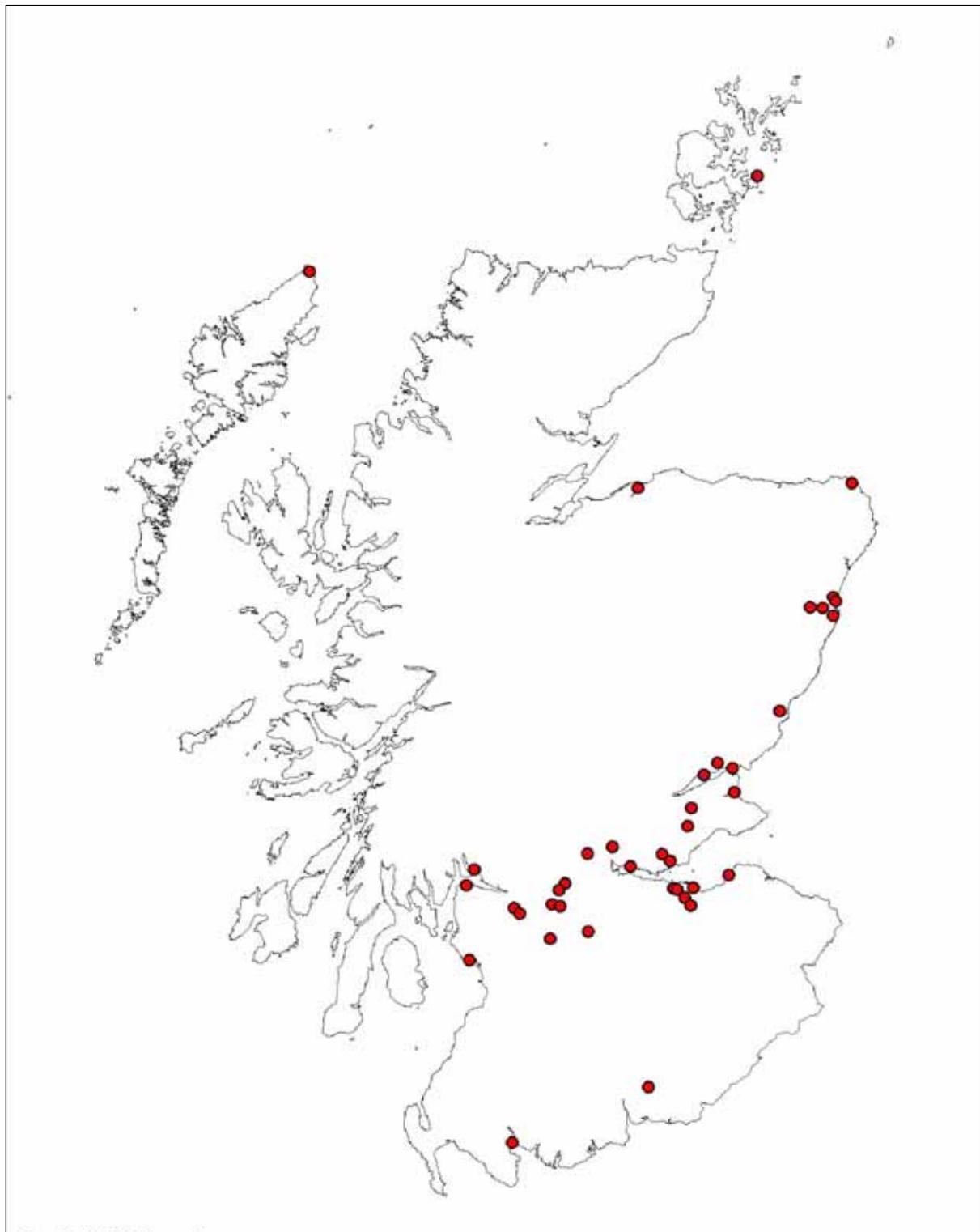
Figure 1.2   Scottish LNRs connected with SSSIs
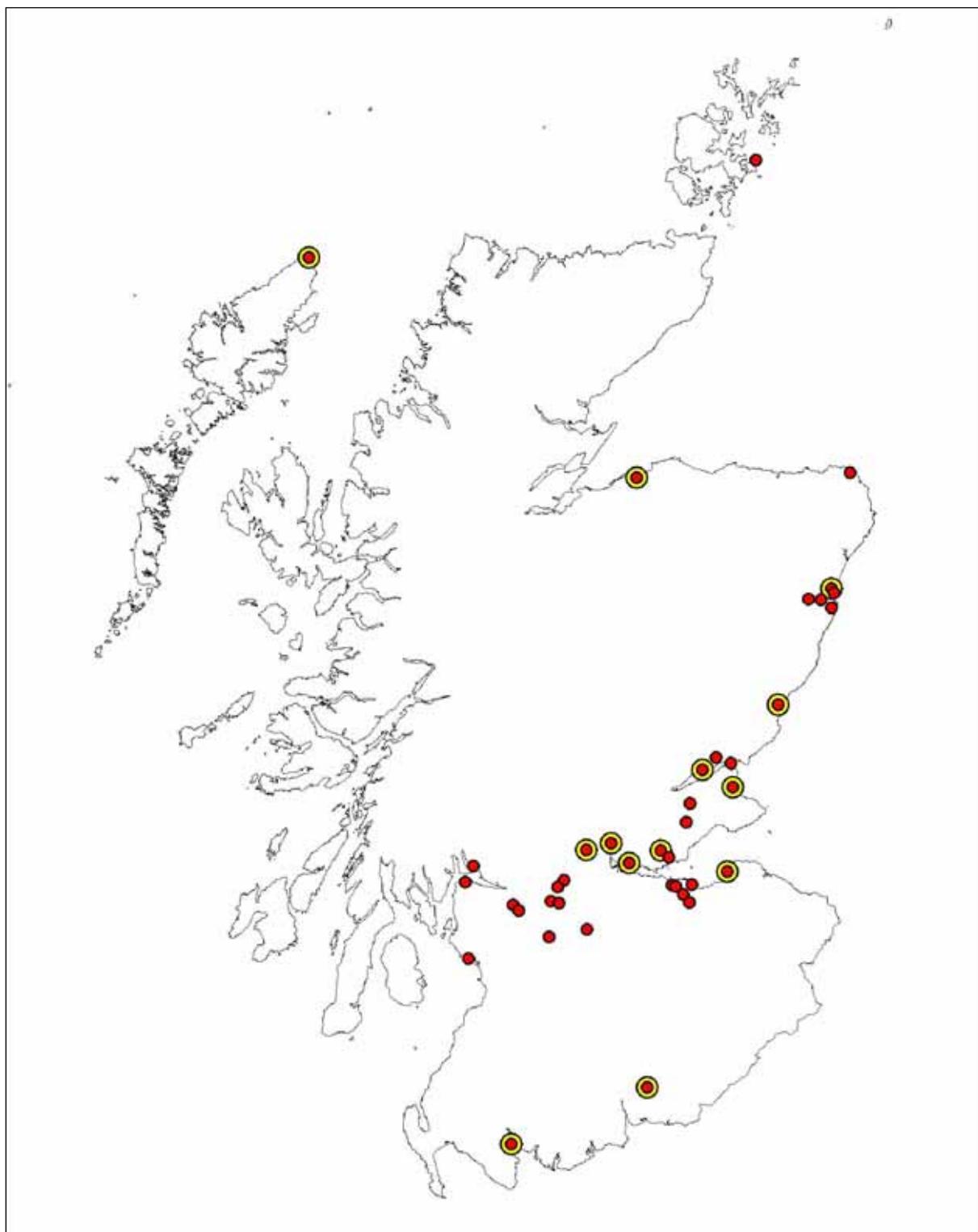
Figure 1.3 LNRs and overall general deprivation
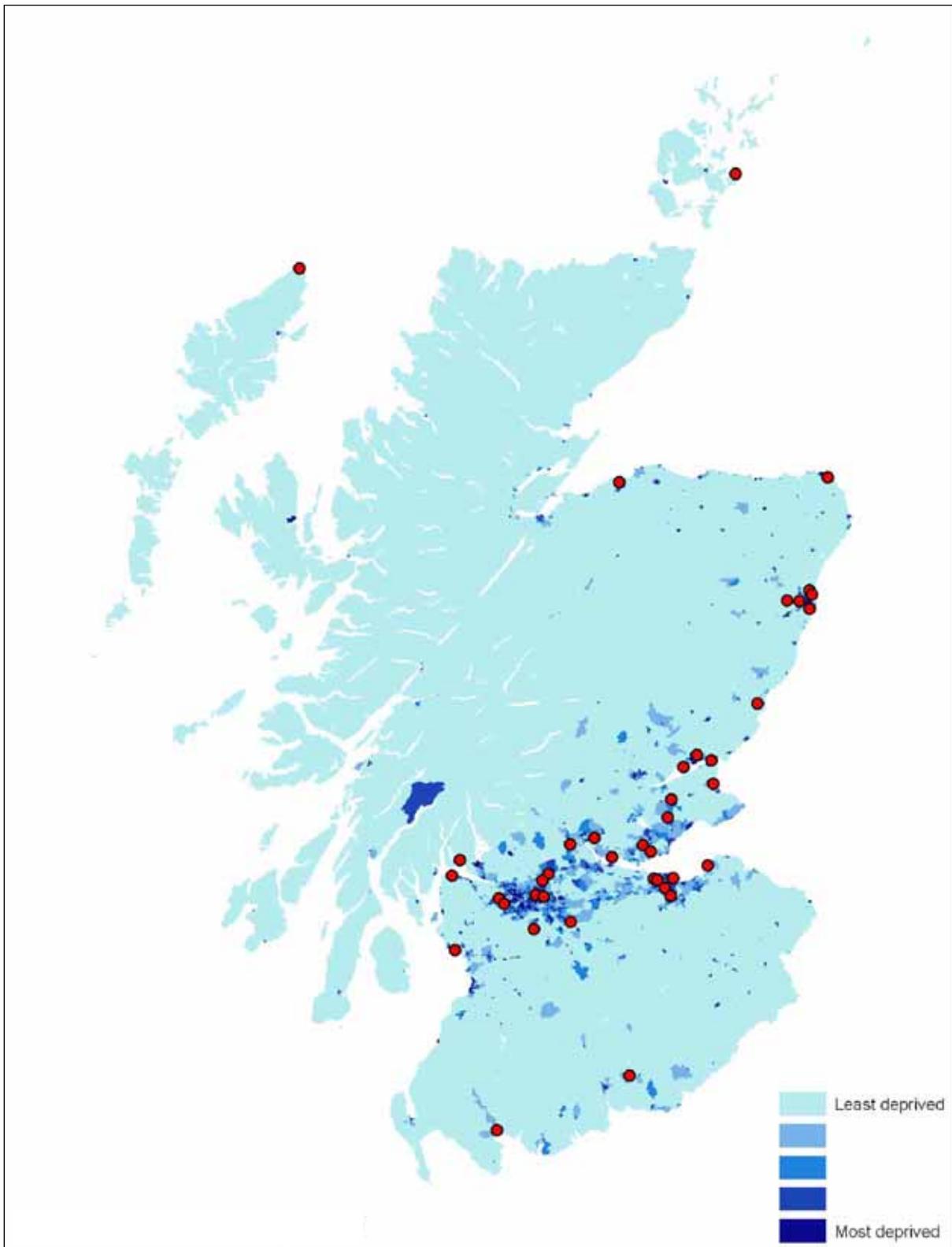
Figure 1.4   Timeline of LNR designation in Scotland

Although the uptake of LNRs in Scotland has gathered pace over time, there is still a relatively low rate of designation, particularly when compared to England and Wales. There are just 41 LNRs in Scotland compared to some 1158 sites in England (end of March 2005) (Berry, 2005). To place these figures in perspective, this means that while there is one LNR per 50,000 people in England, in Scotland there is only one LNR per 125,000 people.

It is interesting to compare the timing of designation with experiences in England and Wales.

In Wales, the CCW suggested that peaks in designation of sites seemed to follow from important publications or consultations, including the publication of CCW guidance in the early 1990s and the UNESCO UK Man and Biosphere Committee Report in 1998.

In England, English Nature have noted that LNRs grew in popularity in the late 1980s when its predecessor, the Nature Conservancy Council (NCC) 'changed tack' and took a lead on LNRs which was later continued by English Nature. They also attribute the significant growth from the 1980s to the more general rise in awareness of environmental issues within society and the decline of heavy industry in many areas. Work by the NCC's Urban Habitat Network, led by its chair George Barker, also stimulated a reconsideration of the specific value of LNRs, as a departure from the original provisions of the 1949 Act, in that their environmental qualities could be as much defined by community interest in a site as its natural heritage value. As a result, in England LNRs are crucially recognised as being distinct from NNRs. The availability of grants from 1999 onwards also provided the financial incentive which local authorities needed to propose new LNRs. Despite this, English Nature remain concerned that lack of widespread monitoring and information at the national level may be limiting the potential of LNRs to achieve their full potential.

1.7   Key benefits of LNRs

Many of the earliest LNRs in Scotland were declared to resolve conflicts between competing land uses or to give protections to a site's special interest to allow the introduction of byelaws (SNH, 2000). At the launch of SNH's most recent LNR guidance document, in December 2000, John Markland of SNH noted that the role of National Nature Reserves, to foster national awareness of Scotland's wildlife and habitats, should be mirrored by Local Nature Reserves, as places "*where people can come to experience, enjoy, learn about and get involved with nature … a LNR should be a signal to the public that this is somewhere to go to experience nature*" (SNH, 2000). According to the guidance, the aims of LNRs are twofold:

- increase awareness of, understanding of and personal commitment to the natural heritage; and

- enable protection and enhancement of the natural heritage in special locally important places.

SNH recommend that added value should also be achieved by contributing to other strategic objectives for the natural environment, education and communities including ecological and green networks, Paths for All, small scale employment and training initiatives, improving health, attracting tourists, and conserving sites of cultural importance. It also acknowledges that added value of LNRs for promoting partnership working between local authorities, government, communities, the voluntary sector and land owners/occupiers.

In addition to the statutory requirements for LNRs, SNH is keen to promote an emphasis on provision of informal opportunities for awareness raising, understanding and enjoyment of the natural heritage, reflecting part of the organisations overall remit and also to promote achieve maximum value for sites. A focus on community involvement is a priority in terms of site selection criteria and access and safety are key considerations.

Box and Barker (1998) proposed that local authorities should give high priority to designating and managing LNRs as they tend to be low cost in terms of maintenance, can provide educational opportunities and become valuable local assets. They emphasised community development as a key benefit of LNRs, providing scope for enjoying the environment and peacefully contemplating nature, as well as a place to come together and work in partnership to improve the local environment. They suggested that having high quality site based staff was key to the success of LNRs.

1.8 Understanding and addressing the slow uptake of LNRs in Scotland

SNH prepared an inventory in 1995 (SNH, 1995) which identified the key characteristics of sites, and highlighted problems arising from some key sites. It concluded that at some sites there has been a lack of direct community involvement, although there are notable exceptions to this including Donmouth and Scotstown Moor in Aberdeen. Some conflicts between users were also arising, with birdwatching in particular often not being compatible with other recreational uses. Other concerns included conflict between sailors and anglers. There was also limited use of many of the sites at that time for education, and some conflicts with adjoining land uses.

In parallel with this, a review of LNRs in Scotland by Jamieson (1995) focused on why there may have been a low number of LNRs designated, particularly when compared to the situation in England and Wales. The study found that despite widespread awareness by planning authorities of the opportunities to create LNRs, they *"only play a minimal role within Scottish local authority nature conservation objectives, due to a combination of internal and external factors"*. A second finding of the study related to the lack of consistency of approach in terms of how LNRs are declared and how they are used, from tenure and management to objectives and requirements for community participation. In 2000 SNH and COSLA provided guidance which aimed to clarify the role of LNRs, and to advise local authorities on the process of designating and managing sites.

One of the potential barriers to designation may be a lack of familiarity with the LNR designation process. NPPG14 (Scottish Executive, 1999) noted that LNRs are one of the most important natural heritage designations available to identify locally important wildlife sites. Whilst it notes that 'appropriate provision' should be made for LNRs within local authority areas, it does not go as far as providing guidance on the designation process or actively promoting them. Similarly, the Scottish Executive has acknowledged the benefits of LNRs for education and involvement in its work on Best Value and Biodiversity (Lenthall, 2004), but these benefits are taken as a given as opposed to a case actively being made to promote further designations.

The SNH LNR guidance (2000) sets out the process of designating LNRs, within which it clarifies the need for legal inputs and a degree of investment to establish the site. Part of the designation process is assisted by the availability of SNH grants, although these do not cover legal inputs, but there remains the need for the commitment of local authority resources to achieve designation in most cases. Although this has been recognised as a potential barrier to designation, SNH remains supportive of designating LNRs where there is strong community commitment.

The remainder of this report therefore aims to evaluate the successes and failures of LNRs in Scotland to date, before identifying how current barriers to designation might be overcome.

2 WHAT BENEFITS ARE LNRs PROVIDING?

In order to identify why LNRs may or may not have been brought forward by local authorities and communities, it is useful to firstly gather a view on the performance of the existing sites.

Drawing on the various elements of the research, this section of the report takes forward the assessment to consider how LNRs are contributing to a range of pre defined criteria. These criteria are set out in the table below:

Environment	Are LNRs consistently achieving their stated conservation aims?
	Are management expectations being exceeded – eg through particularly effective restoration?
	Are wider resource related benefits being delivered through management of the LNR – eg water quality, air quality, reclamation of derelict or contaminated land?
	How are LNRs contributing to strategic biodiversity objectives eg Forest Habitat Networks and ecological networks?
	Are LNRs delivering important benefits for landscape planning and quality – eg green networks, townscape quality?
	Are LNRs playing a role in safeguarding built heritage, culture and traditions?
	Are LNRs contributing to the biodiversity planning process?
	Are LNRs helping to deliver new biodiversity duties introduced by the Nature Conservation Act 2004?
Health	Are LNRs being used to encourage higher levels of physical activity?
	Are there initiatives which are ensuring that LNRs provide health benefits in areas of health and social disadvantage?
	Are LNRs used for health related promotion or education?
Social inclusion and community empowerment	Are LNRs stimulating community involvement and inspiring use by communities who may not otherwise have positive recreation alternatives (eg young people?)
	Is there a sense of shared 'ownership of, and responsibility for all LNRs? Is this a strength of some and a weakness of others?
	Do any members of local communities lack involvement at present, and are there plans to remedy this?
	Are LNRs actively promoted and managed for access and how are environmental sensitivities addressed as part of this?
Economic development	What methods are used to achieve economic development eg promoting local businesses as part of LNRs?
	Is there a high level of investment in the areas around LNRs, and can this be linked in any way to the LNR (eg site references in promotional literature by developers)?
	Do LNRs attract tourists?
Sustainable communities and housing areas/ neighbourhood regeneration	Have LNRs contributed to a programme of environmental improvements?
	Have LNRs contributed to meeting open space standards and strategies?
	How do they relate it to the surrounding communities – is it accessible, how is access managed etc?
Local identity and civic pride	How do LNRs help to conserve locally distinctive species or habitats?
	Is this being recognised amongst the wider community?
Education	Are LNRs being used to actively develop an understanding of environmental processes?
	What materials are being used and are they having the desired impacts amongst target groups?

The following paragraphs discuss each of these issues in turn.

2.1   Environmental role of LNRs

It is difficult to identify **the extent to which LNRs are consistently achieving their stated conservation aims** on the basis of the management plans, but an overview of their contents suggests that the ongoing management regimes are effective in their own right, but constantly facing challenges as a result of site characteristics and contexts. This is an integral part of the management process, as opposed to a shortcoming of their management.

From the management plans reviewed, the following typical issues emerged:

- at **Birnie and Gaddon Lochs**, the Management Plan notes that further work is required to reduce rabbit numbers due to the negative effects they are having on tree species. Similarly ongoing cutting to reduce marsh encroachment and invasive plants is required. Management of the site is also heavily dependent on climatic factors, such as levels of rainfall, and consequently water levels;

- the **Eden Estuary** Management Plan notes that as much of the LNR is intertidal, there is limited scope for active management, but that neighbouring land use and coastal processes (including engineering and erosion) have a critical impact on the LNR. An evaluation of the 1998–2003 Management Plan showed that whilst some species are flourishing on the LNR, there are concerns about others. In addition, coastal processes and climate change are raising concerns about loss of saltmarsh and dune habitats;

- in the case of the **Donmouth** LNR, there are concerns about both natural and man induced trends influencing the quality of the habitats, particularly the fragile sand dunes. The management plan notes that some habitats require no intervention to remain in good condition, whilst others are dependent on natural processes;

- at **Den of Maidencraig**, natural processes also provide an ongoing challenge for site managers. The management plan notes that although grazing of the marshy grassland ceased when the LNR was adopted, the gorse has not spread as effectively onto the wetland as had been expected, and that the marsh appears to be drying out. There is ongoing work to improve the area for wildflowers. There has been difficulty in maintaining water quality in the pond as a result of silting, which has been difficult to manage, and as a result it has been partly colonized by invasive species in parts;

- again, external factors are providing key challenges for LNR site managers at **Aberlady Bay**. For example, an oil spill resulted in bird casualties on the site in 2003. Nest predation is also monitored and managed, depending on the level of predators on the site. The management of the site includes detailed prescriptions for the range of habitats and species it supports, and ongoing monitoring means that there is widespread evidence of the continuing success of these activities;

- at **Kincorth Hill** the habitats and species are considered to be relatively robust, although management is aiming to address encroachment of heath and grassland by scrub and non-native conifer species.

Stakeholder consultation did not provide many further insights into this issue. It was noted that a significant proportion of LNRs have been designated because of their biodiversity qualities. Around half of the site manager respondents indicated that there had been habitat and species improvements on the LNR in question, though in some cases this was attributed to wider trends or processes including changing land

management practices or the effects of climate change. Improvements included increasing numbers of particular species or greater species diversity and better management of access where it affects sensitive habitats. It was also noted that, particularly in the case of larger, more rural and wetland or intertidal LNRs, there is often an overlap between LNR status and other national or international nature conservation designations. As might be expected, some of the greatest biodiversity improvements were noted where LNRs had been created on former railways and quarries etc. In a few instances respondents highlighted the conflict between conservation aims and recreation or other activities. This included disturbance to nesting birds, damage to dune systems and high levels of wildfowling.

Overall, it appears that considerable work is being undertaken to achieve conservation aims across all of the LNRs, and that this is widely regarded as the main priority for site managers (with education and access being viewed as more secondary aims). However, many of the objectives appear to be built into the plans and almost 'taken for granted' as a function of the LNR, as opposed to something which is being actively promoted (eg by reporting good practice and innovation).

The management plans did not appear to emphasise instances of **management expectations being exceeded** within the sample included in the review. Furthermore, stakeholder consultation also provided no significant evidence on this issue, though, as noted above, the greatest biodiversity benefits were indicated on sites that had been restored or created from other land uses such as quarries or railway lines.

Stakeholder consultation revealed few **additional environmental resource benefits** other than the reclamation and enhancement of derelict or contaminated land. The most frequently added form of value related to social or educational benefits. This was confirmed by the review of management plans which highlighted particular examples of good practice but did not appear to go beyond initiatives which are already widely recognised. For example, the Birnie and Gaddon Lochs in Fife illustrated areas where minerals extraction has left derelict sites, and the management of the LNR has been achieved through the restoration of land and creation of new wetland features.

In terms of achieving **strategic biodiversity objectives**, stakeholder consultation indicated that there are some isolated examples of LNRs being managed as part of wider habitat networks. These included Dumbreck Marsh, which forms one of a network of sites and Wigtown Bay where the managed area extends beyond the boundaries of the LNR. The review of management plans identified some further examples of the way in which sites are being considered in relation to their wider context. For example, the Den of Maidencraig management plan notes that the LNR forms part of the Denburn Valley, and as a result is a valuable wildlife corridor in and out of Aberdeen.

In some areas it appears that other, more numerous designations, such as SINCs may make a more significant contribution to habitat networks than the smaller number of LNRs. However, SNH Area Officers did note the potential role of LNRs in contributing to wider biodiversity objectives. Many considered conservation to be the most important objective of LNRs.

The analysis has also taken into account the role of LNRs in **delivering benefits for landscape planning and quality, such as green networks and townscape quality**. Stakeholder consultation indicated that LNRs can play an important role in relation to urban areas, with some respondents (for example SNH Area Officers) suggesting that they are less relevant in rural areas where environmental quality is generally higher.

SNH Area Officers also noted the potential role of LNRs in relation to urban greenspace, though again it was suggested by some that unless there were clear conservation reasons for establishing an LNR, other types of designation or management might be more appropriate. Furthermore, the finding that some LNRs have been designated as a means of protecting the site in question against development or inappropriate use of activity suggests that designation will in any event contribute to wider environmental planning. However, some people suggested that sites' intrinsic biodiversity value would have been sufficient to provide protection from development. Others suggested that SINC status would have provided a more straightforward but as effective means of protecting sites from development.

The management plans tend to focus more on species and habitats than wider landscape qualities of the LNRs. However there were some exceptions to this, including the evaluation of the Aberlady Bay LNR provided in its annual report (2004) which has a section on the aesthetic qualities of the site. It notes that the site is valued for its qualities of openness and wildness, but there are concerns about coastal erosion (both natural and man made), litter, and land use change which the management team takes into account within its evaluation and planning activities.

The information gathered has provided little mention of the role of LNRs in **safeguarding built heritage, culture and traditions**. However, there was one exception to this provided by Castle and Hightae Lochs in Dumfries and Galloway where the LNR includes an historic castle, and its managers have submitted a bid to the HLF in order to seek additional funding. Within the questionnaires, other site managers had limited expectations about the potential of this source of funding.

Stakeholder consultation revealed little evidence of LNRs **contributing to wider biodiversity planning and management**. Only one respondent, a policy officer, indicated that LNRs were referred to in the relevant Local Biodiversity Action Plan. One SNH Area Officer argued that it was important not to dilute efforts by duplicating LBAP activities and greenspace projects with LNRs. There were few direct references to this within the management plans that were included in the review.

The **Nature Conservation (Scotland) Act 2004** places duties on public bodies in relation to the conservation of biodiversity. In particular it strengthens protection for Sites of Special Scientific Interest (SSSI) and also strengthens wildlife enforcement legislation. It also amends legislation on Nature Conservation Orders and provides for Land Management Orders for SSSIs as well as requiring the preparation of a Scottish Fossil Code. There was no evidence from the stakeholder consultation of LNRs or the management plans, which established how they are helping to deliver these new duties.

2.2   LNRs and health

Relatively little evidence has been gathered which sheds light on the role of LNRs in achieving health benefits. The management plans identified few examples of where health measures have been prioritised as a 'headline' or ongoing activity for site managers.

However, it is thought that they are likely to provide most health benefits by providing scope for individual and informal use. In terms of **the use of LNRs to encourage higher levels of physical activity**, 15 of the 16 site manager responses indicated that LNRs provide health benefits, particularly in terms of local people using the sites for walking and jogging. Three site managers noted that where path networks were

improved the level of use by local people increased. The further potential of LNRs in providing health benefits is reflected in the suggestion by one site manager that the Scottish Executive should increase funding (to greenspaces in general) to increase their health benefits. In terms of **initiatives which specifically aim to deliver health benefits in areas of disadvantage**, the stakeholder consultation identified use of Birnie and Gaddon Loch LNR in Fife by local day care centres and by the Green Gym Initiative. No instances of LNRs being used for **health related promotion or education** were identified beyond this example.

It is useful to note that LNRs in England have been considerably more proactive in meeting the health policy agenda. Berry's 2005 paper on past present and future LNRs in England noted that Wildspace! has helped establish almost 100 health initiatives, and that healthy walks are being taken forward on many sites. In addition, many of the new reserves which have been taken forward with the assistance of Wildspace! are within areas of social and economic deprivation, further strengthening their health benefits. However, whilst there are many examples of proactive community involvement in LNRs in England, English Nature continues to support further work to promote health and social benefits and participation in LNR management (Berry, 2005).

2.3   Case study: Kincorth Hill, Aberdeen City

2.3.1 Site description

2.3.1.1 Background to the site

Kincorth Hill LNR provides an example of partnership working and community involvement in the management of the LNR. Kincorth Hill lies approximately 2 miles south of Aberdeen City centre to the south of Kincorth housing estate. The site covers an area of approximately 41ha and was designated as an LNR in 1997. The reserve and adjacent moorland are identified as a District Wildlife Site in the Nature Conservation Strategy for Aberdeen City, 1992.

The site was designated following pressure from developers to build on the site or create a golf course which resulted in the local community wanting the area kept for recreation and nature conservation.

The site is surrounded by housing on three sides and moorland, agricultural land, housing and woodland on the remaining boundary. The hill is covered by an extensive network of paths of varying condition and has a small informal parking area. The site is well used by school groups and local people for walking, jogging and wildlife observation. The site adjoins back gardens of the neighbouring houses and also an area of farmland and is readily accessed from a number of points from the adjacent housing estate.

The key environmental assets of the site include heathland (both wet and dry), extensive gorse scrub, grassland, small coniferous plantations, small broadleaved plantations and a small artificial pond. Habitat improvement has focused on preserving the heathland as it is of greatest environmental significance at a national level. Heathland is becoming increasingly rare nationally and both the heath and grassland are threatened by scrub encroachment and invasion by non native conifer species. There is potential to enhance the nature conservation value of the reserve through habitat management. There is also potential to increase the educational use of the reserve particularly by local schools.

Heath and pine trees at Kincorth Hill LNR

2.3.2 Key issues

The site is used by the local young people to get away from areas within the neighbouring housing scheme which are now monitored by CCTV which is driving antisocial behaviour onto the Reserve. This has led to a number of problems including:

- fire raising, mainly in the gorse area;

- antisocial behaviour (including underage drinking);

- motorbikes;

- damage to trees (mainly to create dens).

In 2005 there was a high profile campaign with the Police and Fire Service to try and reduce the number of fires as the resources required to fight the fires can result in inadequate cover for the remainder of the City so putting life and property at risk.

2.3.3 Management

Kincorth Hill is managed by Aberdeen City Council Ranger Service. The work of volunteers is important for the management of the reserve. This includes groups such as Aberdeen University Conservation Volunteers, the Alford Centre, local Kincorth groups and public volunteer days. The reserve also has a volunteer management committee and a small group of volunteer wardens who regularly patrol the hill and report back to the Rangers.

The ranger is a Community officer within Community Services in Aberdeen City Council. The site was designated an LNR to preserve and protect it from development. Kincorth LNR is one of the larger open areas within walking distance of the community and the housing scheme is fairly dense with little greenspace. The site is owned by Aberdeen City Council and some of the original community involved in designation are still involved in the site.

There are four LNRs in Aberdeen City and each site gets a visit on average one day a month to check the site for any safety issues etc. Some practical work on the site is done through contracting services and the rangers informally check up on work being done for this. The site has received a slightly greater level of ranger visits due to the issues of anti-social behaviour on the site, particularly during the summer months.

The management plan was developed in consultation with the management committee. The review of the previous management plan was started in 2003. The previous management plan was not particularly relevant to the site and the management aims were not practical to implement with the available resources. All of the four Aberdeen City LNRs have management plans. The ranger service has also been developing management plans for non LNR sites. The ranger service produce an annual work programme agreed with SNH for all sites and some prescriptions are individual to Kincorth. The LBAP is covered in the management plan as there is no need to duplicate the prescriptions in both documents. There are also targets set out in the management plan.

In comparison to other similar sites the LNRs have their own separate budget of £8000 shared between the four sites from Aberdeen City Council. For all other sites the funding comes from the Grounds Maintenance budget. The LNR budget can also be used to match fund against SNH and other funding sources.

2.3.4 Voluntary management committee

Aberdeen City LNRs probably have historically had more community involvement in the management of the sites than other locations due to the role of management committees. With a move towards more community involvement with local authority work other sites are also getting increased levels of community involvement.

The voluntary management committee for Kincorth Hill includes some of the people who were involved in the establishment of the LNR. A new community council has recently been set up for the area. There has also been increased police involvement at the voluntary management committee meetings. The committee meets about four times a year and one of these meetings includes a site visit where management proposals and issues are discussed. There are about 30 individuals and organisations on the voluntary management committee, although the statutory bodies don't usually attend unless there is a key issue of relevance. The usual attendance is around 10 individuals and the meetings are held at the council centre at Loch Insh Farm. There are eight volunteer wardens who patrol the site and they are mostly retired people who regularly walk their dogs on the site. They have council ID badges which state they are volunteers and two years ago they got council ranger fleeces with the ranger logo funded by SNH LNR grant. The volunteer wardens are the eyes and ears of the site and they report any issues to the ranger service.

2.3.5 Targets and monitoring

Current levels of site monitoring are minimal although the whole of Aberdeen has been the subject of an Integrated Habitat Survey through the NE Scotland Biological Record Centre in partnership with Aberdeen City Council.

Biodiversity objectives set out in the Kincorth Hill LNR Local Biodiversity Action Plan include:

- to maintain and enhance the range and extent of habitats within the reserve;

- to encourage access to the reserve for informal recreation while attempting to minimise the impact on wildlife;

- to encourage the use of the reserve for environmental education;

- to encourage community involvement in the nature conservation and management of the reserve.

2.3.6 Educational and volunteer involvement

The area has also provided an opportunity for local community groups, schools and residents to get involved in their local environment. These include public events, volunteer days, LNR open days and increased press coverage.

Local businesses have been involved in the LNR through team building gorse clearing work on Kincorth. The oil companies in particular are keen to do environmental work and the businesses approach the ranger service to ask to for work opportunities. The involvement of the local businesses has been purely on the basis of businesses approaching the ranger service when they require. In the past the ranger service tried approaching businesses but without great success as those involved with environmental issues tend to move on within the organisation.

BTCV Green Gym undertake projects in Aberdeen every Monday and have 8–10 sessions a year at Kincorth Hill. When the Green Gym was being established BTCV approached the ranger service to ask if there would be projects which they could get involved with. They work with the Ranger service to put together flexible work programmes. BTCV are also looking to set up a second Green Gym in the city. The ranger service also run a series of pubic volunteer days on Saturdays throughout the winter months. A couple of sessions a month are held at Kincorth Hill. These are advertised in the press and leaflets. Numbers of volunteers attending are variable although up to 15 have attended. In the last month the ranger service has started working with community service offenders who will carry out work on Kincorth Hill. The community service offenders leader approached the ranger service, as involvement in this type of work depends on the interest of the leaders.

2.3.7 Educational involvement

Three primary schools and the Academy lie within walking distance of Kincorth Hill. The rangers run a summer events programme which is aimed at children and usually based around mini beasts. All the schools have one or two visits to the site in the summer term and one primary has a health week where the rangers are invited along to talk to the children about the health benefits of exercise on Kincorth Hill. The ranger service also has education packs which were developed for all LNRs and distributed to schools. In addition a project working with children in local schools identified as 'at risk' in terms of their attendance and behaviour at school are involved in a programme funded by European funding which takes them out of school for two days a week to do vocational work. This will include 4–5 session on Kincorth Hill held over the winter.

2.3.8 Access

Kincorth Hill lies in close proximity to many homes and work places and is important for local people to walk dogs, walk, jog and to watch wildlife.

2.3.9 Reducing fire raising

The 2005 campaign with the police and fire service was undertaken in response to the large number of fires being started on the site during the summer months. The fire service approached the ranger service as the fires were taking up their resources and causing community safety issues. It was agreed to provide a loop of path suitable for fire engines during the summer. This was achieved through path widening and cutting back of trees and was funded through the Grounds Maintenance budget as it was required for community safety purposes. The ranger was invited to join the Community Safety Partnership Wilful Fire Raising Task Group which convened to address all issues of fire safety in buildings and the outdoors. It was agreed to try and establish a relationship with the local schools by visiting the schools to talk about the issues. However there were some problems with getting the schools to respond to this in 2005, and this will be taken forward again in 2006.

The Community Safety Partnership established joint patrols with the police, fire service, community safety officers and the Countryside Rangers to patrol the LNR on Friday and Saturday evenings during the summer which reduced the number of fires on Kincorth. The scope to develop this initiative further in the future will be explored based on an idea from the Community Safety Partnership of the 'Gramps Fire Ranger Initiative' which will be implemented if funding for an additional part time member of ranger service staff can be funded through the Community Safety Partnership in the coming year.

2.3.10 Future plans and resources

The future plans for the Kincorth Hill LNR are continued management for nature conservation, recreation and education. The future of Kincorth LNR will include continued habitat and gorse management, alongside management of anti-social behaviour. The ranger service are looking to improve management of the woodland on the LNR which consists of areas of planted deciduous and coniferous woodland which require thinning. A Woodlands In and Around Towns (WIAT) project has been taking place across Aberdeen and funding for works on Kincorth is being accessed through the project.

Widened path for fire engine access at Kincorth Hill LNR

Existing funding is accessed from the local authority Revenue budgets, grants from SNH, SFGS, Greenspace Scotland, Aberdeen Countryside Project, and business sponsorship. Local businesses have supported projects including Shell and BP, DTI, and Lloyds Register of Shipping who have had staff volunteer days on the LNR's as team building projects with 30–70 staff. They are often able to support these days with cash funding for projects for materials. They have also part funded signage and leaflets for the sites. Current resources include grant aid from SNH LNR Grant scheme for a site leaflet, site signage, mechanical gorse management, small scale woodland thinning and provision of uniform fleece jackets for volunteer wardens.

A key issue is the difficulty in accessing funding for maintenance of projects. In addition increased staff presence would be beneficial in tackling issues of anti-social behaviour and greater working with schools and community groups.

The main ways to overcome these barriers were identified by the site manager and the policy officer as ring fencing long term funding for both staff and site management at a local and national level. The site manager also wished to see increased funding for greenspaces in general in view of the potential that they have to improve health.

2.3.11 Future LNR designation

The sites designated as LNRs are some of the better nature conservation value sites in Aberdeen City however Kincorth Hill LNR designation was largely driven by the planning department. There have been no new recent designations as the time required for the development of management committees is significant. The other LNRs are all owned by Aberdeen City Council, except Donmouth which is leased from the Crown Estate and is managed through a management agreement.

The main contribution of LNR's was felt to be in providing better access to funding, although total funding, especially for maintenance, is inadequate. The benefits the LNR offered were not felt to be significantly greater than other countryside sites (with other similar designations). The benefits of LNR designation are protection from development and long term protection of the site in the local plan.

There are no further plans to propose other LNR's in the Aberdeen City Council area at present. The reasons given for this were a lack of practical or financial support from SNH and a lack of staffing resources to manage more LNR's. It was also noted that it is unlikely that there would be sufficient local interest to support a number of sites in a relatively small geographic area. A further problem identified was that many potential LNR sites are also in private ownership where the Local Authority would not have a significant interest in the site to warrant the LNR status.

View north from Kincorth Hill LNR

2.3.12 SWOT analysis

The following table sets out a SWOT analysis for Kincorth Hill LNR.

Strengths	Weaknesses
Well used site	Lack of funding for maintenance
Signage and leaflets for the site	Lack of staff presence on site
Volunteer involvement	
Volunteer wardens	
Opportunities	**Threats**
Role of greenspaces in health agenda	Lack of funding and resources, particularly maintenance funding
Involvement of businesses to support projects	
Greater staff presence on site	
Community Safety Initiative to tackle fire raising	Vandalism and antisocial behaviour

2.4 Social inclusion and community empowerment

SNH LNR guidance states that they should be places "*where people can come to experience, enjoy, learn about and get involved with nature … a LNR should be a signal to the public that this is somewhere to go to experience nature*" (SNH, 2000).

SNH prepared an inventory in 1995 (SNH, 1995) which identified the key characteristics of sites, and highlighted problems arising from some key sites. It concluded that at some sites there has been a lack of direct community involvement, although there are notable exceptions to this including Donmouth and Scotstown Moor in Aberdeen where community participation has been actively sought. Jamieson (1995) stated that only half of Scottish LNR frameworks actively encourage community involvement and that although the value of including communities is recognised often the only real community input is through membership of a site advisory committee.

In 1998 the Urban Forum of the UK Man and Biosphere Committee (Urban Forum of the UK Man and Biosphere Committee (1998)) made recommendations on how more LNRs could be encouraged. In particular, this work focused on ways in which management approaches could be used to deliver maximum benefits. It recommended partnership working and networking, the setting of minimum standards and improving community involvement. It also recommended establishing management advisory groups with inputs from local universities, specialist societies and communities.

The evaluation therefore considered whether LNRs are **stimulating community involvement and inspiring use by communities who may not otherwise have positive recreation alternatives (eg young people)**. Stakeholder consultation indicated that there are number of good examples of LNRs being managed and developed with the involvement of the local community. These include a number of LNRs within the Aberdeen City area where communities have been involved in activities such as wildflower and tree planting and bird box making. There are also innovative approaches such as the Dumbreck Marshes Arts Project. There were only three examples where site managers indicated that LNRs make a

significant contribution to social inclusion. These were Straiton Pond Midlothian, Birnie and Gaddon Loch, Fife, and Dumbreck Marsh, Kilsyth. Straiton Pond and Birnie and Gaddon Loch are regularly used by day care centres and disabled groups and all three sites are used by social services and the parole office for those doing community service.

However, set against these good examples, some SNH Area Officers were concerned that a lack of community motivation, support, knowledge and interest in the natural heritage remained as a barrier to the creation of additional LNRs. In East Ayrshire (which has no LNRs) the area officer considered that Country Parks provide wider community (and educational) benefits.

In terms of more **general shared ownership of and responsibility for LNRs**, seven of the 16 site managers stated that LNRs had made a significant contribution to partnership working through the establishment of a LNR management committee with representation from local councils, user groups, agencies and land owners and managers. However, community representation on these committees was not universal so it is likely that shared ownership and responsibility varies across the suite of LNRs. Designation was only identified as a response to community involvement in the case of two LNRs. Some user group respondents indicated that they are not formally involved in a management committee, but have their views represented via local rangers. From the review of management plans, the Kincorth Hill LNR appears to provide a good example of an LNR where volunteers are actively contributing to site management (with a volunteer management committee etc).

In terms of user numbers, the management plans provide some information from monitoring of the use of the LNRs. The evaluation of the 1998–2003 management plan for the Eden Estuary stated that the LNR has grown in popularity amongst local people and within the wider birdwatching community. However, actual numbers of people attending talks or joining guided walks declined over the plan period (186 people compared to 330 in the 1993–97 period). However, over the same period of time there was an increase in the average number of students engaging in educational use of the LNR each year. Monitoring has shown an increase in recreational and education based users using the LNR in recent years at Aberlady Bay.

Stakeholder consultation indicated that **most sites are managed for access and many are promoted through the development of path networks and initiatives such as guided walks and visits**. There were, however, a number of LNRs where access and related activities were noted as creating environmental sensitivities. Issues included the impact of kite-karting on sand dunes, the effect of dog walkers on ground nesting birds, litter (noted by almost half site managers), vandalism (noted by over a third of site managers), seasonal effects associated with changes in water levels or nesting seasons and examples of other anti-social behaviour related to alcohol and drugs. Aberlady Bay LNR was highlighted as an atypical example since access is not promoted due to the sensitivities of breeding and overwintering birds. One manager suggested that bye-laws had been superceded by the Land Reform (Scotland) Act and the right of responsible access, though this had implications for management rather than necessarily a loss of control. SNH Area Officers noted that the lack of ring fencing of Scottish Executive 'access' resources as a problem.

These issues were confirmed further through the site management plans. The potential tension between encouraging public access and managing LNRs for ecological benefit is discussed within the Birnie/ Gaddon Lochs Management Plan. It suggests that although it is positive that the site is very attractive to visitors, the emphasis of the management should be on encouraging as diverse a range of species as

possible. As a result, it emphasises the need for careful and proactive management of access and suggests that new sites provided by continuing minerals extraction could provide alternatives for recreational users, thereby reducing pressure on the LNR lochs. Use of the lochs at present is limited to activities which are considered to be 'low impact'.

The Eden Estuary Management Plan states that recreation is currently the primary use of the site, with birdwatchers, walkers, wildfowlers, anglers and horse riders regularly using the site. Like Birnie and Gaddon Lochs, the key concerns relating to the site focus on disturbance of breeding bird populations. This is also a key concern at Aberlady Bay where breeding birds are largely protected from disturbance by encouraging visitors to stay on the main footpath and using sign posting and hedging to provide further guidance. An exclusion area has also been introduced, which has generally been positively responded to by visitors.

Work was undertaken in the early 1990s at Donmouth to provide access through informal footpaths, including for disabled people. A boardwalk is provided to provide access to the dunes whilst channelling users away from sensitive areas. At this LNR, it is not thought necessary to restrict access, but it is acknowledged that there may be a need to steer users away from sensitive areas in the interest of conservation.

Similar to the problems at Kincorth Hill, the Den of Maidencraig Management Plan notes that there have been problems with vandalism of the site, including damage to gates and fences, interpretation boards, burning of picnic tables and dumping in the pond. Dog fouling is also an issue arising from access to the site.

At Aberlady Bay car parks and a footpath are provided and their use is monitored. The footpath aims to steer visitors away from more sensitive areas of the LNR, but the management plan notes that they also require management in their own right.

The Waters of Philorth LNR is popular amongst recreational users including anglers and dog walkers. Access to the area was already popular prior to the LNR designation, and it is considered to provide a 'quiet alternative' to the busier nearby Fraserburgh beach. As a result, access management of the area has been established since the mid 1980s and remains low key. A car park and picnic area are provided, and there are walkways and fencing which steer visitors away from fragile dunes. However, there are also concerns about motorbikes and quad bikes entering the beach from Fraserburgh.

2.5   LNRs and economic development

The evaluation suggests that, to date, little emphasis has been placed on the role of LNRs in **achieving economic development**. No significant information on methods used to achieve economic development was drawn from the stakeholder survey findings and the review of the site management plans. However, the desk review findings showed that Paisley Moss LNR in Renfrewshire is owned by BAA Scotland (SNH, 2001) and is managed by a partnership including the airport, Renfrewshire Council and SNH. The ownership of the LNR has given BAA Scotland an opportunity to demonstrate its environmental stewardship policy and also work with the local community. This includes involvement in the management committee for the Moss, working towards a biodiversity action plan and hosting fun days involving local families. Overall, this example shows working with a business can help achieve the aims and objectives of an LNR, but that it can also have positive benefits for business in terms of providing a practical demonstration of commitment to the environment and the local community.

Some references to **tourism initiatives** were made in questionnaires, with some site managers noting the role of visitor and interpretation centres for example at Montrose Basin and being developed with HLF funding on Orkney. Within the site management plans, there were few direct references to tourist use of LNRs, although the review of showed that there are two distinct types of sites: those used primarily by local people and those where visitors from further afield represent the dominant group. Kincorth Hill, for example, appears to be a relatively local level resource, as illustrated by the high level of very local inputs to the management process. Similarly, the majority of users of the Water of Philorth are known to originate from the local area, particularly the urban area of Fraserburgh. In contrast, despite not being actively promoted, Aberlady Bay is more likely to be used by visitors travelling from a greater distance, as a result of its regional significance and in light of the estimated number of users. In practice, it is expected that the majority of LNRs include of mix of these two types, and that most include some degree of local involvement.

Some further examples of management which aims to stimulate tourist use of the LNRs were drawn from the management plans. For example, a leaflet promoting the Waters of Philorth has been distributed to tourist outlets in the area.

2.6   Case study: Straiton Pond

2.6.1 Site description

2.6.1.1 Background to the site

Straiton Pond LNR is a key example of where a previously derelict site has been improved and developed through positive management. Prior to designation the site was in poor condition being used for bike scrambling and it suffered from landfill impacts, pollution, dereliction and neglect. The owner of the site had brought forward a housing proposal, generating considerable opposition from the local community. Edinburgh District Council became involved in 1982, aiming to create an LNR for the site's natural and educational interest. The site owner was not willing to sell and protection could not be secured and therefore steps towards the compulsory purchase order were taken, which was confirmed in 1985. The council declared the site an LNR in 1991, and following the local authority reorganization in 1996, the LNR was transferred to Midlothian Council.[1]

The 5.2ha site is a former clay quarry, brick yard, landfill site and railway line that has been converted to two ponds with young woodland/scrub and a wildflower meadow. The two ponds are home to swans, mallards, tufted ducks, little grebe, coots and palmate newts. The scrub provides a habitat for wildlife including yellowhammer and reed bunting. Habitats and species have improved tremendously on site from a wasteland to a thriving reserve with a range of habitats and locally scarce species including northern marsh orchid and earth star fungi. The site is surrounded to the north by the city bypass, a retail park to the west and farmland and industrial land to the south and west. The location of the Straiton Pond LNR is felt to offer a large number of significant benefits both to the local area and to the wider community.

The biodiversity on the site is good and the significant increases in biodiversity over recent years in particular are attributed to lower levels of disturbance, in turn reflecting to access and biodiversity projects and improved site management. This has included Northern Marsh Orchid being found in the wildflower meadow. Considering its urban context, the site has benefited in terms of increasing biodiversity, even if this is not as high as at other conservation sites with more obvious biodiversity value.

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[1] http://www.snh.org.uk/pdfs/lnrs/finguide.pdf

Access to local communities is good by car, bike, and on foot. The site is well used by locals and visitors to the retail park and is linked into the disused Dalkeith-Penicuik railway line and SUSTRANS cycle network. The railway was proposed by the Edinburgh Greenbelt Trust as a cycleway but the proposal did not secure funding.

Management of the site has included a 10 year program of clean up. This has included pond improvements, planting of native broadleaves, scrub management and hedge planting for farmland birds, the creation of a wildflower meadow for butterflies and access and recreational facilities upgrading. The aim is to increase wildlife, improve the appearance of the area, and promote use of the area for all. Formal and informal monitoring as well as an annual Ranger Service Report to SNH takes place. No current formal Management Plan exists.

The designation of the site as an LNR is mainly perceived to have protected the area from the surrounding development pressure, especially for housing. The site manager also felt that the Straiton Pond LNR had secured partnership working with land mangers and facilitated community involvement. Awareness of the area was also dramatically improved and this had associated benefits for improving understanding of the natural environment, acting as an educational resource, improving health through increased recreational use, and developing skills through conservation tasks for volunteer groups.

2.6.2 Key issues

The main problems associated with the site include:

● vandalism;

● litter (both on site and blown in surrounding areas);

● illegal fishing;

● bonfires.

However, these problems are decreasing as the site is continually improved and developed. Site furniture has largely been constructed out of stone for durability and includes a 'bird hide' constructed by the Midlothian Criminal Justice Scheme and painted by local school children.

The long straight entrance track acts as a wind tunnel and collects litter particularly from McDonalds which is opposite the site entrance. The ranger service has an agreement with McDonalds to litter pick down the track once a week. The ranger service regularly visits McDonalds to negotiate with them.

Photo courtesy of Midlothian Council Ranger Service
Entrance to Straiton Ponds LNR

The adjacent set aside field is also sometimes used by travellers and this presents problems for the reserve with litter and human fouling.

The re-grading of the pond edge is the next main scheme to be carried out on site and will potentially be funded by landfill tax habitat enhancement initiative. The aim of the work will be to improve safety and wildlife value alongside visual improvements to the pond. It is recognised that visual improvements to the site improve local stewardship.

2.6.3 Management

The management plan for Straiton Pond dates from the 1990s. A more recent ranger service sites review document (2000) sets out an overview of key management issues for the site. The Ranger Service is currently working on another two management plans and will possibly revise the Straiton Pond Management Plan soon. The management for the site is currently passed on through word of mouth although a plan is more likely to be written when the main works have been completed on the site. The site is currently still evolving and the ranger service are looking for new opportunities to develop it further and it is thought that a management plan could be potentially restrictive for the site. However management plans are frequently required for grant applications eg to the Forestry Commission.

The ranger service commitment to the site is 0.5 days a week, with more time in the summer months and an annual outdoor event. The senior ranger also oversees the management of six sites including Straiton Pond.

The Rangers felt that the site would be managed the same whether or not it was an LNR, and felt that the LNR status is maybe not exploited to its full potential. However it was recognised that the LNR status gives the site a sense of security to support site management activities. Visits from groups such as the natural history society probably only take place because it is a designated site.

Fishing is not allowed on the site. It was hoped to allow permit fishing on the pond to encourage management of fishing but power lines are too close to the water. The pond has a very steep profile and there is a newt pond on the site which is shallow and seasonal.

2.6.4 Education and awareness

Local recreation use is high, with walking by locals and visitors to the nearby retail park. Following installation of an 'access for all' path and a wheelchair accessible outdoor hide, the reserve is regularly used by disabled groups and individuals. The Ranger Service programme of events also attract a diversity of visitors, helping to achieve social inclusion in the area.

The reserve forms part of the Midlothian Ranger service education programme; schools can book an education session with the Ranger Service. Schools have been involved on the site in key projects and the rangers approached the schools. The schools were involved in painting the stone seats and hide. The initiative 'Natural Connections' is currently being piloted as a means of getting local schools involved in local nature sites. The next stage of piloting will involve 12 schools and it is hoped that one of these will be close to Straiton Pond.

The rangers are hoping to undertake an annual project with the school looking at getting Primary 4s involved in order to educate future teenagers who may undertake antisocial activities on the site

A new project is proposed involving the local primary school with entrance improvements and it is hoped to get McDonalds to fund some of the work such as providing the required plants.

2.6.5 Events and publicity

There is good press coverage of events and activities on the site and this appears to have increased visitor numbers and levels of awareness. The ranger service try to hold at least one event on each site every year. This event is publicised in the Outdoor Diary and the press and people are invited to drop by. Last year the event at Straiton attracted 67 people, although the previous year this figure was 22.

The Outdoor Diary covers Lothian and the Borders and sets out events from March to March each year. It is funded by FCS, SNH, Treefest and Scottish Borders Council.

Photo courtesy of Midlothian Council Ranger Service
Local school children painting the bird hide at Straiton Ponds

2.6.6 Volunteers and work parties

Midlothian Criminal Justice Scheme helps develop skills and interest in the natural heritage and makes an important contribution to the work carried out on site. The teams do about two days work a week and the LNR relies on these as they have no other work teams unless they pay for the council work team.

Lothian Conservation Volunteers come to the site 2–3 days a year but the numbers who attend varies quite widely (up to 15 volunteers). The Green Team offer anyone aged 14–25 the chance to take part in environmental projects throughout Edinburgh and the Lothians and visit the site 2–3 times a year.

The Lothian Amphibian and Reptile Group also do work on the site but only one or two people attend. Loanhead Community Group used to do work on the site but there is now no involvement on the site as key individuals are no longer driving the group.

The relationship with the volunteer groups is traditionally carried out through groups approaching the ranger service. The rangers are contacted by the groups who are fairly independent with their own insurance and tools and the Rangers know that they will get a high standard of work from them.

2.6.7 Access

Path improvements and hide construction have been carried out over the last two years funded by Midlothian Council and implemented by the Midlothian Criminal Justice Work Teams. Disabled access to the site includes visits from Cherry Road day care centre and individuals. Following the installation of the access for all path and wheelchair accessible outdoor hide, the reserve is regularly used by disabled groups and individuals.

2.6.8 Resources

The ranger service is jointly funded by SNH and Midlothian Council. Additional projects have been funded through SNH grant scheme and New Opportunities Fund (now the Big Lottery Fund). To date funding has been adequate, however the major project of re-grading the pond edges is still to be undertaken in the future and opportunities of future funding from local businesses on the retail park will be explored.

Photo courtesy of Midlothian Council Ranger Service
Local disabled group at Straiton Ponds LNR bird hide

2.6.9 Involvement of local businesses

Local businesses have been involved in the site through Homebase providing free paint and McDonald's involvement in litter picking. The support from McDonald's is expected as they aim to support local environmental projects. The ranger plans to get all businesses in the business park involved in Straiton Pond to provide contributions in kind or whatever is available eg free bird seed from Pets at Home.

2.6.10 Future plans

The future plans for the Straiton LNR are to continue the visual site improvements, to improve paths for drainage and access by all, to carry out work on the pond, to build on the current education programme, and to encourage a sense of ownership and responsibility for the site amongst businesses in the surrounding retail park.

Further LNR's in the Edinburgh area are a consideration, but in other parts of the Lothians are unlikely. The reasons for this were felt by the SNH officer to be due to the lack of suitability of further potential sites and the variable levels of promotion of LNR's by individuals within Councils.

Levels of funding are not deemed a restriction to further LNR designations.

2.6.11 SWOT analysis

The following table sets out a SWOT analysis for Straiton Pond LNR.

Strengths	Weaknesses
Remediation of a derelict and contaminated site Access for all path developments and accessible hide Strong levels of community involvement Friends of Straiton LNR	
Opportunities	**Threats**
Further improvements to the site Involvement of local businesses in management of the site	Vandalism and anti-social behaviour

2.7 Regeneration and sustainable settlements

The questionnaire findings provided no significant evidence in terms of the role of LNRs currently **contributing to a programme of environmental improvements or meeting open space standards and strategies**.

In terms of their **accessibility to the communities surrounding them**, as noted above, a significant proportion of LNRs are managed to facilitate or promote access, particularly for local communities. Path networks, guided walks and other promotional activities have been used in a number of cases to encourage use by local people. To a lesser degree, communities are also involved in management committees and practical measures such as surveys or the erection of bird boxes.

The Donmouth LNR management plan notes that the site is well used, partly because it is located close to the centre of Aberdeen, making it accessible for a large number of people. As a result it is well used for recreation including angling and birdwatching. However, there are also concerns about the impacts of recreational use on the area, including damage to dunes by vehicular use and litter (from users of the LNR and the nearby areas).

Kincorth Hill is largely accessible, and is located close to a large housing estate and industrial estates. The Management Plan notes that "*increased recreational use of Kincorth Hill means there is more awareness of the hill and its value to the local communities and therefore reporting of vandalism and other problems such as fire raising.*" However, its location close to housing means that there are concerns about the LNR becoming increasingly isolated from the surrounding countryside, if surrounding areas of land are developed in response to high levels of demand.

SNH Area Officer respondents, whilst noting that lack of community interest can be a barrier to the creation of new LNRs, highlighted the unique combination of community involvement and nature conservation represented by LNRs. Several LNRs have community participation events while at the Eden Estuary the LNR centre is staffed by local volunteers. In Edinburgh community involvement has been promoted and supported by a creation of a series of 'friends of …' groups.

One SNH Area Officer suggested that LNRs should focus on **local level qualities** and that in any given area there are likely to features of interest. There was a lack of consensus on whether conservation of locally important species or habitats should be the key priority of LNRs or whether there should be an equal emphasis should be on non-environmental benefits.

User group respondents indicated a range of benefits associated with LNRs including relaxation, recreation, education and wildlife watching. The latter appears to be more in terms of general activities such as bird watching rather than a focus on specific species or habitats, though this may vary according to sites' characteristics. User groups highlighted concerns about particular activities or levels of activity that could affect wildlife.

2.8   Education

Section 15 of the 1949 Act sets out the first purpose of LNRs as "*providing, under suitable conditions and control, special opportunities for the study of, and research into, matters relating to the flora and fauna …*". "*Study of, and research into*", can imply:

- scientific, "under-the-microscope" use involving a process of formal study; or

- a more general, casual, "experiencing nature" use in which people might engage while visiting a site (SNH, 2000).

The SNH paper 'The Future of Local Nature Reserves in Scotland' (McManus, 2003) states that 'LNRs provide a unique role in the education market provided that sites are within the locality of the school and a half day visit can be very valuable. They are local sites valuable for communities and provide education for all ages'. In particular it is noted that they provide different educational benefits to larger sites such as Country Parks and NNRs. Research by Jamieson (1995), however concluded that although

environmental education is highlighted as a function of LNRs this is primarily only achieved by allowing access to the site, with proactive education being rare at the time of the study.

Since then, the SNH paper 'The Future of Local Nature Reserves in Scotland' (McManus, 2003) noted that only four out of the existing 36 LNRs in existence at that time had education packs. It stated that although there can be drawbacks to education packs (they can go out of date quickly and require a lot of time and effort) perhaps a generic LNR education pack could be formulated by SNH and adapted to local circumstances.

However, it appears that some progress has been made to achieve environmental education aims since Jamieson's work. Site managers highlighted a range of **educational and awareness raising activities focused on LNRs**. These included guided walks, interpretation and educational activities, and regular newsletters in local papers. More formal educational activities include links with local schools, colleges and universities, highlighted by all site managers. One SNH Area Officer highlighted the importance of LNRs in getting people involved in conservation issues, local environmental improvement, habitat enhancement and delivering benefits for biodiversity.

The evaluation of management plans provides further insights into the **education and interpretative materials** in use on the sites. Most of the LNRs appear to provide interpretative materials at least in the form of on-site boards and leaflets. For example, at Waters of Philorth, a board in the car park introduces the site, whilst further boards within it provide further detail on specific habitats, species and natural processes. In addition to this, it is proposed that this could be extended to providing short newspaper articles in the local press, to raise awareness of its habitats and species and provide information on management and repair work being undertaken on site.

The Donmouth LNR produced a Teachers' Pack and a CD ROM entitled 'Rhythms of the River' as part of the Aberdeen Alternative Festival Community Programme in 1996. This brings together poetry and music to provide an insight into the natural history of the area. In addition, schools have made use of the LNR to provide an outdoor classroom for studying invertebrates and shore life. Wildlife groups also hold guided walks in this area. The RSPB has also provided a temporary classroom and information boards (due to be revised) and a leaflet has also been developed to interpret the wildlife value of the site. An education pack has also been prepared for the Waters of Philorth LNR.

At Aberlady Bay, guided walks and talks are used to educate people about the natural heritage value of the reserve. During 2004 there was a slight increase in groups using this facility. An interpretative board and natural history updates and information sheets are also provided. A telescope is also provided for users to view the birds.

2.9 Case study: Birnie and Gaddon Lochs

2.9.1 Site description

2.9.1.1 *Background to the site*

The close collaboration between the planning authority, Fife Sand & Gravel and Pioneer Aggregates (UK) Limited resulted in the creation of the two new lochs from a sand and gravel working. Progressive restoration to provide a range of wetland habitats was secured by means of planning conditions and a planning

agreement. The lochs are now a valuable resource for conservation and outdoor recreation[1]. Birnie Loch was first acquired by North East Fife District Council in 1991 and Gaddon Loch was purchased in 1996. The LNR was designated in 2000 and covers 28.2ha.

The designation of Birnie Loch was supported by the Ranger Service. The designation process began in 1996 and was supported by the planning department but due to local authority reorganisation there was some delay in the designation process and this was further delayed due to the slow rate of progress through the law and administration department.

The primary environmental assets of the site include restored wetland and lochs plus regionally important grassland and several LBAP species. In particular, habitat improvement has encouraged more ground nesting waders, more LBAP flowers and otters on the site. Birnie and Gaddon Lochs provide an area for low impact recreational uses including walking, bird watching and picnics and there is a bird hide on each loch. Fishing, boating and watersports are prohibited on both lochs.

The site is regionally important. The marsh area is of a regionally important size, particularly in light of the current loss of wetland areas through drainage and abstraction. There has been an influx of wildlife species since Birnie Loch was created which has been encouraged by management practices. The lochs are a breeding site for several bird species which are either regionally or nationally important. There are also several regionally rare plant species.

The aims of designation of Birnie and Gaddon Lochs as an LNR has been the protection of wildlife, and access to grants. The LNR status has also raised awareness in the community. The original aims of designation have been realised and there is good community involvement. Birnie and Gaddon Lochs car park is visited by 50,000 vehicles a year which equates to 135,000 visitors.

The LNR attracts visitors from all of the major nearby towns and the two bird hides are operated on a key system. Keys are available to buy and between 300–400 keys have been sold. This provides control and security for the hides and to date has been successful as a way of managing access to this resource.

Birnie Loch LNR, Fife

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[1] http://www.snh.org.uk/about/lnr/detail.asp?id=8156

The car park is designed to draw visitors in and is quite formal with a tarmac surface, up to 20 parking spaces including disabled spaces and access to picnic tables. Birnie Loch has a more formal path network which is suitable for disabled access and Gaddon Loch has a more informal path network.

2.9.2 Key issues

The site is well used by the local community, however particular issues include:

- disturbance of ground nesting birds;

- dogs;

- illegal fishing;

- litter;

- occasional vandalism.

2.9.3 Management

Management of the LNR includes a management plan and visitor management and interpretation. Management of the sites is geared towards enhancing the value as a nature reserve, encouraging as great a biodiversity on site whilst at the same time minimising disruption from public access. The current management plan covers the period 2002–2007 and was written in 2001.

Fife Council has a strict process of time planning around the SNH work plan and agreed time inputs. Most projects work to an annual plan and this is informed by an end of year review of the projects undertaken which feed into a new work plan. A service wide annual report is produced which highlights various projects from different rangers. The management plan also provides useful baseline information on the history of the site, species lists etc. Birnie and Gaddon Lochs has twice yearly management group meetings which involve planning and biodiversity officers and SNH. The Ranger uses about 15–20% of his time on the LNR. Shortage of finance and personnel mean that management projects must be selected according to priority.

There is an agreement on Gaddon Loch for water extraction for a washing plant which was a written condition of sale and the sluice was already in place on the loch. There is a set limit on the amount to be extracted but water extraction from Gaddon Loch is positive for attracting wading birds as it exposes areas of mud.

The site is managed under management rules, not bye laws, and these are standard across all Fife Council sites, although there is scope for site specific details. The main issue for the site is dogs and wildlife disturbance. There is clear signage on the site asking people to keep dogs under control and the Ranger talks to visitors on this issue. In addition the majority of visitors are regular and aware of the issues around keeping their dogs under control.

Council grounds maintenance teams cut the grass at the car park and strim the footpaths once a month in the summer depending on the rate of growth. The grass on the loch islands is also cut once during the summer to maintain the habitat.

Gaddon Loch LNR signage, Fife

A key issue for the management of the LNR is managing visitors during the bird breeding season. Monitoring indicated that closure of the site during the foot and mouth outbreak in 2001 resulted in a reversal in previously declining bird numbers within the LNR. Based on this experience it was decided to guide people away from Gaddon Loch from March to June. This is done by putting gates over the two bridges which provide access to Gaddon Loch and a sign informing people why they are requested not to use the area. This approach has largely been successful.

2.9.4 Targets and monitoring

A vehicle counter is in place in the car park and a people counter may be installed in the future. A visitor survey is carried out once in the management plan period. General plant, grassland, invertebrate, amphibian and mammal surveys are carried out every 2–3 years either by the Rangers or Elmwood College students. WeBS counts are carried out on the lochs and the ranger counts birds once a week. This information feeds into the annual bird report Fife Birds Recorder. Bird ringing also takes place on the reserve of mostly swans and widgeon although there is a shortage of qualified bird ringers.
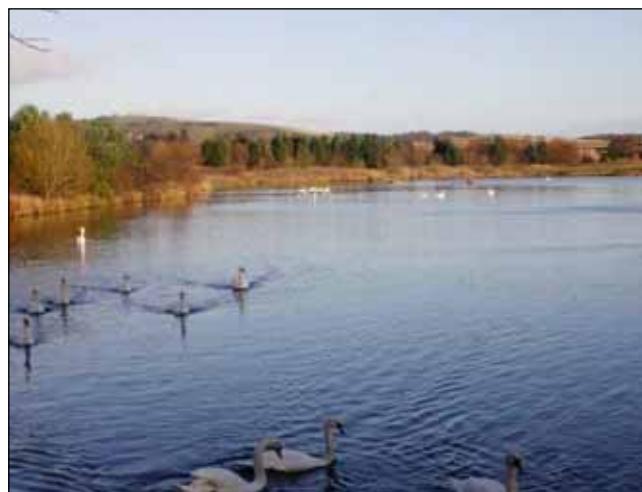
Gaddon Loch LNR, Fife

2.9.5 Educational and volunteer involvement

The site manager notes that the LNR is used by all education sectors for the study of natural history and habitat management. In addition, a local user group highlights the value of the site for general relaxation and informal recreation. Partnership working includes regular input from Community Councils, many regular volunteers and links to community groups and schools and colleges. There are also links to day care centres and the site is used by children and adults with learning disabilities and disabled groups. Many of these groups use the site for its health and exercise benefits and the site is also used by the 'Green Gym'.

Elmwood College use the site for various training purposes including manual training and species id/habitat management. The Ranger service approach Elmwood College if there are specific tasks to be carried out on the LNR which can be undertaken as part of their training. The LNR is also used by local schools and scout groups. Fife Criminal Justice rehabilitation also undertake work on the LNR.

West Fife Volunteers are a large active group who undertake conservation tasks once or twice a year on the LNR. Fife Air Cadets also have a conservation team, lead by a keen leader and have undertaken some projects on the LNR. The two local community councils were involved in tree planting on the site. A centre in Cupar for adults with learning disabilities and a group from the Stratheden hospital, which provides mental health services, visit the site for occupational therapy. The groups have varied skill base but there are always conservation tasks on the site.

Schools visit the LNR both independently and with the Ranger service. It is mostly local primary schools although individuals from secondary schools sometimes undertake school projects on the LNR.

Grassland management is carried out on the reserve and was implemented through the use of the SWT 'flying flock' of sheep which was brought in to graze the wildflower meadow. 2005 has been the first year which the flock has visited due to issues with securing the fencing at the railway. The wildflower meadow contains the LBAP species Maiden Pink and the grazing regime is the easiest way of maintaining the meadow.

2.9.6 Events and publicity

Birnie and Gaddon Lochs LNR is publicised by way of a monthly column in the local paper. This provides press coverage of key events and is important in raising awareness of the site and key issues. The information is also displayed on noticeboards on the reserve providing an update to visitors. The newsletter was originally begun as part of work to raise the profile of the Ranger service in Fife and followed on from a two weekly article provided on Eden Estuary LNR. The newsletter is also displayed on a website run by a local birdwatcher. There are plans to put a camera in the newly created otter holt to record otter activity and to hold an event on the LNR in the summer showing otter footage and displaying local wildlife photographs as the LNR is popular with local wildlife photographers.

There is a site leaflet which is distributed on site and through local tourist offices. The leaflet is due to be rewritten next year in light of land reform. The existing information boards on the site are also to be renewed and will be funded through a combination of SNH and the landfill tax credit scheme. The bird hide and access improvements around Birnie Loch in 2001 were funded through the landfill tax credit scheme and SNH. The local rotary club acted as sponsors for the landfill tax credit funding application.

Disabled accessible path around Birnie Loch LNR

2.9.7 Access

Access to the surrounding areas is good, with car parking facilities provided. A network of footpaths are publicised via a site leaflet guide, and these are strimmed regularly to manage pedestrian access on site. There is a tension between public access and the desire to provide an undisturbed site as possible. Unless public access is managed and not allowed to exceed disruptive levels then the site will lose some of its value as a nature reserve.

It is planned to link the site up with the core path network. The Fife Coastal Path is planned to be extended to Newburgh and a further link developed across the centre of Fife which will pass through the LNR. The proposed route would enter at the railway line to the north of Gaddon Loch. This will provide an important link to Collessie to the north and to the network of paths in Ladybank Woods to the south.

The path network at Birnie Loch was always intended to be accessible to all and Fife Society for the Blind visit the site. The use of red blaze for the path surface was noted as beneficial in providing a good colour contrast for the partially sighted. Wheelchair users also visit the site, and those who have always visited but are now less able. A local adult day care centre visits the LNR several times a week with their clients.

There is a guided walks programme run by the Ranger service and a couple of these are held at Birnie and Gaddon Lochs LNR. There is a nominal charge for the guided walks.

2.9.8 Chalet development

The planning application for a chalet development on land adjacent to the LNR was refused in the summer and is currently going to appeal. The application was refused on landscape and natural heritage grounds. The site would have no direct access to the LNR however the LNR would be likely to incur an increase in visitors if the development were to go ahead. It was recognised that the LNR status of Birnie and Gaddon Lochs was beneficial in giving weight to the natural heritage status of the site in opposing the application. The Chalet planning application instigated the undertaking of an otter survey on the LNR which confirmed their presence and an artificial holt has been built on Gaddon Loch.

2.9.9 Future plans and resources

Future plans for the LNR include connection to the core path network, grassland management through a grazing project with SWT and the renewal of old interpretation. As with the Eden Estuary LNR Fife Council and SNH cover the staff costs, however there is also capital from various landfill and SNH grants. But, all funding with the exception of that provided by the Council is for capital works only not ongoing maintenance. In addition money will become tighter as Fife Council have to lose 10% from all Council budgets over the next three years. A local user group notes that more prestigious designations and other council priorities seem to make more demands on funding. In order to compensate for this a lot of the work on the site is carried out by volunteers or as unpaid overtime.

2.9.10 Future LNR designation

Sand and gravel extraction is an important land use in this part of Fife. The sand and gravel companies have different approaches to environmental issues. A number of other sites in the vicinity of Birnie and Gaddon Lochs are under planning applications for future development, are currently being quarried, or have ceased quarrying. The quarry companies have an after care plan for five years after extraction has ceased. These detailed after care plans for the sites (as a planning condition) are provided to Fife Council.

Burns Farm Quarry, a short distance south east of Birnie and Gaddon Lochs, is a former sand and gravel working part of which was wet worked and part of which was dry worked. The dry working area has been returned to agriculture and the planning conditions included the development of a small car park and bird hide adjacent to the wet worked area. Fife Council was interested in acquiring the wet worked area of land but this has since been sold to a local farmer and the planning conditions have not been enforced. Fife Council is hoping to get a management agreement on the site.

A couple of miles to the east of Birnie and Gaddon Lochs LNR is Mount Castle Quarry. This is a quarry which has about three further years of working. Part of the site is likely to be developed as a small hotel or as light industrial units. There is also the potential for the development of fishing ponds and boating. There has always been pressure for fishing and boating activity in the local area and the development of the Mount Castle quarry site would be suitable for accommodating these uses. The site is of sufficient size to contain a variety of different uses without conflict. The worked out part of the site has already been restored with a path network car park and picnic area in readiness for the closure of the site. The loch has been seeded with plants from the nearby LNR. Although LNR designation would be desirable, it the Council does not own the site and the current owner is unlikely to support designation. Fife Council Ranger Service will hope to get a management agreement or access to the site for monitoring biodiversity.

2.9.11 SWOT analysis

The following table sets out a SWOT analysis for Birnie and Gaddon Lochs LNR.

Strengths	Weaknesses
Use by Green Gym	Lack of funding and staff time
Restoration of a former minerals site	
Regular newsletter	
Disabled access	
Monitoring of species, habitats and visitors	
Popular and accessible site	
Management of visitor access during breeding bird season on Gaddon Loch	
Opportunities	**Threats**
Social inclusion	Anti-social behaviour
Otter camera	Lack of funding
Connection to the core path network and local path networks	Chalet development proposal on adjacent land

2.10   Added value of LNRs

Jamieson (1995) noted that site protection was the most common reason for LNR designation. However it was also highlighted that in recent years this primary objective has extended to include better habitat management, environmental education and the involvement of the local community. In particular, Aberdeen City Council sites, such as the Den of Maidencraig, Donmouth and Scotstown Moor were designated due to their potential community benefits, including proximity to local schools and communities.

The following overall values were specifically attributed to LNRs:

- **local authority officers** considered that the principal reasons for LNR designation included desire on the part of communities for an LNR, opportunities for improved site management, environmental education and nature conservation relating to important species. The key benefits identified by local authority officers were increased public awareness, education and research and partnership working. The second most important group of benefits included improvement of environmental management, community pride and protection of the site against development or other pressure. The role of LNR designation in unlocking resources was judged to be a minor benefit.

- **LNR users** indicated that the key benefits include general relaxation and informal recreation particularly on smaller sites. All sites were highlighted as providing opportunities for wildlife watching whilst a number of LNRs were recognised for their educational benefits.

- **site managers** pointed to a range of benefits associated with LNR designation including the ability to unlock resources, protect areas and raise awareness of nature conservation. They indicated that there were lesser benefits in terms of employment and social inclusion.

In evaluating LNRs it is important to establish their specific benefits, in order to understand **the added value they provide is in relation to other sites** such as country parks. Jamieson (1995) highlighted that LNRs were often secondary to other designations in terms of fulfilling natural heritage designations. Questionnaire responses also noted that SSSIs and SINCs, for example, were sufficient for the conservation of the natural environment and that other initiatives such as River Valley Projects, Community Woodlands and Green Belt projects provided sufficient scope for community involvement.

As noted previously, one SNH Area Officer commented that LNRs are unique in combining nature conservation and community based objectives. However, some policy officers considered that other types of sites deliver the same types of benefit as LNRs. These included three country parks in North Lanarkshire and a number of countryside sites around Aberdeen City. Some sites have been designated as country parks where there is a high level of recreational activity and a consequential need for intensive management. Both East Ayrshire and East Renfrewshire policy officers considered that Country Parks provide the same benefits as LNRs, particularly in terms of wider community benefits and educational opportunities.

In some cases it was considered that sites did not benefit from sufficient community or local interest to justify LNR designation. The nature conservation importance of such sites was therefore reflected in designation as SINCs. In East Renfrewshire, and probably elsewhere, it was considered impractical to bring a large number of SINCs forwards as LNRs.' Some of these views were reflected in comments from SNH Area Officers. While one suggested that country parks can provide similar benefits to LNRs, particularly for those living nearby, others noted that community involvement in country parks is not usual. Similarly, SINCs were highlighted by one respondent as providing similar benefits to LNRs, though others felt that the nature conservation interest on such sites tended to be more specialised and community involvement and access rather limited.

One SNH respondent considered that the difficulties associated with ongoing management of LNRs meant that '… *there is no advantage … in designating LNRs. As matters stand they would be a drain on LA resources with no corresponding benefit.*' Furthermore, the community benefits of LNRs in rural areas are judged to be more limited, due to the availability of a higher quality environment in surrounding areas.

Several user group respondents indicated that they use other sites in a similar way to LNRs. Such sites include community woodlands, Forestry Commission Scotland land, National Nature Reserves and RSPB sites. Organisations including RSPB, WWT, SWT and NTS, together with a number of local groups were noted as managing sites which provided benefits similar to those associated with LNRs.

2.10.1 Procedural issues

Research carried out by Jamieson in 1995 states that six LNRs use **byelaws** to regulate the use of the reserve. This is particularly significant where there are conflicting interests on site such as Aberlady Bay where byelaws are employed to minimise parking impacts. Byelaws are also used to exclude dogs from the LNR during the main breeding season and require that they are kept on a lead at other times. However, dogs remain a common problem, raising issues about enforcement and compliance.

At Montrose Basin LNR byelaws are used to control wildfowling, sailing, angling and scientific research. However some questionnaire responses noted that local authorities feel that the use of byelaws is unnecessary. There also appears to be a pattern whereby those sites with management agreements do not use byelaws, with the former providing sufficient protection to the site.

The Waters of Philorth Management Plan notes that byelaws could be used to address recreational pressure, should it continue to grow and cause a further threat to the dune system. However, it also states that if this route was taken, the byelaws would need to be policed and would be 'difficult to implement successfully'.

No information on the role of LNRs in contributing to the **Strategic Environmental Assessment (SEA) process** has been gathered, as SEAs are still at an early stage.

2.11 Conclusion

The current suite of LNRs in Scotland provides the following key benefits:

- LNRs are designated in a variety of locations, covering a good range of habitats and species;

- as time has progressed, there has been a shift from environmental value as the primary driver behind designation, towards a greater emphasis on the wider benefits which LNRs can provide, particularly in terms of community involvement. There remains, however, reluctance on the part of some SNH and policy officers, to take forward sites which currently have relatively limited ecological value;

- environmental management and conservation remain the dominant concern of site managers and other partners. As a result, there are many different approaches to conservation and site management which could be promoted as examples of good or innovative practice, but which may currently be overlooked;

- externalities need to be taken into account when considering the effectiveness of site management. All of the LNRs are experiencing both positive and negative effects from both natural and man made sources. As a result, LNR site management is often seeking to address or maximise these influences;

- few of the LNRs recognise their role as part of a wider network of nature conservation spaces. The added benefits which they might be providing at a strategic level may therefore be being overlooked;

- whilst access to many LNRs is encouraged, there are concerns amongst users and site managers about the impact of recreational and community use on the environment and species which is being protected by the designation. There may be scope to share good practice in access management, given that achieving a balance between these two aims is fundamental to the LNR status;

- although site managers are working well with community and user groups in many cases, there is little evidence to suggest that their designation or management is being steered in any way by the social inclusion agenda, for example by bringing forward sites in areas of deprivation. There were suggestions that added community benefits could only be achieved with the benefit of additional funding;

- policy officers suggest that there are problems with LNRs being brought forward and supported by communities. The extent to which this is due to concerns about LNRs, or simply a low level of awareness amongst the community, remains unclear from the analysis at this stage;

- there are few links between LNRs and the potential economic or employment benefits which they could help to deliver at present;

- although education is a widely accepted aim and benefit, there may be scope for further innovation and action to produce and promote more learning materials relating to existing or forthcoming LNRs;

- there appear to be few connections between LNRs and their role in contributing to wider environmental quality, community regeneration or the development of sustainable settlements. Whilst this might have been achieved in some cases, it is rarely the rationale underlying designation, and often appears to happen indirectly;

- in some cases LNRs appear to have been at least partly brought forward for designation in response to development pressure, as opposed to as a positive tool for conservation and enjoyment or education;

- although LNRs appear in many cases to be providing health benefits, there are few formal initiatives being progressed on them, and a reliance on individual use of the sites to encourage higher levels of physical activity.

Clearly existing LNRs are delivering a good range of benefits at present, with most striking a sustainable balance between providing opportunities for access, education and enjoyment and achieving ongoing environmental conservation and enhancement aims. However there may be scope for LNRs to make better links with a wider range of policy sectors, particularly health, social inclusion, community regeneration and economic development.

The next section takes a closer look at how LNRs in Scotland are planned and managed, in order to identify whether there is a need for further support and guidance in order to achieve existing and new benefits from the sites.

3 HOW ARE LNRs MANAGED AND PLANNED?

3.1 Introduction

Having established the benefits that LNRs are delivering, it is useful to consider in more detail the way in which they are planned and managed. This section of the report therefore reflects on the key findings of the questionnaires in terms of insights into management arrangements and partnership working. It also sets out the key findings arising from a review of LNR management plans, as well as an assessment of LNR related guidance documents, as these provide important planning support.

3.2 Management frameworks

3.2.1 National guidance

Local Nature Reserves in Scotland: A guide to their selection and declaration (SNH, 2000) outlines that the responsibility for selecting, acquiring and making arrangements for the management of LNRs lies with local authorities. This is echoed by both English Nature and the Countryside Council for Wales, however in England the situation is slightly different in that this responsibility can also be delegated to Parish Councils.

In terms of management, SNH recommend that a site management plan is drawn up within three years of declaration, with a subsequent monitoring and review plan. Accompanying this it is noted that a Local Management Group (LMG) may be formed with the parties involved in identifying, evaluating, declaring and managing the LNR. Ideally it is stated that an LMG should be established early on in the process and before the time of formal consultation with SNH.

Key amongst the aims of establishing an LMG is the setting up of management objectives for the site and the preparation and monitoring of a management plan. LMGs can also be involved in the daily running of the site in tasks such as policing for litter and vandalism. An area that is more prominent in England is the setting up of Junior Management Sub-groups where an LNR has close links with schools, ensuring that the ideas of young people are fed into the management process. English Nature encourages all site managers to gain the involvement of the local education authority to ensure that the full potential of the site for education is realised[1].

Under Section 20 of the 1949 Act local authorities have powers to control third party activities through byelaws. In Scotland the making of byelaws is controlled by the Local Government (Scotland) Act 1973. Byelaws have been introduced for many Scottish LNRs in order to regulate the use of the reserve particularly where conflicting uses are present such as at Aberlady Bay where they are used to minimise parking impacts. However it is noted that byelaws do take time and effort to implement and should not be a substitute for good reserve management and planning. *A Place for Nature at your Doorstep: The role of Local Nature Reserves* (CCW, 2003), also outlines that byelaws can be used to protect the interests of a site.

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[1] http://www.english-nature.org.uk/special/lnr/lnr_manage.htm

All guidance stresses the importance of LNRs for community and education benefit and in order to safeguard environmental interests. In Scotland SNH place importance on a management plan as the primary framework. In Wales the CCW emphasises the importance of proactive and not reactive management and in England the focus is on ensuring that management protects the biodiversity interest of the site[1].

3.2.2 Partnership working arrangements

Seven of the 16 site managers stated that LNRs had made a significant contribution to **partnership working** through the establishment of an LNR management group or committee with representation from local councils, user groups, agencies and land owners and managers. However, community representation on these committees was not universal so it is likely that shared ownership and responsibility varies across the suite of LNRs. Designation was only identified as a response to community involvement in the case of two LNRs.

Wigtown Bay LNR is an example of where conflict resolution has been achieved in order to gain a common consensus on the management of the site (SNH, 2001). The site has been popular with wildfowlers for centuries however it is also popular for other activities. In the 1980s there was concern about the quality of the site and the misuse of the site by some wildfowlers. As a result the Council decided to set up a round table for discussion which included the wildfowlers, farmers and landowners and conservation groups such as the RSPB and SWT. The aim was to create a management framework which would ensure a sustainable future for the bay. After three or four years of discussion between the different interest groups, a management regime was agreed including agreement on the need for a wildfowling permit scheme, grazing regime and bird sanctuary zones. This initial roundtable group progressed to become the steering group and is now the Wigtown Bay Advisory Management Committee. In this example dialogue was key to gaining understanding and an overall consensus on the future of the site.

The 2001 LNR Workshop (SNH, 2001) examined the issue of management and outlined that '*the partners involved in designating a site are likely to be different from those who are involved in the ongoing management, although there may be an overlap. The latter is likely to have stronger community representation*'. The review of management plans suggests that in most cases **local authorities are the lead partner** in managing LNRs, but that they tend to involve a wide range of groups within the process, through management committees. For example, in Aberdeen, the City Council Leisure and Learning Department, through the Ranger Service, is the lead partner managing LNRs in the area, as part of a portfolio of 31 sites.

However, the consultation indicated that the lead partner in generating proposals for LNRs tends to vary. In some cases it is the community who have identified the potential for an LNR and the local authority simply responds to this demand. There was a concern that while there could be greater awareness of the SNH/CoSLA guidance, SNH should not be the main organisation promoting the designation of new LNRs. SNH officers considered that this should come from within Local Authorities. In some areas, low political awareness and support for LNRs, and even low awareness amongst policy makers and communities meant that it is very difficult to encourage the creation of additional LNRs.

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[1] http://www.english-nature.org.uk/special/lnr/lnr_manage.htm

3.2.3 Varying approaches to LNR management

As would be expected, stakeholder consultation indicated that **LNR management is linked closely to the characteristics of the site in question**, including its biodiversity interest and its recreational use. In some cases the level of management intervention is comparatively high (for example the Montrose Basin which is zoned to accommodate different types of recreational activity and where a land management scheme has been designed to manage and compensate crop damage associated with overwintering swans). In others, the level of intervention is very much lower. Some examples of innovation in management techniques were identified in the management plans. The Eden Estuary has undertaken a beach nourishment project at Outhead, which has helped to develop a better understanding of the LNR and issues such as sediment movement. At Aberlady Bay work has been done to explore the feasibility of stock grazing to assist with maintaining an area of regionally scarce saltmarsh on the LNR.

3.2.4 Levels of community participation in site management

A number of LNRs have management committees or advisory groups which tend to include a range of local stakeholders. Several place an emphasis on the involvement of local communities and other local interests in preparation of the LNR management plan. This was confirmed in the responses from site managers and user groups.

The management plan review confirmed that in Aberdeenshire, local communities are actively involved in management work within the LNRs:

- the Management Plan for the Donmouth LNR notes that local site users and representatives of community organisations participate in the committee which manages the site. This includes representatives from an angling association, land owners, national environmental organisations, a school and a community council. Membership of the committee is open to interested groups and individuals and the LNR management has sought to involve a good cross section of interests in the process;

- at Den of Maidencraig, the committee includes representatives of the community and four schools (3 primary and 1 secondary). As with Donmouth, participation in the committee is encouraged and open to interest groups and individuals. However, recent years has seen a fall in attendance at committee meetings and 'little involvement of the local community of the development of the site' according to the management plan. As a result, stimulating further involvement is a key priority for further planning;

  - the management of Kincorth Hill included a volunteer management committee, made up of the councillor, community council, local schools, community groups and interested individuals. This is maintained as a separate group to the advisory committee, which comprises officers of ACC, SNH, SEPA, SWT and RSPB. This provides an interesting dual approach, although it is expected that in practice the two groups work together closely.

There appears to be some **variation in local political awareness and commitment to LNRs**. Even where there appears to be a relatively high political awareness of and support for LNRs, this does not always get translated into the creation or active management of sites. This is particularly the case in more urban areas local authority areas, and those without LNRs. In other areas, particularly in more remote and rural areas LNRs may be less clearly supported politically or within the policy framework. This appears to influence the efforts of other agencies and stakeholders, with, for example, SNH staff indicating that they would be

unlikely to spend time supporting the creation of new LNRs where political commitment is lacking. One respondent stated that there is a lack of 'practical or financial support from SNH' and another that there was '*no policy within the council*' for new designations.

3.3   Review of LNR management plans

The study included a review of existing management plans for LNRs. Plans were gathered as part of the survey process. In all 11 management plans were received and reviewed as a result of the contact with site managers and other officers with an interest in LNRs. These covered:

- Aberlady Bay;

- Birnie and Gaddon Lochs;

- Castle and Hightae Lochs;

- Den of Maidencraig;

- Donmouth;

- Eden Estuary;

- Kincorth Hill;

- Loch Stiapabhat;

- Scotstown Moor;

- Straiton Pond;

- Waters of Philorth.

This reflects the fact that many LNRs do not have up to date or comprehensive management plans, and that the level of detail provided in documentation of this type varies considerably between LNRs. Some of the plans received were at the 'draft' stage of adoption.

3.3.1 SNH guidance on LNR management plans

The Guidance on LNRs in Scotland (2000) provides little or no information on Management Plans for LNRs, although this had been identified as an information need by David Jamieson in 1995. However, SNH produced a short guidance note in 2003 which explains more about LNR Management Planning. It notes that management plans can assist with the management of the site, bring together partners and address potential conflicting interests, attract and balance the use of resources, and promote and raise awareness of the LNR. It also explains that the process of preparing the plan can be of as much value as the plan itself.

The guidance suggested that the following is included in the plan:

- site description;

- objectives;

- methods;

- prioritised and costed work programme;

- monitoring and review.

The guidance states that plans should be prepared on the basis of research, consultation and consideration of responsibilities and resources. It also notes that it is important that an evaluation based approach is taken to ensure that the different aims of the LNR are understood and well balanced.

3.3.2 Current practice – review of available management plans

3.3.2.1 Aberdeenshire

The three Management Plans for LNRs written for sites in Aberdeenshire were developed between July 2002 and August 2003. The plans were developed for the following sites:

- Scotstown Moor LNR, July 2002;

- Donmouth LNR, January 2003; and

- Waters of Philorth LNR, August 2003.

Although the sites are very different, the management plans have been written with the same structure. Each plan has three distinct sections: Description; Evaluation; and Operational Objectives, broadly in line with the SNH 2003 guidance. They are each due for review in 2006.

The first section in each of the plans provides a detailed description of the physical and natural environment of the site. This section also includes a description of the cultural associations of each site, in particular how it is used and what educational value it adds to the area.

The second section of the management plans is an evaluation of the site. This section includes analysis of the factors influencing management, current obligations and management constraints.

The third section of the management plans contains management objectives for each LNR. These include general objectives for the future management of the site and specific objectives which have prescriptions, potential personnel/partner involvement, timescale and prioritisation. These general and specific objectives provide the key element of the documents because they provide a framework for the future management of each area.

3.3.2.2 Aberdeen City

The management plans for the two LNRs in Aberdeen City, Den of Maidencraig LNR and Kincorth Hill LNR, were developed by the Aberdeen City Council Ranger Service in 2003. Each of the plans will be reviewed after five years.

They have a similar structure to the Aberdeenshire LNR management plans, again broadly following the SNH 2003 guidance. The main sections are: Description; Evaluation; and Objectives. These core elements provide a detailed description of the existing situation in each of the sites and outline proposals for future development.

3.3.2.3 Dumfries and Galloway

The Castle Loch LNR Management Plan (1995) gives a good 'flavour' of the character of the site and its natural heritage importance. It also sets out its recreational role, and outlines the role of the Nature Reserve Advisory Committee. It includes general information on the site, including land tenure, and describes its conservation status. It defines 'operations likely to damage the special interest' and on that basis, in combination with other factors and influences, defines the management aims for the site. These aims are taken forward through operational objectives.

3.3.2.4 East Lothian

East Lothian Council has prepared an LNR management Plan for Aberlady Bay for the 2002–2006 period. The plan commences with an Evaluation which takes into account the natural heritage features and sensitivities of the LNR, together with its broad management arrangements and objectives. It then sets out the overall aspiration for the LNR and a series of objectives. It also clearly defines reserve policy including for access and recreation management as these are key issues within the site management process. It also sets out the role of the Reserve Warden and provides Detailed Prescriptions including for habitat restoration.

3.3.2.5 Fife

The Birnie/Gaddon Lochs LNR Management Plan has the same structure as the Management Plans developed for Aberdeenshire and Aberdeen City: Description; Evaluation; and Objectives. This structure provides a large amount of information about the site and sets out a detailed set of operational objectives and projects.

3.3.2.6 Midlothian

Straiton Pond has a number of documents which together provide a 'management plan' for the LNR. One key document was prepared some time ago by a student who was working via the Lothian Urban Wildlife Group. This is a very detailed document, which possibly goes further than the guidance recommends, providing a slightly inflexible tool, but also a valuable source of information. A report prepared for Midlothian Council's Community Services Department by FWAG identified the key management aims for the site, alongside similar objectives for several other countryside sites within the area. This confirms key objectives and identifies issues for site management to take into account, but could not be regarded as a full management plan in its own right.

3.3.2.7 North Lanarkshire

It is understood that the management plan for Dumbreck Marsh is more than 10 years old and not in active use. Instead, the case study identified that the project has focused on delivering the aims set out in relation to the Arts project. The Ranger Service has also recently introduced an annual stewardship report which provides a more reflective approach and allows for management to be more explicitly planned and prioritised.

3.3.2.8 Western Isles

The Management Plan for Loch Stiapabhat LNR on Lewis is considerably more concise than the other Management Plans reviewed. It is structured to provide precise objectives and prescriptions for habitats and

features. It does not have the description and evaluation sections that are found in the other Management Plans reviewed. The Plan sets out very clear objectives along with the personnel implications, cost estimates, funding sources and level of priority.

3.3.3 Conclusions on management plans

Other than the Management Plan for Loch Stiapabhat LNR, the plans reviewed had a very similar structure and appearance. They combine the three main elements of Description, Evaluation and Objectives to form a detailed document which sets out clearly the current situation at each site and the objectives for its future development and management. They provide a clear and implementation-focused document which is likely to assist LNR managers on a day to day basis.

It could be argued that the management plans could go much further in providing active management guidance for LNRs. Many of the benefits identified in Chapter 2 were not directly referred to in the management plans, even where they were being delivered. As a result, it is difficult to envisage any of the management plans being used to access resources, beyond those which are available to support the environmental components of LNRs.

These concerns about existing management plans can also be extended to those LNRs where there is either not an up to date plan available, or where the plan is so unwieldy that the site managers were unable to forward it for review as part of this study. On the basis of the questionnaire findings we estimate that the majority of LNRs in Scotland do not currently have an up to date management plan. In light of the level of coverage of the plans, and their generally limited content, it is perhaps unsurprising therefore, that they appear to lack recognition, and are missing opportunities to connect with a broader range of policy aims, including health, social inclusion and community regeneration. Scope for achieving this through more proactive management planning should be considered further.

3.4   Case study: Castle and Hightae Lochs

3.4.1 Site description

3.4.1.1 Background to the site

Castle and Hightae Loch LNR is the only case study to be under private ownership, and managed by the local authority. The LNR covers the Castle Loch and Hightae Loch and was designated in 1961 because of their importance for wildfowl. The waters were also home to the Lochmaben Vendace (one of the UK's rarest freshwater fish). Together the sites cover 137ha.

Castle Loch is owned by one landowner and Hightae Loch is split between three different landowners. A management agreement was in place in the past but has since lapsed but it is hoped to get a new management agreement to support the HLF bid. Within certain parts of the site there is a lack of clarity of the detail of the landownership. This is particularly the case around Loch Maben Castle where the entrance track is also the farm access and ownership of the track is unclear.

Castle Loch is an internationally important roost site for wintering Pink-footed Geese and it is nationally important for wintering Greylag Geese and Goosander. Castle Loch is designated a Site of Special Scientific Interest, a Ramsar Site and Special Protection Area. Both lochs are also important for a range of wintering wildfowl and for breeding birds (breeding waterfowl include about six pairs of Great Crested Grebe and four pairs of Mute Swans; breeding passerines include at least 6 pairs each of Reed Bunting, Reed Warbler and Willow Tit). Key habitats include standing open water (eutrophic); fen, carr, marsh, swamp and reedbed and native woodland. There are four fishing piers and a bird hide at Castle Loch.

Hightae Loch is not a SSSI, but the west side has locally significant Scotch Argus and Small Pearl-bordered Fritillary colonies, as well as other Lepidoptera. The east side is merely wet woodland dominated by Sitka Spruce and birch. Vendace are no longer found in any of the Lochmaben lochs. There is both a wildfowling permit scheme and a fishing permit scheme administered on the lochs.

Hightae Loch lies to the west and south of Castle Loch and is difficult to access. There is only room for one vehicle to pull off the road at the entrance to the site and visibility to the road is poor. The site is not signed and access is down a small path marked 'Private'. The only visitors to the LNR are birdwatchers and fishermen. There is a coniferous wood adjacent to the loch which is proposed to be thinned as part of the HLF bid. The path to the waters edge is very wet and a fishing pier and boathouse lie at the waters edge. There is some amount of fishermen's rubbish scattered around the boathouse. The loch can also be accessed from the west but there is no path around the loch.

Changes in breeding and wintering bird species are largely affected by much wider influences not associated with the LNR status, eg winter goose numbers affected more by breeding season in the Arctic and UK farming practices, and recent colonisation by Reed Warblers perhaps linked to climate change. The loss of the Scotch Argus butterfly (pre 1986) from east side of Castle Loch may be attributable to inappropriate or inadequate grazing that has led to dominance of rushes.

Local user groups predominantly use the reserve for general relaxation, wildlife watching and informal recreation. The LNR attracts visitors from a wide area, including those who visit other sites and reserves within the area. It is also easily accessible from the M74.

Entrance to Hightae Loch LNR, Dumfries and Galloway

3.4.2 Key issues

Problems include litter left behind by fishermen and fires and camping as well as fly tipping and litter where main roads border the reserve. There is also a lack of woodland management.

3.4.3 Management

As with Castle Loch the management agreement on Hightae Loch has lapsed as it was not seen as worthwhile by the landowner. One of the landowners adjacent to Hightae Loch has undertaken some habitat management with advice from the Wildfowl and Wetland Trust. There are no major issues with the landowners adjacent to the loch as the land is quite wet and prone to flooding so not intensively managed.

The Advisory Management Committee was established when the LNR was designated mainly to deal with the issues associated with wildfowling on the loch. The LNR Advisory Management Committee has representatives from wildfowlers, sailing club, water bailiffs, Community Council, local birdwatchers, Historic Scotland, SEPA, RSPB and the principal landowner.

The main benefit of the site is partnership working as the LNR Advisory Management Committee has representatives from a wide variety of groups including wildfowlers, the sailing club, Community Council, local birdwatchers, Historic Scotland and the RSPB. Local user groups with an interest in the site include the Castle Loch Sub-Committee, those involved with the Lochmaben Initiative and the History of Lochmaben organisation.

The committee is important in providing a forum for concerns surrounding the loch to be raised, although it is mainly the community councils who attend the meetings rather than individuals. There is some local resentment against the landowner surrounding the requirement for fishing permits. The Advisory Management Committee meet twice a year and the landowner attends these meetings. Dumfries and Galloway ranger service attend these meetings to observe but are not on the committee. Rangers reports are produced from the committee meetings and wildlife reports on the findings of the wetland bird survey (bird counts are undertaken once a month) are also produced.

The Dumfries and Galloway ranger service is currently one ranger short. The ranger responsible for Castle and Hightae Lochs is also responsible for the Southern Upland Way and spends less than 40% of his time on the LNR sites. The sites are visited at least once a month for the wetland bird surveys.

The Castle Loch management plan is about 10 years old and is to be updated by March 2006. The management plan is not important in the management of the LNR as the landowner did not want change on the site from the 'status quo'.

There are some issues of conflict between the sailors and fishermen, however these are not significant. The proposals to extend the path network to the west of the loch were not taken forward due to the issues of disturbance to wildlife. The issue of litter and fires around the edge of the loch caused by fishermen is dealt with by the two water bailiffs who are very important in policing the LNR.

Wildfowl shooting takes place on a Wildfowling permit scheme (restricted to residents of the Burgh of Lochmaben) and only two permits were issued for 2005/06 season. However this still means that the waterfowl are disturbed by the shooting activities. In the past there have been up to 10 permits issued. However the adjacent landowner at the 'Sanctuary' area of the loch where wildfowl shooting is not allowed, leases shooting on his land which causes disturbance to this area. There is also a fishing permit scheme administered and monitored by water bailiffs (who lease the two lochs from Halleaths Estate).

3.4.4 Targets and monitoring

The main monitoring which takes place on the LNR is the WeBS counts.

3.4.5 Educational and volunteer involvement

Involvement of local schools has not been developed significantly however if there was another ranger this could be further developed. In the past the local school were involved in putting in a path to the bird hide and designing the sign in the hide.

3.4.6 Events and publicity

There is no visitor data collected on the LNR. There are about four guided walks a year, one of which is part of the Dumfries and Galloway wildlife festival. The numbers in attendance are generally less than 10 and it tends to be the same people who come on the walks each time, therefore they are of limited importance in stimulating new visitor interest in the LNR. The walks are publicised in the Ranger led walks booklet and on the council website.

3.4.7 Access

It is possible to do a circular walk around the site however there is no path to the north of the loch and use of a lane or the main road is required to complete the circuit. The local people tend to use the area of the LNR close to the village, where it is possible to do a small circular loop. In addition there is a good path network close to the village.

3.4.8 HLF bid

The current HLF bid was initiated through the Solworth Connections landscape project which is undertaking a number of projects connected with the Solway. The ranger service were approached through this project and asked what they would like to do on the LNR and to submit the HLF bid. It is hoped to replace all of the fishing piers (four in total) with floating platforms on Castle Loch through the HLF bid.

There are proposals to create two wetland areas to the east of Castle Loch to provide areas of exposed mud for migratory waders. There is currently no control over water levels in the Loch and when the water levels are too high there is a risk migratory waders will pass over the site. The woodland management at Hightae Loch would also be funded through the Heritage Lottery Fund bid for £50,000.

Disabled fishing pier, Castle Loch LNR, Dumfries and Galloway

Lochmaben Castle, Castle Loch LNR, Dumfries and Galloway

3.4.9 Heritage

Lochmaben Castle lies on the western shore of Castle Loch and is owned by Historic Scotland. The remaining walls are enclosed within a fence and repair work on the walls has been ongoing for a number of years. What remains of the walls is mainly the rubble core, as the dressed stone has all been removed from the site. There are proposals from Historic Scotland as part of the HLF bid to clear the surrounding vegetation to expose the adjacent earthworks, and move the existing car park closer to the road. It was acknowledged that the poor quality of the entrance track was a deterrent to visitors, combined with the limited interest of the castle remains. In the past Historic Scotland has not been closely involved in the AMC meetings.

3.4.10 Future plans and resources

Plans include environmental work to carry out woodland management, to graze the open areas more effectively, provide shallow ponds to attract more wildlife and replace existing fishing piers with floating platforms. This is dependent upon a Heritage Lottery Fund bid for £50,000.

Future plans for the development of the LNR include implementing the HLF bid works if successful. If there was an additional ranger more time could be spent on the site and it could be further developed. Locals have a low awareness of the LNR status of the Lochs. Future proposals for Hightae Loch could include grazing management to maintain the botanical interest on the western side of the loch and prevent willow encroachment. There was a proposal to erect a bird hide but the landowner was not in agreement. The development of a car park is not feasible due to the limited visibility on the road.

A wide variety of funding has been secured for the Castle and Hightae Loch's LNR. These include minor works being supported by Dumfries and Galloway council and funding from the Lochmaben Common Good Fund for fishing pier repairs.

Funding for the LNR has been through the Council and SNH, and Castle Loch attracts funding through its designations as a SSSI and SAC. Funding for LNR associated works has also been accessed through the Lochmaben Initiative. This included updating and publishing the leaflet.

Castle Loch has a bird hide which was constructed about eight years ago through funding from SNH and Dumfries and Galloway Council. There are also boardwalks to the bird hide and to the adjacent path. The council access team carry out work on paths if requested. The only other work groups on the LNR are SWT in Castle Douglas who come to the site if approached by the Ranger to carry out work. The second disabled access pier on the west side of Castle Loch was paid for by the Lochmaben common good fund. This includes a lay-by for parking picnic table, bench and noticeboard.

3.4.11 Future LNR designation

There are inconsistencies in site designation in the surrounding area. There are two other lochs in Lochmaben. Kirk Loch was previously a SSSI and was denotified, however it attracts many more birds than Castle and Hightae Lochs. Mill Loch has been invaded by the alien species Fringed water lily and SNH are working with the Ranger service to spray the lily to try and control its spread. The ranger carries out bird counts on Mill Loch. There is free fishing on the loch and a number of different land owners bound the edge, including a number of private gardens. There are some problems with litter and there is a danger that the fringed water lily could spread to Castle Loch as the two are connected.

Kirk Loch is more popular with local people and at its edge is a council owned car park and caravan site, with private gardens down one side, grazing and a golf course. Some fishing takes place and there is a path down one side. The Loch is in council ownership and following the denotification of the SSSI the golf course extended round the loch. The ranger counts birds on the site once a month and the Loch is linked to Hightae Loch.

There is a perception of a lack of support from SNH on designating new LNRs, and it is a time consuming process (Wigtown Bay took 20 years due to landowner issues). However it was noted that if Castle and Hightae Loch did not have LNR status then they would not have a ranger presence.

Information panel Castle Loch LNR, Dumfries and Galloway

3.4.12 SWOT analysis

The following table sets out a SWOT analysis for Castle and Hightae Lochs LNR.

Strengths	Weaknesses
Internationally and nationally important site Development of wetlands LNR Management Advisory Committee Guided walks Mediation between user groups Web page under development "Ospreys are Back in Galloway" and as this is a great visitor attraction 2 Seasonal Wildlife Attendants have been employed for this, also raises profile of LNR	Future environmental work dependent on securing HLF funding
Opportunities	**Threats**
Continued enhancement of visitor experience Increased school visits	Conflicts between user groups

3.5 Review of development plans

3.5.1 National policy and guidance

LNRs can also be supported within development plans. These can provide an invaluable insight into the way in which LNRs are perceived, and the added value which is more generally attached to them. In particular, inclusion of LNRs in development plans could, to some extent, be expected as a result of their statutory status and role in protecting areas from development. This status gives added weight to LNRs, as compared to alternative designations such as SINCs. The fact that LNRs are included within some development plans means that planners do, to varying extents, recognise their role in relation to LNRs, in addition to the more specialist interest of staff involved in biodiversity issues.

NPPG14 notes in paragraph 61 that LNRs have '*established and potentially valuable roles in protecting local natural heritage interests*'. The paragraph also states that '*… planning authorities should avoid the unnecessary proliferation of local designations. Where they are considered necessary, authorities should take account of the economic interests and aspirations of local communities and should ensure that designation does not impose unreasonable restrictions on the ability of people to work or develop their land*'.

Although NPPG14 does note the potential importance of LNRs for nature conservation, it does not positively promote their benefits, particularly in relation to community involvement and positive management.

The relevant national guidance for open space comes from NPPG11: Sport, Physical Recreation and Open Space (1996). The guidance makes only one reference to Local Nature Reserves in paragraph 66. It states that '*Through the strategic provision of managed facilities or alternative locations it may be possible to reduce visitor pressure on the most sensitive environments and on agricultural businesses. There are therefore benefits in providing and enhancing countryside facilities including Regional and Country Parks, Local Nature Reserves, interpretive centres, picnic areas, car-parks, canals, footpaths, cycleways and bridleways*'.

The more recent PAN65: Planning and Open Space (2003) contains a wide range of advice on the planning and development potential for open spaces. However, it makes no mention of LNRs despite their increasing numbers and the frequency that they are located in urban/urban fringe locations.

3.5.2 Structure and local plans

The protection afforded to LNRs in development plans is overwhelmingly delivered through policies relating to 'natural heritage' or the 'environment'. This stems from the guidance contained in NPPG14: Natural Heritage (1999). Generally the protection given is as part of a hierarchy of designated sites ranging from international to local.

Approaches to LNR designations within strategic level structure plans vary. Many of the plans refer to the LNR status when noting where development should be avoided or more stringently assessed in relation to nature conservation criteria:

- the Aberdeen and Aberdeenshire Structure Plan notes that development should not have adverse effects on a range of designated areas, including LNRs;

- similarly, the Dundee and Angus Structure Plan notes that development which could have an adverse effect on all natural heritage designations will only be allowed where it can be demonstrated that the economic and social benefits outweigh the environmental costs. Similar approaches to this are taken in the Argyll and Bute Structure Plan, Edinburgh and Lothians Structure Plan, Dumfries and Galloway Structure Plan;

- in Clackmannanshire and Fife, the plans propose that development may be permitted where a net benefit to nature conservation can be demonstrated as a result of habitat creation or enhancement;

- the Glasgow and Clyde Valley Structure Plan notes that protection of such sites should also extend to the wider natural heritage.

LNRs are not regarded or protected as specifically 'open spaces' or 'recreational resources' in any of the Structure Plans reviewed – instead, they are primarily referred to and protected as natural heritage resources. This may be because few of the Structure Plans actually contain policies specifically relating to open space. Those that do, such as Clackmannanshire & Stirling and Dumfries & Galloway, focus their open space policies on sport and recreational facilities, making no mention of LNRs in terms of greenspace networks or levels of open space provision.

At a local level, most of the policies reinforce strategic commitments, and set out criteria against which development which would affect designated sites will be assessed.

Some local plans, such as the Argyll and Bute Local Plan do not specifically refer to LNRs.

Specific references to LNRs include the proposal within the East Dunbartonshire Local Plan to take the Merklands Nature Park forward to designation. The East Lothian Local Plan refers to Aberlady Bay and notes that more recently this has been supplemented by the identification of local sites of biodiversity interest by SWT. North Lanarkshire's Local Plans also specifically refer to existing and potential LNRS. The Orkney Local Plan also makes specific site references.

The Fife Structure Plan previously included a policy commitment to creation of LNRs, but this is no longer the case.

3.5.3 LNRs and other designated natural heritage sites within development plans

Alternative types of designation are also noted within the structure plans:

- in Moray, the area inherited 42 Sites of Interest to Natural Science (SINS), and the Council is continuing to identify further sites to be awarded this non statutory status. The same level of protection is given to LNRs as SINS within the Moray Development Plan. Nature Reserves are also mentioned within the plan;

- The Edinburgh and the Lothians Structure Plan notes other important sites including country parks, core and local path networks and 'areas of significant open space within urban areas'. Local Plan references include Urban Wildlife Sites and Regionally Important Geological Site (RIGS) sites which are also protected from development within the West Edinburgh Local Plan;

- Clackmannanshire has Listed Wildlife Sites;

- in Dumfries and Galloway alternatives include Nature Conservation Sites of Local Importance;

- Dundee and several other local plans (eg East Dunbartonshire) refer to the commonly used Site of Importance for Nature Conservation (SINCs) as well as the more locally specific Community Wildlife Sites and Wildlife Corridors;

- East Dunbartonshire also refers to Important Wildlife Corridors (IWCs) and Village Nature Parks;

- in North Ayrshire, like in Moray, the Council inherited a pre-existing designation from the Irvine Development Corporation – Natural Heritage Sites. The local plan for the area also makes reference to Listed Wildlife Sites and SINCs;

- in South Lanarkshire the East Kilbride and Districts Local Plan refers to the 95 key sites within the area which are SINCs.

This suggests that there appears to be no clear special identity attached to LNRs, with them being viewed as interchangeable with other, quite different, designations within local plans. Although SINCs and other local designations may be included within proposals maps, they do not carry the same weight as LNRs, but this remains unclear in most of the plans reviewed.

This contrasts with the situation in England, where it appears that LNRs have a more developed 'image' which is recognised by a range of different interests. A paper by English Nature (Berry, 2005) notes that in England and Wales *"LNRs now have their own separate identity, as places where substantial numbers of people can conveniently and safely come into contact with nature."*

This partial coverage of LNRs within development plans, possibly supports the muted support which NPPG14 and NPPG11 currently provide on the matter. There appears to be confusion about the meaning of the LNR designation and the different level of statutory 'weight' which they have when compared with other sites such as SINCs. The policy officer questionnaire responses confirmed this, with several officers suggesting that SINCs can achieve the same goals as LNRs, without requiring as much investment, as reiterated at the LNR Focus Group (see Appendix 4). The lack of recognition of the wider role of LNRs within plans, including their dual emphasis on recreation and conservation and the statutory protection they provide, also supports the conclusion that there is insufficient awareness of them amongst development planners.

3.5.4 Conclusions on LNRs within development plans

As a result, quite a confusing picture emerges of the relationship between LNRs and the range of other common and more locally specific nature conservation sites which is referred to in local plans.

The development plan analysis has shown that LNRs are protected as natural heritage or environmental resources rather than as 'open spaces' (although their protection is usually implicit through greenspace/ greenbelt type policies). This protection stems from national guidance which provides protection for LNRs but does not encourage their development or promote their benefits.

3.6   LNRs and LBAPs

Most Scottish local authorities have prepared or are preparing Local Biodiversity Action Plans (LBAPs). The aim of these plans is to secure and enhance biodiversity objectives.

The UK Biodiversity Action plan (UKBAP) recognises the importance of safeguarding not only rare species and habitats, but also more common, locally valued ones. Therefore the establishment and management of LNRs can be an important part of any LBAP. For this reason, Objective 16 of the UKBAP specifically highlights encouraging LNRs – "*Encourage local … authorities to make reasonable provision for LNRs in local plans …*".

As a result of only partial availability of the LBAP documents at the time of the review, the following LBAPs were included in the analysis:

- Argyll & Bute LBAP;

- Clackmannanshire Biodiversity Action Plan;

- Edinburgh LBAP;

- Falkirk LBAP;

- Fife LBAP;

- Inverclyde, Renfrewshire and East Renfrewshire Joint LBAP;

- North East Scotland LBAP;

- North Lanarkshire LBAP;

- Orkney LBAP;

- Scottish Borders LBAP;

- Sutherland LBAP;

- Tayside LBAP;

- Wester Ross LBAP;

- West Lothian LBAP;

Whilst LBAPs have been encouraged to bear in mind LNRs for strategic biodiversity objectives, six LBAPs which were included in the review make no reference at all to them. These include Fife, Argyll & Bute, Sutherland, Falkirk, Wester Ross and Scottish Borders. Of these, only Fife and Argyll and Bute currently have LNRs, however, this suggests that current LNRs or their future designation is not perceived to have a significant role to play within LBAP strategies for the majority of Scottish local authorities.

The Clackmannanshire and Tayside LBAPs, refer to LNRs. However, the details attached to LNRs are limited, primarily comprising the identification of LNR sites that exist on habitat priorities. The role the sites play in contributing to biodiversity objectives is not mentioned. Additionally, the Tayside LBAP states management agreements and prescriptions are in operation for LNRs. The only reference made to LNRs in the North Lanarkshire LBAP relates to actions the council have carried out on its LNR sites. This again reflects the low level of importance attached to LNRs in many LBAPs.

However, in a number of more recent LBAPs, the weight attached to LNRs appears to be rising. This is reflected in the growing number of LBAPs that have identified targets for future LNR designations. The Orkney LBAP states that '*consideration should be given to the designation of further LNRs to achieve appropriate areas of "prime biodiversity*'. Inverclyde, Renfrewshire and East Renfrewshire Joint LBAP '*declare to promote LNRs to improve management of green spaces in urban areas*'. West Lothian aim to declare one new LNR at a key habitat site. However, the most ambitious is Edinburgh LBAP, which aims to '*increase the number of LNRs so that the national target of 1000 people per hectare of LNR is attained*'. This is a considerable undertaking to pledge when it is considered that the current level stands at only 1ha per 3300 people (City of Edinburgh Council). This identifies that there are examples of greater recognition by local authorities of the role that LNRs can provide in securing and enhancing biodiversity objectives.

In one LBAP, however, a significantly greater amount of detail and importance has been attached to LNRs. In the North East Scotland LBAP, not only are LNR sites identified in relation to habitat priorities, but management objectives, such as increasing the involvement of local people on LNR sites in maintaining and enhancing biodiversity, are given. The North East Scotland LBAP also recommended sites, pending the consent of owners and occupiers, for future LNR designation. Detailed information is also provided about individual LNR sites, such as Findhorn Bay, outlining how the LNR designation came about and who is involved. Perhaps most surprisingly of all, however, is that the LBAP includes a specific action plan for Kincorth Hill LNR - identifying information on current action on the site, biodiversity objectives and proposed targets, and the action required to meet targets, including who is responsible for carrying out the action, the cost, the funding sources to be used, and the level of priority to be attached to the various projects.

3.7   Conclusions on LNR management and planning

The review of the way in which LNRs are managed and planned provides a potential insight into their collective strengths and weaknesses. At the site specific level, there are clear examples of major environmental and education benefits being carefully planned for. This reflects the likely interests and priorities of the site managers themselves in many cases.

However, site management plans currently appear to be contributing relatively little to the LNR management and planning process. We identified numerous examples of where the site management plans focus on specific environmental issues, and do not reflect or actively promote the wider role of LNRs. In many cases,

this is because the management plans are not kept up to date, and it appears that several LNRs are run on a more informal basis, with managers responding to issues and opportunities on the site as they arise.

We would suggest that good management plans could help LNRs to become much more effective, and that this in turn could stimulate additional sites coming forward. Management plans could be recognised as being much more than a practical tool for conservation, by ensuring partners think about the role and benefits of each LNR within the 'bigger picture'. By also stimulating innovation and delivering of multisectoral benefits, management plans could be used to help secure additional resources from external partners, as opposed to becoming a burden for site managers. Recommendations on this are therefore made in the Chapter 5.

Development plans also appear to be playing a passive role in LNR management. Whilst it is not appropriate to describe LNR management issues in detail within local or structure plans, they could play a key role in setting them within their wider context. Again, recommendations for this are therefore made in the final chapter.

Similarly, LBAPs appear to be overlooked as a vehicle for progressing the LNR agenda in many local authority areas. Scope for more active promotion and introducing a degree of strategic prioritisation, as is the case in the Edinburgh LBAP, is therefore also raised as a potential opportunity in the final chapter.

4   HOW ARE LNRs RESOURCED?

4.1   Introduction

The funding of LNRs is a key factor in their selection and declaration as well as their long term success in meeting policy aims. LNRs are typically designated on local authority owned land and therefore come within the local authorities budgetary provisions. *Local Nature Reserves in Scotland: A guide to their declaration and selection* (SNH, 2000) highlights that SNH funding for LNRs will not exceed 50% and does not include grants for maintenance. As such, local authorities are encouraged to investigate ways of levering other funding sources.

This section of the report examines current core funding for LNRs, as well as more innovative funding sources and grants which have the potential to meet future LNR needs. It includes the following:

- the sources of funding which are currently being used, and what they are being used for;

- examples of innovation in accessing alternative funding sources;

- gaps in resourcing, together with sources of support which could potentially be drawn from to meet future needs; and

- conclusions on the extent to which LNR resource requirements are being, and could potentially be, met.

4.2   Previous evaluations of resources for LNRs

The 2001 LNR Workshop (SNH, 2001) identified the following potential **sources of funding** for LNRs, available in 2001 (note that these sources may no longer be available):

- European – structural funds, community initiatives, research and development funds;

- Lottery – Heritage, New Opportunities, Community, Sports and Arts;

- SNH;

- Landfill Tax;

- Sponsorship – corporate sponsorship;

- Charitable giving – trusts, corporate giving, bequests, patronage.

However, the 2001 LNR Workshop also noted that funding is commonly a problem area for LNRs (SNH, 2001). It was outlined that in some cases a project cannot get off the ground due to lack of funds whereas in others the initial capital funds are easy to access but provision for maintenance is difficult.

4.3   Core funding

Core funding for LNRs comes from local authorities. SNH provides support for the development of LNRs through a locally available grant, which funds activities such as:

- positive management agreements;

- land purchase;

- development of management plans;

- site development;

- development of access facilities;

- enhancement of biodiversity;

- environmental Education and Interpretation;

- activities which involve local communities in LNR management.

Local Nature Reserves in Scotland: A guide to their declaration and selection (SNH, 2000) highlights that SNH funding for LNRs will not exceed 50% and does not include grants for maintenance. As such, local authorities are encouraged to investigate ways of levering other funding sources for maintenance. SNH grants which have been used for capital work may include:

- the 'Special Places' grant: provided for improving the natural, wildlife and scenic qualities of a site;

- 'Supporting biodiversity' grant: provided to promote, protect and improve biodiversity;

- 'Paths and Routes' grants: for developing paths and routes which help people to enjoy the natural heritage;

- 'Attractive places to live' grant: to improve the quantity, quality and accessibility of green space in and around our towns and cities, and to involve communities in planning and managing them;

- 'Involving people': to raise awareness and understanding of the natural heritage and to encourage more people to be involved with the natural heritage;

- 'Waters for life': Promoting sustainable approaches to managing freshwaters, coasts and seas, and developing new techniques and approaches to tackle issues affecting their use and management.

The graph below shows the total grant awarded by SNH to LNRs in Scotland from 2001–2004. This shows a major increase in the level of funding over the years.
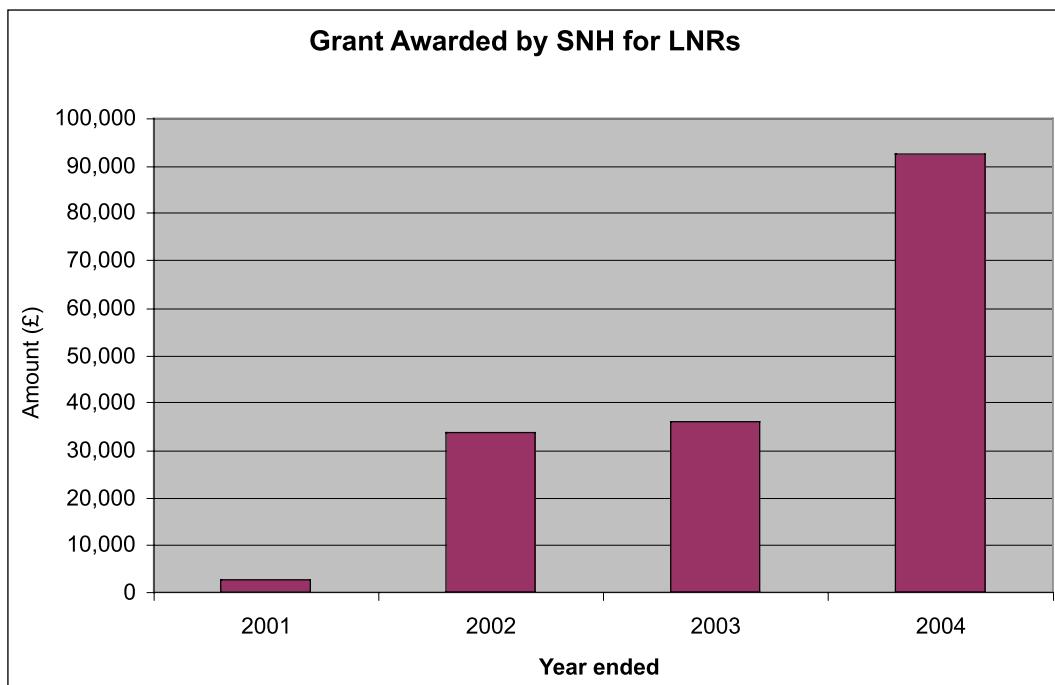
More detailed examination of the figures show that the following local authorities have been particularly successful in securing funding:

- in 2000–2001, funds were allocated only to East Lothian Council and Clackmannanshire Council;

- in 2001–2002, a significant contribution was made to Meadows Yard LNR (via the management group), Hermitage of Braid LNR (Edinburgh Council) and Corstorphine Hill LNR (via the 'Friends of' group). This represented a large proportion of the total funds during that year being spent within Edinburgh;

- in 2002–2003, Edinburgh (Ravelston Woods) again accounted for a significant (but smaller) proportion of the total funds disbursed, whilst a significant contribution was also made to Birnie Loch LNR, and Wigtown Bay to a lesser extent;

- in 2003–2004, the largest grant was made to Aberlady Bay, whilst significant multiple claims were made by East Dunbartonshire Council (covering several LNRs), North Lanarkshire Council and Dumbreck Marsh.

A review of the figures also shows that the majority of the funding seems to be spent on access, interpretation and promotion of the LNRs.

4.4   Other sources of funding

Other grant scheme sources of funding acknowledged by questionnaire respondents include the **Scottish Forestry Grant Scheme** (SFGS) and those from **Greenspace Scotland**. The SFGS aims to ensure that the establishment of new woodland areas is complemented by longer term sustainable management, and has been reported as a source of funding at Scotstown Moor, Kincorth Hill, Donmouth, and Den of Maidencraig LNRs. Greenspace Scotland, who aim to promote open green areas, particularly in urban areas, have been stated as a source of funding at Scotstown Moor, Kincorth Hill, Donmouth, Den of Maidencraig and Birnie Loch LNR.

The management plan review and in particular questionnaire findings also identified a number of unusual sources of funding which have been drawn by LNRs. The remaining primary sources of funding identified in the questionnaire responses were more ad-hoc and site specific. These include:

- **Heritage Lottery funding:** Montrose Basin, Mull Head, Perchy Pond, Dumbreck Marsh;

- **Scottish Forestry Grant scheme** (SFGS): Scotstown Moor, Kincorth Hill, Donmouth, and Den of Maidencraig;

- **Local groups and organisations:** Arnhall Moss, Dumbreck Marsh, Eden Estuary, Torry Bay, Gillingshall, Birnie Loch, Coul Den, Dalbeath Marsh, Loch Stiapabhat, Ness, Isle of Lewis, Castle & Hightae Loch;

- **Private businesses:** Eden Estuary, Torry Bay, Gillingshall, Birnie Loch, Coul Den, Dalbeath Marsh;

- **Local individuals and trusts:** Eden Estuary, Torry Bay, Gillingshill, Birnie Loch, Coul Den, Dalbeath Marsh, Dumbreck Marsh;

- **Enterprise companies:** Perchy Pond, Dumbreck Marsh;

- **Landfill tax credit:** Perchy Pond, Dumbreck Marsh.

A number of sites had successfully secured funding from other, more unusual, avenues. Arnhall Moss and the Waters of Philworth LNRs acquired European Objective 5b funding for access work. On a more local scale, in the Montrose Basin LNR, revenue had been collected through the selling of permits for wildfowling and indirect funding from the entrance charge for the SWT visitor centre on the site and local SWT members have also contributed to projects.

In LNRs with active local community participation, gaining funding resources appear to have been more successful. For example, the Dumbreck Marsh Art Project enabled the LNR to gain funding for artists in residence, school projects, community events, and entrance features on site through enthusiastic campaigning. The Lochmaben Community Initiative at Castle and Hightae Loch has also played a similar role.

The 2001 LNR Workshop (SNH, 2001) highlighted the following opportunities for funding and maintenance that may not commonly be considered:

- being judged for the Britain in Bloom Competition, an LNR was cleaned up by the Council's Direct Labour Organisation, despite previous difficulty in involving the DLO;

- bad weather prevents an Environmental Task Force from carrying out their assigned work, leaving them free to work on the LNR;

- a management plan which identifies clear, priorities, tasks and suitable groups to carry out work will make utilising all opportunities more worthwhile.

In Inverclyde, although funding has generally been available, it has tended to come from ad hoc sources and be quite fragmented. The relevant SNH area officer suggested that ways in which more reliable maintenance funding streams could be established for LNRs could be considered, like those, for example, which exist for other resources like community halls. She also reported that in Inverclyde support for an LNR has been gained via the justice system with management and maintenance being undertaken as part of the community service programme.

The Donmouth LNR has been assisted by grant aid from SNH, but has also drawn down funding from local business. At Den of Maidencraig, ACP has drawn down resources to management the site from both local business and landfill tax credits.

4.5   Case study: Dumbreck Marsh, Kilsyth

4.5.1 Site description

4.5.1.1 Background to the site

Dumbreck Marsh LNR is a key example of where an alternative funding source has supported work on an LNR through the Dumbreck Marsh Arts Project. The site is a former industrial mining area converted to valuable marshland and grassland. Dumbreck Marsh was designated an LNR in 1993. The historic industrial nature of the site means that there are strong community ties to the site. The site covers 18.6ha and key assets of the site include ground nesting birds such as Water Rail, Skylark and Lapwing and wintering wildfowl. It was designated as part of a series of valuable wetland sites across the Kelvin Valley area.

The development of the Dumbreck Marsh Art Project stemmed from participatory appraisal undertaken in 1997 which showed that few local people knew about the LNR or its wildlife value, but that there was strong interest in industrial heritage.

The site is very open, but required access works to encourage people to use the site. An interpretation plan was written which identified that access improvements had potential for interpreting the wildlife and industrial heritage. The idea was developed to use sculptures as way-markers, gates etc. The target audience for access was identified as local people living within surrounding communities. Clear interpretive objectives were written for the site and North Lanarkshire Council approached the two local Community Councils to see if project had possibilities and to invite them to join a small working group.

£4,000 SNH/North Lanarkshire Council funding was secured to commission the arts organisation "The Centre" to write the Art project action plan. The idea was expanded to include employing artists to undertake residencies working with local schools, and community groups. Some projects were to be site based with others in the town and village.

The project was developed and managed by the Arts Management Group which is a constituted group. Members of the group include: North Lanarkshire Council Community project officer (Conservation and Greening) Community Arts Officer, The Centre (project managers) Kilsyth Community Council and Queenzieburn Community Council representatives. Over £200,000 funding has been secured from North Lanarkshire Council and several external funders including North Lanarkshire Forward, Forward Scotland and Scottish Natural Heritage. Reflecting the nature of the arts project the focus for funding has been arts and interpretation with a strong element of community involvement and publicity. This will have raised the profile of Dumbreck Marsh within the local area and contributed to community ownership, interest and education about the site. The funding supported the construction of the bridge, boardwalk and access improvements, however the nature of the project meant that funding did not support practical management work on the site.

The main issues on the site are scrub encroachment, which reduces the habitat value for breeding birds, and the need to do more habitat and species monitoring on the site to establish the distribution of species. Part of the grassland is grazed by cattle on a seasonal lease although this is likely to be reviewed in the future. The poor grassland over shaly coal deposits has been increasing in fertility over the decades. This coupled with a possible reduction in water levels through the site has not been to the advantage of some species, such as Redshank and Snipe. Overall however the biodiversity has increased, with a wider flora range and birdlife than previously.

Some of the major benefits of the site include unlocking resources, community involvement and partnership working. This has primarily been through the Dumbreck Marsh Art Project, an innovative partnership between the two local Community Councils and North Lanarkshire Council as owner and manager. The Dumbreck Marsh Art Project is a five year project which runs until June 2006. The project has used art to raise awareness of the site and reflects the industrial history of the site. As part of this, funding has been gained for the employment of artists in residence, for work with schools and for the creation of a pond with boardwalk. A key issue for carrying forward the momentum of the Arts project is to reinforce the links between the Ranger service and the community to reiterate that the site will continue to be managed after the project is finished.

View to pond and boardwalk at Dumbreck Marsh LNR

While the Arts Project has been successful in bringing resources to the LNR it has not provided funding for habitat work and it has been difficult to secure work parties or funding to undertake scrub management work. Some fencing removal work has been undertaken by the local criminal justice service team. LNR designation has assured that no development applications will be considered on this greenspace. There are further plans for the development of the site including seats, interpretation, the creation of a birch circle on an open area of mown grass close to the new housing at Gavell Road. Work undertaken as part of the arts project included the creation of the boardwalk and bridge. People counters were also put in as part of the funding package to show the increase in visitors through the works. The LNR status of the site has been beneficial in securing funding for the project.

4.5.2 Key issues

There are no major problems on the site, however the main habitat issue is controlling the scrub levels. There is little antisocial behaviour on site, with minor vandalism, congregation of youngsters and some tipping at the Garrel Road entrance. There is a conflict between the use of the site for dog walkers and the ground nesting birds, however this is managed by asking local users to keep their dogs under strict control during the breeding season. The illegal use of guns is an occasional problem on the site. Dumbreck Marsh Art Project partnership as an innovative good practice example for gaining extra funding and community benefits.

Western area of Dumbreck Marsh LNR

4.5.3 Management

The current management plan is 13 years old and was prepared by an outside organisation. Since the management plan was written there have been significant changes both on the site through the Arts project and within North Lanarkshire Ranger Service. Due to recent changes in North Lanarkshire Council site stewards have been appointed and annual site steward reports are now to be submitted. It is hoped to redevelop the management plan in the coming year or so.

The management of site users with dogs and the ground nesting birds on the site is addressed through signs at all entrances to the reserve. However it was acknowledged that it was a difficult message to get across. Work through the Arts Project has also sought to raise awareness of the need for responsible access. One of the projects undertaken through the Arts Project involved working with local schools to design posters communicating the key messages for the LNR.

The site has management rules, not bye laws and the management rules are being revised in the next 2–3 years as part of the access legislation. Access through the LNR and to the adjacent path network is an important element of the site. Ranger commitment to the site has been greater due to the presence of the Arts Project and the site is visited regularly for bird counts as part of the Wetland Birds Survey (WeBS).

4.5.4 Targets and monitoring

Monitoring of the bird populations is undertaken as part of WeBS, but as noted previously there is a need for a baseline survey of the LNR in order to obtain information to inform future management and monitoring. A spider survey was carried out on the site in 2005 and funding for this was secured through the Arts Project, and is linked to an art project to create a spider themed bench for the site. Visitor counters were also installed as part of the funding for the Dumbreck Marsh Art Project, however these are no longer read.

4.5.5 Educational and volunteer involvement

The Art Project has been key in raising awareness about the site and its wildlife with the local community in Kilsyth and links with schools have also been strengthened through this. St Patrick's Primary which is located a short distance from the site approached the Ranger service as they wanted to do pond dipping. Kilsyth Academy was involved in the LNR through the arts project and the contacts from this work will develop through future involvement of the school.

4.5.6 Events and publicity

Events held at Dumbreck include a Ranger led night walk, which attracted six people. The Art Project events have also attracted good numbers of people.

The Art Project is viewed as having attracted people to the site who would not have visited previously, although the site has always been well used. The site steward intends to contact Kilsyth and Queenzieburn Community Councils in the coming year to make them aware of the continuing council involvement on the site.

Footpath at Dumbreck Marsh LNR

4.5.7 Access

The paths on the reserve are of good quality and the main circular walk around the LNR uses a path just outside of the reserve boundary alongside Garrel Burn and the River Kelvin. Access to the site is from the neighbouring housing areas, through the industrial estate at Garrel Road and from the south of the site where the footpath network links to Twechar and Auchinstarry. Over the duration of the Dumbreck Marsh Art Project access has improved through new paths, footbridges, boardwalks and signage.

One of the final projects related to the Arts Project is the replacement of the interpretation signs and installation of new waymarkers on the site to guide people onto the main circular route.

4.5.8 Grazing scheme

Part of the site is managed under a winter grazing scheme which was established early in the site's designation, in which a number of cattle graze an area of the bing and grassland to the south. This agreement may be reviewed as it does not appear to be encouraging the desired vegetation management.

4.5.9 Dumbreck Marsh Arts Project

The Dumbreck Marsh Arts Project Partnership attracted substantial funding for artists-in residence, school projects, community events, and entrance features on site, from a variety of sources. Community Environmental Regeneration Fund (CERS), NL Forward (landfill), Scottish Arts Council Lottery Fund, Esmee Fairbairn Trust, and many more. A recent 2–3 year programme of capital works to resurface the path network, new fences, new footbridges, came from the Council's own capital resources, Paths-for-All and SNH. This has been a very innovative approach to LNR improvement ,and has hugely raised awareness in the local community.

4.5.10 Future plans and resources

The Council have responsibility for the management and maintenance on site. There is a visiting ranger who is the site steward. A recent programme of capital works to resurface the path network and create new fences and footbridges, was funded by the Council, Paths for All and SNH. The Art Project itself attracted substantial funding from bodies such as Community Environmental Regeneration Fund and the Scottish Arts

Council Lottery Fund. When the Art Project comes to an end in 2006 it is hoped that the Countryside Ranger who visits the site will be able to continue the community liaison which has been started.

The current focus for the site has been on the development of the Arts Project, however future plans for the site include undertaking habitat and species surveys to establish a baseline for the site. Due to the size and diversity of the site there is scope to manage the site for a range of different species. This work will be funded through the ranger service and council ecologist although other options for funding will be explored.

4.5.11 Future LNR designation

The policy officer response from North Lanarkshire states that there are no plans to designate further sites, primarily due to a lack of revenue funding. There are other sites in the area, such as the three country parks and high profile managed sites such as Colzium estate and Dalzell estate which also deliver similar benefits to LNRs and are major honey pot areas for visitors.

4.5.12 SWOT analysis

The following table sets out a SWOT analysis for Dumbreck Marsh LNR.

Strengths	Weaknesses
Dumbreck Marsh Community Art Project Links with schools Funding associated with Art Project Community ownership of site	Lack of on site warden/ranger Lack of biodiversity information for the LNR
Opportunities	**Threats**
Continued community involvement from Art Project	Lack of habitat management

4.6   LNR status and accessing funding

It seems that LNRs are useful in obtaining external funding. In the Aberdeen area LNRs have previously received grant aid from the SNH LNR Grant Scheme for leaflets and site signage, although this scheme is now no longer in operation. In some cases it was mentioned that funding was readily found from within local authorities for initial designation (ie to cover legal and staff costs); however funding for ongoing maintenance is more difficult.

However, it appears that in situations where there is a local group or organisation the issue of ongoing funding was less of a concern. For example the Dumbreck Marsh Art Project (a partnership between the local community councils and North Lanarkshire Council) has enabled the LNR to gain funding for artists in residence, schools work and pond creation. This is likely to be the case because often community groups are eligible for funding that local authorities are unable to access themselves.

4.7   Potential funding shortfalls

From within the questionnaire responses, there were differing perspectives on the availability of funding for LNRs and whether more resources are required. The survey of site managers suggested that in around a third

of cases it is considered that there is currently adequate funding, though most also pointed to the uncertainty of future funding given council spending cuts. However, in a larger number of cases, there was a lack of staffing to carry out current maintenance and monitoring of sites, let alone realise future LNR goals. The management plans showed that many of the LNRs have management constraints, as a result of a lack of funding and personnel. For example, at Birnie and Gaddon Lochs, the minimum level of activity required to maintain the site has been identified. The draft management plan for Donmouth LNR identifies constraints and states that "*It is likely that funding and manpower will limit the future management of the reserve*". Similarly, at Kincorth Hill the limited availability of maintenance funding for projects was noted.

In contrast, most policy officers in authorities with LNRs considered that there was currently sufficient funding, but that the addition of further sites would stretch resources. Securing additional funding to cover staff time, and ongoing future costs were highlighted as a key barrier to the creation of additional LNRs. In terms of the potential of LNRs, one respondent highlighted the unrealised potential that could be achieved if funding was available to work more closely and extensively with local communities. Funding was identified as a key barrier to the designation of privately owned sites, given the staff and financial resources required to acquire the site, establish and service a management group and implement management appropriate to the LNR. It was suggested that an 'easy win' strategy would focus attention on sites that are currently within a council's ownership.

For officers in local authorities without LNRs, resourcing issues together with a lack of guidance and political support were highlighted as barriers to LNR designation.

A similarly varied response was elicited from SNH staff dealing with LNRs. Many respondents considered that there are currently insufficient resources to support LNR management and the designation of additional sites. In some cases, where it was considered that SNH funding is currently adequate, it was perceived by respondents that this would be stretched if additional LNRs were to be designated.

Questionnaire respondents were generally unable to suggest other sources of potential funding. The site manager of Eden Estuary proposed the possibility of entering into partnership with landowners using agri-environmental schemes. The treasurer of the Lochmaben Community Initiative stated they were searching for funding from charities, institutions and local government. Local initiatives were also put forward, for example on Lewis & Harris the SNH policy officer noted there was talk of producing a card for sale by a local artist to raise funds for their LNR. The ranger for Renfrewshire council wished to see local businesses being given incentives to support and fund the management and conservation of LNRs, although local businesses are unlikely to agree funding for maintenance costs.

Another way forward to unlock more funding for LNRs was suggested by one participant as being ring fencing Scottish Executive funding for local outdoor access provision and greenpaces. The respondent felt that this could be justified particularly in view of the potential they have to contribute to the health of the nation.

Volunteer inputs to site management are valued across the range of LNRs. In Aberdeen, inputs to the Den of Maidencraig LNR have been made by Aberdeen University Conservation Volunteers, the Foyer Lifeshaping Group, members of the management advisory committee and the public. At Kincorth Hill, again Aberdeen University provides an important input, as well as the Alford Centre, local Kincorth groups and public volunteers on specially promoted days. There are also volunteer rangers who patrol the hill and report back to rangers, and they together participate in its management through a volunteer management committee.

User group respondents highlighted the need for additional funding, particularly from local councils. Potential alternative sources of funding included the involvement of local businesses (sponsorship of management and conservation) and Heritage Lottery Funding. There was a concern that the funding of LNRs might be further squeezed as funding is directed to higher profile or 'more prestigious' designations. In addition, while partnership working was recognised as a means of securing additional resources, the practical implications of this for management were noted.

Heritage Lottery Funding was noted as being a possibility at both the Castle and Hightae Lochs LNR in Lochmaben and the Mull Head LNR in Orkney. The HLF bid at Lochmaben is for around £50,000 of environmental work at Castle Loch. In Orkney the proposed new interpretation centre is to be funded through HLF as part of a project called Viking Heaths.

4.8   Potential alternative funding sources

Having established current sources of support for LNRs in Scotland, it is useful to take into account further potential resources which appear to have been overlooked, but which could provide useful alternative examples:

- **Awards for All** gives small grants of between £500 and £5000 for projects that get people involved in their community and involved by small community groups. The fund covers a number of core aims including arts, sport, heritage, social, environmental, health-related, educational and other community activities. In order to access this funding, an LNR project must involve local community groups in identifying how the project will benefit the interests for the community at large.

- **Barclays SiteSavers** helps communities take action to transform derelict 'eyesores' on their doorstep into dynamic places for play, education, relaxation and fun. Projects must make an immediate physical difference to the quality of the local environment by tackling dereliction, vandalism, graffiti or wasted space. Several LNRs could be viewed as having already contributed to the aims of this scheme.

- **BT Countryside For All** provides grants of £250–£1,500 to improve access in the countryside for disabled people. LNRs without current or adequate provision for disabled access at present could establish the feasibility of improving disabled access and use any such justification to access funds under this scheme.

- The **Co-Op Foundation** can provide grants of £200–£30,000 to community groups.

- The **Ethnic Minorities Award Scheme for Environmental Projects** can provide grants of up to £500 where there is significant involvement of ethnic minority communities. LNRs with a significant ethnic minority catchment could investigate further involvement in community groups and projects relating to these groups.

- **Lloyds TSB Foundation** can provide grants of between £500 and £10,000 to charities and community groups.

- **European Union Objective 2 funding** is available in certain eligible areas. It aims to improve the competitiveness of businesses, to develop the strategic infrastructure required for economic growth and to aid the development of sustainable communities in urban, rural and coalfield areas.

- **Shell Better Britain** can provide up to £2000 for community environmental groups.

These additional sources of funding represent a range of different sources, many of which have a community focus. The analysis suggests that there may be scope therefore for LNRs to access a wider range of resources, providing that there is meaningful and active involvement on the part of community groups.

In addition to these obvious additional sources of funding, there is likely to be further opportunities to secure support from a wider range of partner organisations than is currently the case. In particular, by responding more positively to the health agenda, LNRs could draw down resources from area health boards or NHS Health Scotland at the national level. By connecting with community regeneration schemes, there may be also be funding available from bodies such as Communites Scotland, although in order to achieve this clearer links between communities and, in particular, housing areas and LNRs would be required. Further scope for gaining support from the private sector and the network of Local Enterprise Companies could also be explored further, particularly if the economic role of LNRs is prioritised.

4.9   Funding of LNRs in England and Wales

It is also useful to take into account the range and scale of resources which have been secured to support LNRs in England and Wales, in order to identify whether lack of resources is a Scotland-specific issue. In particular, it is interesting to consider the role which LNR specific lottery funding might have had in stimulating designations and helping LNRs to achieve a wider range of benefits.

In England Lottery funding has been used to fund Wildspace! a grant scheme for local nature reserves in disadvantaged areas. The scheme will run until 2006, however at present no more funding will be allocated as all funds have now been committed and over 150 LNR projects have been funded across England. Awards have been made to organisations involved with or interested in managing and developing LNRs, including local authorities, wildlife trusts and charitable groups.

The scheme has several aims, including to:

- increase the number of LNRs in England, with a target of 200 new LNRs to be declared over the life of the Wildspace! grant scheme;

- realise the potential of LNRs for wildlife and the community by enhancing the quality of experience for users;

- enable the employment of Community Liaison Officers to facilitate community participation in the management and development of LNRs;

- promote the use of LNRs for environmental education.

English Nature believe that Wildspace! and its predecessor played an invaluable role in stimulating LNR designations within England. However, funding remains a challenge which English Nature continues to grapple with: *"If the progress which Wildspace! and earlier efforts has brought about is to be maintained – and the investment which all this represents, protected – then it is imperative for English Nature to find ways of continuing to channel funds towards LNRs, whether through local authorities or by other means. Future funding needs also to take into account the needs of those LNRs which have been relatively neglected in the recent past."* Berry (2005) has also noted the role of key initiatives including the publication of guidance and the importance of the lead taken by NCC and English Nature in contributing to the process. As a result, it can be concluded that although Wildspace! has had a positive influence, it does not wholly account for the higher level of designation experienced within England.

In Wales the CCW does not have full records on funding for LNRs, but are aware that the difficulties which some LNRs have in securing resources has led them to secure a wide range of external assistance.

4.10   Conclusions

This analysis of funding for LNRs has shown that there are concerns about funding for current and future LNRs amongst local authorities, site managers and within SNH. There appears to be no clear pattern of success or failure to secure resources which can be attributed to site characteristics or contexts, although it is notable from the questionnaire responses that the urban and urban fringe sites appear to be slightly more optimistic about funding than their more rural counterparts.

Overall, there are widespread concerns about funding, particularly in terms of securing revenue support over the long term to cover maintenance and management costs. Many of the concerns relate more specifically to the potential for difficulties to grow if additional LNRs are designated. This could therefore be considered one of the key barriers to designation in many cases at present. There also appears to be some concern about resourcing within SNH and the scope which officers have to get involved in the LNR management process. This is illustrated by a view on the part of many that their current inputs should ideally be reduced in the future.

Despite these concerns, there are several examples of good practice and innovation in securing funding for LNRs. There remains scope to broaden the range of funding sources by making more explicit links between LNRs and a wider range of policy aims.

5   CONCLUSIONS AND RECOMMENDATIONS

5.1   Introduction

This section of the report reflects on the findings of the research, set out in the previous three sections. It aims to identify the key barriers to meeting policy aims through LNRs at present, in order to inform a set of recommendations for SNH, LNR managers and other stakeholders with an interest in the process.

5.1.1   Previous recommendations and action for overcoming barriers

In 1994 Objective 16 of *Biodiversity, the UK Action Plan* (Secretaries of State for the Environment and for Foriegn and Commonwealth Affairs, 1994) encouraged the designation of more LNRs throughout the UK, particularly within urban environments. In 1998 the Urban Forum of the UK Man and Biosphere Committee (Urban Forum of the UK Man and Biosphere Committee, 1998) made recommendations on how more LNRs could be encouraged. In particular, this work focused on ways in which management approaches could be used to deliver maximum benefits. It recommended partnership working and networking, the setting of minimum standards and improving community involvement. It also recommended establishing management advisory groups with inputs from local universities, specialist societies and communities. Networking was also strongly recommended by Box and Barker (1998).

More broadly, the Urban Forum proposed that an LNR database should be created in order to assist with monitoring at a national level. Model bye-laws and standard management planning should also be considered, together with provision of more technical advice. It was suggested that monitoring should be undertaken annually. Interestingly, the Forum also suggested that to some extent the availability and value of grants should be used as a starting point for steering activities.

Previous work in Scotland has aimed to achieve better rates of LNR designation in Scotland and has sought to identify how LNRs which already exist could be better managed to provide a wider range of benefits. This varies from the currently proposed approach in England, where it is suggested that *'more is not necessarily better and we should not be afraid to say that proposed LNRs are just not good enough.'* There is therefore potentially a need to temper any further efforts to achieve further LNR designations with an emphasis on achieving a good range of benefits from the sites. It is expected that such an approach would help to overcome concerns about resourcing.

Jamieson (1995) recommended that SNH should enhance promotion of LNRs based on the English Nature model, adapted to the Scottish context. Jamieson's recommendations for LNR promotion were designed to realise the potential presented by local government reorganisation in Scotland and included:

- guidance notes for SNH area officers and local government officers (especially planners) on site selection criteria, declaration and consultation procedures, bye-laws and other technical aspects of site selection, acquisition and declaration;

- SNH officers, particularly at a local level, should be actively encouraged to promote the use of LNR declarations by developing links with local authority officers and maintaining a high level of assistance and advice, particularly in those authorities without in-house nature conservation expertise;

- an abbreviated version of the guidance notes should ideally be produced in the form of a single page leaflet and targeted at local authority elected members and local community/interest groups;

- a simplified guide to LNR management planning (similar to that produced by English Nature in 1994) should be produced, focusing on management essentials and the range of habitats found within Scotland;

- a centralised database of Scottish LNRs should be established and used as means of sharing best practice and advice;

- one or more 'template' LNRs showing how designation and LNR management can provide benefits for public and private land owners as well as the general public.

Jamieson (1995) also referred to the importance that English Nature placed on planning authorities in the designation of LNRs. He noted the preparation of a discussion paper on minimum natural open space provision in urban areas to help planners set targets for their authority area. This paper recommended that LNRs should be provided at a minimum rate of 1ha per 1000 population with at least one 20ha site within 2km of all residents and one 500ha site within 10km of all residents. Jamieson recommended the development of a strategy for Scottish urban areas, requiring planning authorities to adopt and adapt these standards to reflect local circumstances. He did note some reluctance by authorities to the use of such standards since these might be seen as arbitrary and therefore difficult to defend at appeal.

Jamieson went on to point to the potential of the LNR designation in standardising the denomination of urban greenspace with suitable natural heritage interest. He noted the apparent reluctance to acknowledge the importance of enjoyment and experience of 'naturalistic settings' relative to more formal recreation activity.

5.1.2 Progress towards meeting concerns

In response to these issues, the 2000 SNH Guidance provided a structure to help achieve improved uptake of LNRs and consistency of approach (SNH, 2000). It set out selection criteria for LNRs and aimed to clarify the designation and management processes as a means of stimulating involvement and sketched out the processes and factors which make an 'ideal' LNR. The guidance also focused on what SNH can deliver as a key part of the equation, whilst at the same time it recognised its limitations in noting that local authorities will be key partners in the process. The overall tone of the guidance was positive, emphasising the contribution which LNRs make to biodiversity, environmental education, sustainable development and the designation system.

Since previous evaluations of LNRs, SNH has also established an LNR network, and has prepared outline guidance for management plans. These initiatives have gone some way towards achieving Jamieson's recommendations, although it could be argued that the work to date may not have gone far enough towards:

- stimulating more proactive work on LNRs by SNH staff;

- producing a simple promotional leaflet which is widely distributed and further raises the profile of LNRs;

- providing a centralised database of Scottish LNRs which has sufficient information within it to allow its use for sharing best practice;

- providing further models of LNRs.

Partly due to a lack of active management planning at many sites, at the national level there remains a lack of information about current practice which can be used to help guide strategic management and inspire further action. In addition, Jamieson's work focuses particularly on the environmental role of LNRs, and does not fully reflect the wider range of benefits which LNRs have the potential to deliver. We believe that this should be a priority for future action.

5.1.3 A new agenda for action

This study has identified a number of key problems which are forming barriers to LNRs realising policy aims at present. However, several opportunities, that have the potential to achieve additional benefits over the coming years, have emerged from the work. These key findings and recommendations are therefore detailed in the next section.

5.2 Key barriers and recommendations for overcoming them

The following key barriers to realising policy objectives have been identified by the study. In addition, accepting that it would be beneficial to designate more LNRs, the following recommendations have been identified.

1 Low levels of awareness of added value

The questionnaire responses, site management plans and development plans did little to illuminate the added value which LNRs can provide in comparison to other types of natural heritage or even access sites. There appears to be little in the way of monitoring or gathering of evidence which can help to shed light on this issue. LNRs appear to be widely regarded as 'just another' nature conservation designation, with their specific role in combining access to the environment with conservation and enhancement being only implicitly understood by many stakeholders. There is no clear LNR role or 'brand' that policy makers can easily respond to – in short it appears they have an image problem. This has happened despite the numerous benefits they are already delivering in many communities, suggesting the need for sharing of experience beyond those who are already appreciative of the designation.

Perhaps as a result of this it is unsurprising that there appears to be a degree of lethargy on the part of local authorities and community groups with regard to taking forward new sites to designation. In addition, the work has shown that many local authority officers are unclear about the specific role and status of LNRs, with this confusion reinforcing perceptions that they are just another designation' and interchangeable with SINCs. We would suggest that this could be partly attributable to the diverse nature of LNRs themselves, with some being very close to NNRs whilst others reflect quite different settings.

This study goes some of the way towards providing an evidence base on which the successes of LNRs can be better founded, although it remains difficult to isolate the specific benefits of LNRs in comparison to other sites. However, we would suggest that, if SNH confirms its commitment to promote additional LNRs, this is done by raising awareness of their benefits amongst a much wider range of partners.

Recommendation: *Given that the aims of LNRs are clearly stated within the 1949 Act, and in light of the current attention which is being afforded to access related issues in Scotland, this may be a useful point at which further promotion of the special aims of LNRs is undertaken. The aim should be to provide clarity*

regarding the objectives and role of LNRs (including the balance of natural heritage and community interests), emphasise their statutory status and their potential role in delivering a broader range of social, health and community benefits. Case studies, such as those set out in this report, could help to shed light on the specific value of LNRs in balancing demand for access with natural heritage conservation.

Recommendation: *The potential to remove some LNRs from the current list of designations should be considered, by either downgrading or upgrading them (eg making Aberlady Bay an NNR). This could help to reduce confusion about their role and status by providing a more coherent and consistent set of LNR sites to work with and actively promote through improved 'branding'.*

2   Limited management planning

The review of LNR management plans showed that even those which follow SNH guidance lack the type of 'vision' or aspirational thinking which could help to ensure that LNRs are recognised as more than 'just another natural heritage designation'. We identified no examples of management plans which reflect the full range of thinking and positive projects which are happening on the ground. Most of the plans included a degree of evaluation, but this led primarily to a focus on site specific management and conservation related objectives. None of the plans reviewed could be viewed as being useful for accessing funding, apart from support for conservation or environmental works.

Many LNRs currently have no up to date management plans. Even although there is a considerable amount of good work being delivered on the ground, often ideas appear to be ad-hoc as opposed to a more strategic plan. This may be resulting in LNRs not being recognised for the benefits they are delivering, and therefore being less successful in securing support and funding from a wider range of sources (see below).

Recommendation: *We suggest that LNR management plans are reconsidered, and that revised guidance is issued by SNH to site managers. The guidance should seek to take management plans forward to deliver more innovative and inspirational documents which lead good practice and become a key tool for accessing funding and reflecting partner views. Management plans should reflect the broader social, health and community aims of LNRs, rather than focusing more narrowly on sites' natural heritage interest or potential.*

3   Lack of active support from development plans

As well as management plans not helping to secure the future of LNRs, the review of references to the sites within development plans showed that there may be some missed opportunities for LNRs to become more widely recognised as a valuable designation. This is also reflected in the low level response which is recommended to planners nationally, including within NPPG14 and NPPG11.

Although many structure and local plans make reference to LNRs, this is done in a protective capacity, and most plans seek to merely reinforce existing provisions. Whilst the Planning Bill suggests that structure plans in particular should include less detail, and more 'visionary' elements, as the greenspace agenda continues to grow and local plans more actively address strategic issues relating to open space standards and networks, there should be a place for greater consideration of LNRs within plans. It may be useful for the plans to consider the scope for additional LNRs to be brought forward as part of the development of greenspace networks, as this would help to give a clearer rationale for site selection.

Recommendation: *SNH should issue a guidance note which is targeted at local authority planners, and which emphasises the ways in which local and structure plans should support and promote LNRs. This could partly focus on their role within greenspace networks (see below) but could also help to clarify the specific role and status of LNRs, particularly when compared with other sites such as SINCs.*

Recommendation: *It would be useful to highlight LNRs within policies relating to greenspace networks and achieving open space standards, through guidance from SNH, Greenspace Scotland or via national planning policy statements, including NPPG11 which is currently being reviewed, and NPPG14 due to be reviewed in 2006/2007. In particular, it would be useful to provide advice for local authorities on the specific benefits of LNRs as part of greenspace networks, and could encourage them to review the range of sites they already have or could designate in the future as LNRs. A more strategic approach to site selection could help to increase the use and benefits of LNRs, and could particularly support their role as an integral part of community regeneration schemes. The development plan could play a key role in facilitating this.*

4   Mixed views on LNRs from within SNH

A further key finding from the questionnaires was the different views which individual officers within SNH have on LNRs. Whilst some feel that sites being brought forward for designation should primarily have natural heritage interest, others recognise that environmental benefits can be created by taking on sites which currently lack value, but which provide opportunities for restoration.

There are also concerns about time available to support ongoing LNR development, and this is reflected in SNH's internal guidance on LNRs which prioritises the designation of new sites, as opposed to remaining involved in those which have been adopted for some time. At the same time, SNH officers themselves have concerns about their role in stimulating the designation of new sites, often arguing that the impetus for designation should come from local authorities or communities. In terms of resourcing, many SNH officers feel under pressure to meet the needs of existing sites, with several questionnaire respondents wishing to see a downgrading of their involvement in future years as a result. This suggests that there is unlikely to be a willingness to progress additional sites in areas where resources may already perceived as being too thinly spread.

In more rural areas, SNH officers also have concerns about being perceived to be promoting 'yet another designation' and there appears to be a much weaker case to be made for designating additional sites. This contrasts with more urban areas where LNRs are being recognised as a tool for environmental enhancement and providing access to more natural areas. By making SNH internally more consistent, it is likely that their role and status could also be made clearer to other organisations.

Interestingly, despite the higher level of designated sites in England, similar problems seem to exist south of the border. English Nature has also been reviewing its role in relation to LNRs, particularly as it makes the transition to become Natural England. It is also aiming to prioritise further support for LNRs from within its own organisation, stating: "*Rather than looking to do the least we can get away with, we should consider the most we can manage. LNRs have long been near the bottom of the priority heap. If they stay there, the situation can only deteriorate.*" (Berry, 2005).

Recommendation: *SNH should revise and actively promote its internal guidance on LNRs, to clarify its support for LNRs, prioritise future action, and address concerns felt by some officers about the availability of resources and their role in relation to LNRs. It may be useful to highlight the wider benefits of LNRs and to emphasise that they need not be taken forward at sites which are already of natural heritage interest. (This approach has been promoted successfully by the CCW). It would also be beneficial to steer SNH officers towards advising local authorities and community groups on site selection by highlighting potential site selection parameters and the fit of LNRs within wider greenspace network development, open space strategies and audits, and local and structure planning (see previous recommendations).*

5   Lack of links with social inclusion and community regeneration

The research showed that although more recent LNR designations have tended to be of a more urban character, there has been no conscious emphasis on prioritising new designations in areas where social exclusion on the basis of health, income, employment or community is currently concentrated. Despite this, several existing LNRs have progressed the social inclusion agenda implicitly as part of their promotion and use more generally. We would suggest that there may be scope for achieving further benefits for social inclusion by targeting additional designations within communities where there are significant problems with deprivation. These are often, but not exclusively, urban or urban fringe areas.

There is likely to be an opportunity for LNRs to become more widely perceived as a tool for community development, as opposed to primarily a natural heritage designation. It would be useful for examples of good practice to be shared, and for community groups themselves to be encouraged to be more actively involved in identifying potential new sites. Community partners within LNRs such as Kincorth Hill, could help to inspire other such groups to take action.

Recommendation: *Advice from SNH should go beyond SNH officers and local authorities to directly target community groups who could play a role in identifying possible LNRs and working with local authorities to achieve designation. This would be particularly beneficial in areas where social exclusion is concentrated, including within urban areas and on the urban fringe where peripheral housing estates connect with the countryside. Examples of good practice, for example at sites around Glasgow and Aberdeen, could be used to raise awareness of the benefits of LNRs as a community regeneration and social development tool. Integration with greenspace audits and strategies will provide a framework for targeting LNR designation to areas where social inclusion or health benefits could be maximised.*

6   Lack of links with health promotion

The research also showed that there remains a low level response to the health improvement policy agenda on the part of LNRs in Scotland. Although site managers felt that individual users of sites were likely to experience health benefits, there were only a few cases of LNRs where initiatives such as the 'green gym' or health walks are being progressed as a priority.

The situation is quite different in England, where it appears that strong links have been established between LNRs and health promotion initiatives. This shows that LNRs could achieve more health benefits, and could in turn be better supported by the health policy sector, if health became a higher profile aim of more sites. There are obvious potential links between this and the previous aim of linking designations with communities where social exclusion (and therefore poorer health) is concentrated.

Recommendation: *Specific advice to existing and potential LNRs which focuses on their relationship with health improvement should be prepared and distributed. This could also be promoted amongst health professionals, who may then be encouraged to come forward with ideas, initiatives or even proposals for additional LNRs. It may, however, be appropriate to target action in existing LNRs, so that the full potential of the current suite of sites can be realised before resources are extended to other sites. NHS Health Scotland could be a key partner in taking this advice forward.*

7 Lack of experience in involving the private sector/links with economic development

Similarly, there remains a lack of links between existing LNRs and the private sector, with some notable exceptions at sites where a positive relationship has been established. Given the special identity of LNRs in meeting community and environmental aims, and the role which they could potentially play in improving areas where investment is being sought, it is anticipated that the private sector could be targeted as a key additional partner in maintaining and improving LNRs. The network of local enterprise companies could be more actively targeted as a conduit for such investment. Links with wider regeneration plans might also form a key part of this relationship.

Several LNRs in Scotland are already delivering training, ranging from environmental skills to more general staff development. It would be useful to explore whether additional benefits could be delivered, in order to demonstrate further how LNRs can meet the economic development agenda. There are also likely to be site specific opportunities to secure funding or sponsorship from local businesses and organisations.

Recommendation: *SNH should give further consideration to the ways in which LNRs can be promoted as a resource for training and economic development. Links with wider rural and community development objectives could be better established by prioritising action in areas where there are low levels of education, skills and employment. Scottish Enterprise, Highlands and Island Enterprise and their local networks could be targeted as key additional partners in the process. This could help to overcome problems with resourcing, and could ensure that LNRs realise their full potential in contributing to community economic development.*

8 Limited funding opportunities

By demonstrating some of the key additional benefits identified above, it is anticipated that LNRs could begin to unlock a wider range of resources from the public and private sectors. However, the research has demonstrated that communities potentially have a pivotal role to play in accessing funding which may not be available to local authorities. Examples of the way in which this has been achieved could help to overcome concerns about proposing additional LNRs for designation. This would help to achieve a shift from current perceptions that LNRs consume, as opposed to generate funding.

It should also be noted that the availability of LNR specific funding from English Nature is likely to have played a key role in ensuring that further sites are brought forward by local authorities. While this does not fully account for the differential rates of LNR designation, there is a case for reviewing the need for a national source of funding to help Scotland increase the number of LNRs.

Of key benefit to LNR managers would be an inventory of funding sources. Although SNH area officers do not have expertise on individual funding sources an inventory should be coordinated and maintained, which should also highlight the potential of LNR management plans, the involvement of community groups, and

integration with greenspace strategies or LBAPs in accessing other types of funding. The case of Dumbreck Marsh and its success in securing arts related resources, shows that such funding is not necessarily an elusive goal.

Recommendation: *Specific information on funding sources could be provided to LNR managers and to local authorities who have concerns about the potential for additional LNRs to absorb as opposed to generating resources. It would be useful for SNH to provide specialist support and advice to LNRs in order to stimulate additional funding opportunities. Management plans could become regarded as a key tool for accessing resources, in much the same way that Access Strategies throughout Scotland have done in recent years. Further guidance on their role in this respect would therefore be useful.*

9 Lack of clear lines of responsibility/'championing'

During the process of distributing the questionnaires, it emerged that there is considerable variation between local authorities in terms of the positioning of the officers with core responsibilities. Often LNRs have been co-ordinated by officers with environmental interests, but they can also be managed by planners, or those with community development interests, a point raised at the focus group (see Appendix 4). In addition, for each LNR, there are often several officers with an interest and role in its management. Whilst this can be useful, it can also mean that there are no clear lines of responsibility for the site, and that in some cases there may be a lack of leadership or championing of LNRs. There is therefore a need to establish a clear lead for LNRs within local authorities, whilst not undermining the need for cross departmental working to ensure their potential contribution to a range of policy sectors can continue to be met.

Recommendation: *It may be useful for each local authority to nominate a single point of contact for liaison with SNH and other partners in relation to LNRs. Such a person could also drive forward initiatives to secure additional or new sources of funding, and to promote LNRs within development planning. Such key individuals are already active within some local authorities, but in others there is a need for a clearer recognition of the value of championing and co-ordinating work on LNRs. This might also help to clarify the time and resource commitments required to fulfill this type of management, which in turn could assist with justifying funding applications. Such 'champions' could also play a key role in establishing ways of cross departmental working in order to support LNRs across the range of policies (eg planning, environment, education, community, economic development etc). Encouraging LNRs to be placed within council's greenspace agenda could provide a natural focus for this co-ordination.*

10 Lack of clear approaches to identifying potential sites

The final key barrier to LNRs being designated and meeting their full collective potential lies in the lack of clear direction which many local authorities appear to have in terms of identifying potential candidate sites for adoption. To some extent, this would be overcome if the recommendations set out above are taken forward (ie a clearer lead from development plans, open space strategies and national level planning policy statements). In particular, development plans and their relationship with greenspace audits and strategies, and standards, could become an instrumental part of the designation process. LBAPs could also play a greater role in complementing development plans by progressing this as a shared aim.

There is however, little point in progressing as many additional LNR sites as possible if they are not prioritised on the basis of the range of benefits they could deliver. LNRs have the potential to become multifunctional

sites, key tools for achieving access and environmental education in areas where health and social inclusion require prioritisation. They, like other greenspaces, can also contribute to environmental improvement goals. However, they are unlikely to make a significant contribution to these policies if their role and identity is not widely recognised, and if communities themselves do not support, or are not sufficiently inspired by the LNR 'brand' to actively promote new sites.

Recommendation: *SNH should work with local authorities and greenspace partnerships to ensure that audits and strategies are used as a framework to identify opportunities for the creation of additional LNRs. Further work on promoting the benefits of LNRs (as proposed above) could help to ensure that the multifunctional value of LNRs is better reflected as an integral part of greenspace planning processes.*

In conclusion, these recommendations have two key aims: to ensure that current LNRs in Scotland realise their full potential and to stimulate the designation of additional sites where appropriate. This is a good time for LNRs to have greater attention afforded to them, as a result of high levels of awareness of access issues and the greenspace policy agenda being prioritised throughout the country. In addition, LNRs could make a valuable contribution to the new responsibilities which local authorities have to conserve biodiversity, as required by the Nature Conservation Act (2004). This will only be achieved, however, if a clearer and more multifunctional role for LNRs can be established and actively promoted.

We believe that the following overall priorities should ensure that LNRs in Scotland realise their full potential over the coming years:

- **establish a clearer role and identity for LNRs** in Scotland, so that they become a distinctive and more widely understood designation;

- **develop a positive LNR 'brand'** which can be easily recognised and which reflects their special status and unique aims;

- **significantly raise the profile of LNRs** amongst a wider range of partners, including local authorities, businesses and the enterprise network, health authorities, communities and land managers and within SNH itself;

- **demonstrate the full range of policy benefits they can provide**, from greenspace and biodiversity to health, economic development and social inclusion;

- **involve communities as fully as possible** within existing and new LNRs, and ensure that they are active in helping to secure resources for ongoing management where possible;

- **empower LNR 'champions'** within local authorities, who will take a lead in more actively promoting existing and new LNRs and achieving partnership working; and

- **realise the potential of greenspace strategies** in providing a tool for identifying sites where the creation of LNRs could realise social and environmental benefits and allow access to related sources of funding.

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Appendix 1   Report from LNR networking day

LNR networking day discussion

1. LUC attended the SNH LNR Networking Day at Montrose Basin LNR on 28 September 2005. In addition to gaining an insight into the management and operation of the Montrose Basin LNR, the event provided an opportunity to explore a number of the issues that are being explored by this research.

2. Key points emerging from the discussion included:

- The Montrose Basin LNR was one of the earliest LNRs established in Scotland, comprising extensive intertidal mudflats extending from the urban fringe of Montrose to more rural areas inland. The site demonstrated a number of key issues, including the importance of partnership working (including the involvement of land management interests), resourcing, education and community involvement and development pressures on adjoining land. The LNR highlighted issues around public perceptions, since it had been established in response to concerns by local wildfowlers to an unsustainable level of shooting. Designation and byelaws have allowed wildfowling to be controlled, though the fact that it still occurs is sometimes not understood by the wider public.

- Many LNRs are designated in response to management needs (eg over-wildfowling in the Montrose example) or actual or potential development pressure.

- It was suggested that in the case of some potential LNR sites, designation would bring no obvious additional benefit in return for the work required to secure designation. Others argued that LNRs provide protection from development – establishing a trigger for planners. This is most effective where LNRs are shown in local plans or reflected in local plan policies.

- Discussion highlighted the role of LNR byelaws in securing effective management.

- There was a common concern that LNR designation has resource implications, particularly for ongoing management. Designation can also expose the authority in question to further complaints and demands.

- There was some discussion about SNH area commitment to LNR designation, particularly at an area level and in cases where there is not a significant natural heritage benefit. It was suggested that SNH area staff may not have ownership of the LNR policy and may have other competing draws on resources.

- There was discussion about differing perception of 'nature reserves' – what does the term 'local' mean, do people distinguish between local and national and is 'local' interpreted as meaning things that are important to local people or things that are important at a local policy level?

- It was suggested that LNRs may be less important in rural areas where nature on the doorstep.

- There was reference to community nature reserves as a further tier below LNRs – managed by local communities.

- The Nature Conservation Act may make LNRs more important. Planners must take nature conservation designations into account – so LNR designation can be a valuable tool.

- Resourcing identified as a key barrier to designation, particularly for ongoing management. Example from North Lanarkshire where new LNRs only established where they can be linked to commuted funds from developers. Even well established LNRs such as Montrose Basin have significant funding concerns and a decline in staff numbers. Some funding is only accessible by public authorities – other sources only accessible by voluntary sector constituted groups.

- Some LNRs have up to date management plans reviewed on a regular time frame (with SNH and public involvement). Others have no management plan, or draft management plans. Suggested that much shorter 'management statements' may be more appropriate for small sites.

Appendix 2   Questionnaires

LNR questionnaire

Site managers and Local Authority implementation staff

LUC has recently been appointed by SNH to review LNRs in Scotland. The purpose of the study is to explore the effectiveness of the designation and the extent to which it can 'add value' to local community and biodiversity projects. The work is also aiming to establish how LNRs compare with other sites such as country parks or SINCs. This questionnaire is being distributed to those involved in managing existing LNRs, with the aim of identifying the range of current practice, and identifying key issues to be explored in more detail through further case study research.

Your inputs are very much appreciated.

Please complete a separate questionnaire for each LNR you are involved in managing.

Name:

Position and organisation:

Name of LNR you are involved in managing:

What are the key environmental assets of the site?

What were the reasons for its designation?

What type of management practice is in use on the site – please summarise key aspects of the approach and highlight examples of innovation or good practice?

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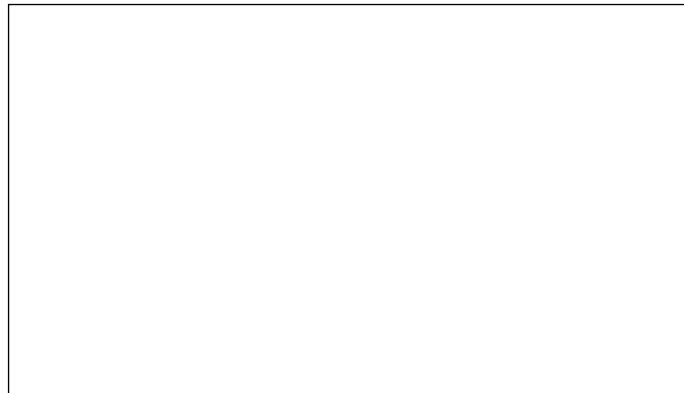
How have habitats and species improved since the site was designated an LNR?
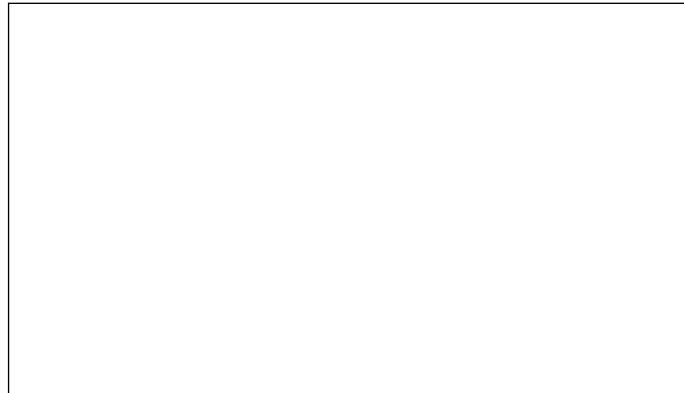
What monitoring is being undertaken in relation to the site?
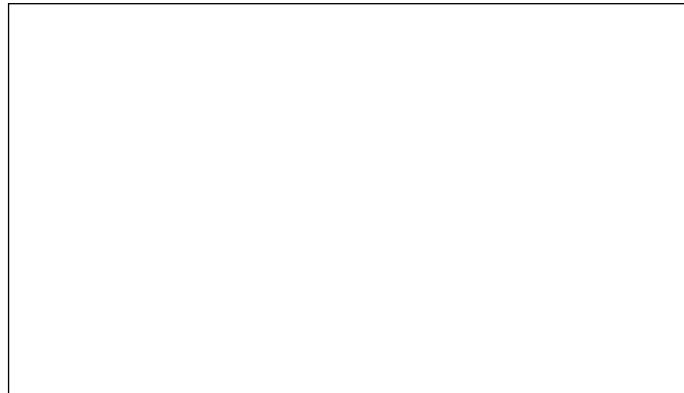
What are the key problems with managing the site – are you experiencing particular challenges?
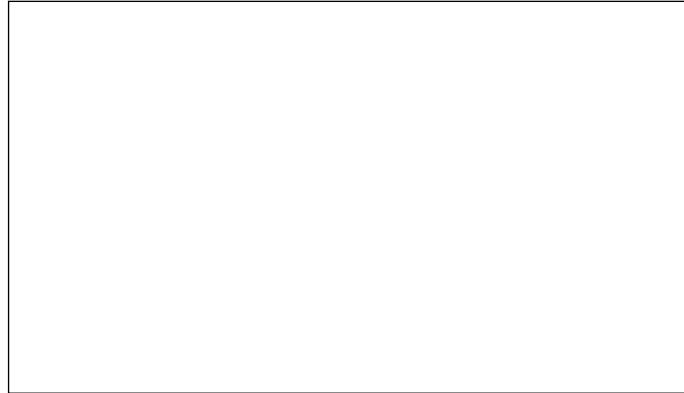
Do you think that the LNR designation has helped to achieve any of the following goals:

	No contribution	Minor contribution	Major contribution	Please explain, giving examples where possible
unlocking resources				
protecting areas from development or other pressures and threats				
raising awareness of the natural environment				
more formal education				
improving health				
securing partnership working with land managers, natural heritage groups, council etc				
facilitating community involvement				
achieving social inclusion				
developing skills				
providing employment				

What are the future plans and priorities for the site?

92

What are the sources of funding which are used to support the LNR – capital investments, maintenance support, funding for staffing?

Have you successfully secured resources for the LNR from unexpected sources? Please identify what sources, what types of funding for what activities etc?

Are there enough resources available to achieve what you would like to achieve within the LNR? Please describe key gaps or shortfalls.

If not, what are your ideas for overcoming these barriers?

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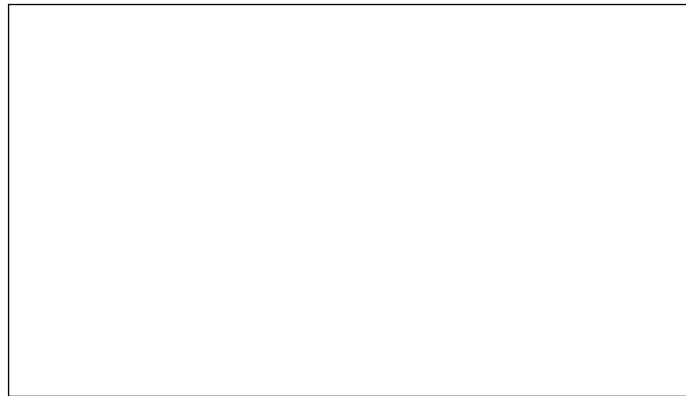
We would be most grateful if you could also provide us with a copy (preferably electronic) of the management plan for the site.

Please return the questionnaire to:

Land Use Consultants
37 Otago Street
Glasgow
G12 8JJ
Or email it to: lnr@glasgow.landuse.co.uk

If you have any questions about the questionnaire or the research project, please call Fiona Simpson on 0141–334 9595.

MANY THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS

LNR questionnaire

Local Authority policy officers

LUC has recently been appointed by SNH to review LNRs in Scotland. The purpose of the study is to explore the effectiveness of the designation and the extent to which it can 'add value' to local community and biodiversity projects. The work is also aiming to establish how LNRs compare with other sites such as country parks or SINCs. This questionnaire is being distributed to those involved developing local authority policies in relation to LNRs, with the aim of identifying the range of current practice, and identifying key issues to be explored in more detail through further case study research. In particular we are keen to involve people who are or have been involved in identifying LNR sites and taking them forward to designation.

Your inputs are very much appreciated.

Which LNRs currently exist and/or are proposed for your area?

What were the main reasons behind taking them forward to be designated as LNRs?

What funding streams have been used to support LNRs in your area?

Do you feel that adequate funding been secured to achieve the aims of your LNRs? If not, please describe key gaps or shortfalls.
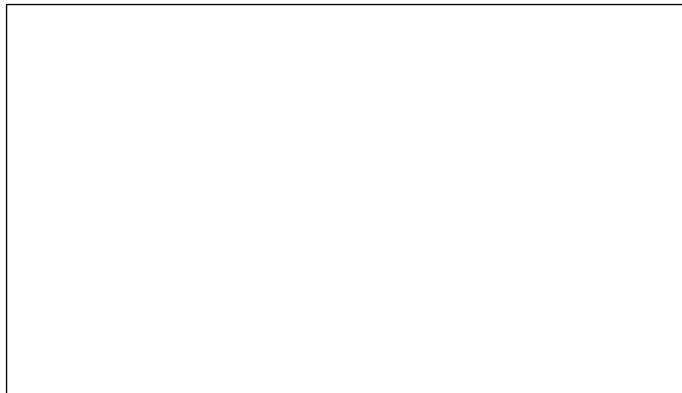
95

Do you have ideas on alternative sources of funding for LNRs in your area that you have pursued or are pursuing?

What do you think the main benefits of the LNRs in your area are?

(Please tick appropriate box)	Major benefit	Minor benefit	No benefit	Not sure
Higher level of awareness				
Opportunities for formal or informal education and research				
Better environmental management				
Help to unlock resources				
Stimulate community pride				
Protection against development or other pressure or threat				
Partnership working				
Other (please state)				

Do other sites in your area which are not LNRs deliver the same benefits? If so, please identify which sites achieve this and explain why?
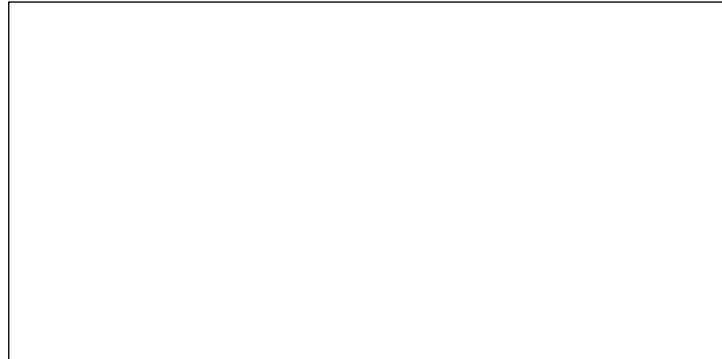
Do you have plans to propose other LNRs in your area – please state sites if are known, and reasons for LNR status.

If not, why not?   *(Please tick appropriate boxes)*

No suitable candidate sites	
Lack of guidance	
Lack of advice from SNH	
Lack of practical or financial support from SNH	
Resourcing	
Lack of staff time	
Lack of staff with appropriate skills	
No budget for legal procedures	
No clear lines of responsibility/department taking the lead	
No staff with clear responsibility for such sites	
Insufficient funds for ongoing costs	
Lack of confidence in meeting future costs (difficult to predict)	
Political perspectives	
Lack of community support	
Lack of landowner support	
Lack of policy and/or political support (see also the following question)	

Are LNRs reflected within wider policies for your area at the moment? eg LBAPs. Community Plans, Community Learning and Development, Structure and Local Plans (please describe). If not has this been a conscious decision or an oversight?

If your area has sites which have been designated as other types of protected area (eg SINCs, Country Parks) etc can you explain why these designations were preferred to LNRs?

Do you have any thoughts on how the barriers to LNR designation could be overcome?

Please return the questionnaire to:

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If you have any questions about the questionnaire or the research project, please call Fiona Simpson on 0141–334 9595.

**MANY THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS**

LNR questionnaire

Local Authority policy officers

LUC has recently been appointed by SNH to review LNRs in Scotland. The purpose of the study is to explore the effectiveness of the designation and the extent to which it can 'add value' to local community and biodiversity projects. The work is also aiming to establish how LNRs compare with other sites such as country parks or SINCs. Questionnaires are being distributed to local authorities who already have LNRs, as well as those who have not. This will help us to identify key issues to be explored in more detail through further case study research.

Your inputs are very much appreciated.

Do you have plans to create any LNRs in your area? If so, please indicate which sites and give an indication of timing.

What stage in the process are you at with achieving designation for these sites? Please describe any factors that have delayed the designation process.

Why are there currently no LNRs in your area: *(Please tick appropriate boxes)*

No suitable candidate sites	
Lack of guidance	
Lack of advice from SNH	
Lack of practical or financial support from SNH	
Resourcing	
Lack of staff time	
Lack of staff with appropriate skills	
No budget for legal procedures	
No clear lines of responsibility/department taking the lead	
No staff with clear responsibility for such sites	
Insufficient funds for ongoing costs	
Lack of confidence in meeting future costs (difficult to predict)	
Political perspectives	
Lack of community support	
Lack of landowner support	
Lack of policy and/or political support (see also the following question)	

Are LNRs reflected within wider policies for your area at the moment? eg LBAPs. Community Plans, Community Learning and Development, Structure and Local Plans (please describe). If not has this been a conscious decision or an oversight?

Has the Council considered the benefits of LNRs as compared to other sites and explicitly rejected them as an option? If so, please explain why.

If your area has sites which have been designated as other types of protected area (eg SINCs, Country Parks) etc can you explain why these designations were preferred to LNRs?

Do you feel that these other sites in your area provide the same benefits of LNRs? Please name and identify status – eg country parks, SINCs.

Do you think the option of designating sites as LNRs has been overlooked in your area, as opposed to consciously avoided?

Please return the questionnaire to:

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**MANY THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS**

LNR questionnaire

SNH staff

LUC has recently been appointed by SNH to review LNRs in Scotland. The purpose of the study is to explore the effectiveness of the designation and the extent to which it can 'add value' to local community and biodiversity projects. The work is also aiming to establish how LNRs compare with other sites such as country parks or SINCs. Questionnaires are being distributed to those involved in managing existing LNRs, with the aim of identifying the range of current practice, and identifying key issues to be explored in more detail through further case study research. This questionnaire focuses in particular on LNRs from the perspective of SNH staff.

Your inputs are very much appreciated.

Name:

Position within SNH:

Please explain your role in relation to LNRs in your area:

Would you like that role to change in the future? If yes, in what way?

Which SNH objectives do you think that
LNRs help to deliver?
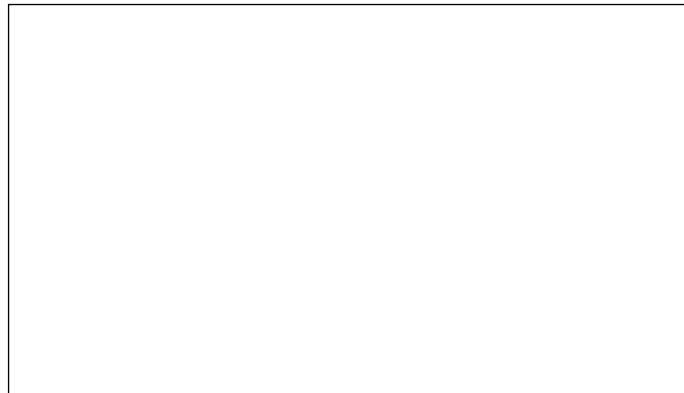
Given the objectives that have been
defined for LNRs, do you think there is a
role for LNRs where natural heritage interest
is currently limited?

Do you think that decision makers are
generally aware that SNH policy is that
people should have access to LNRs?
Please explain why.

Do you think that SNH should be more
actively promoting the Guidance on LNRs?

Do you consider the designation of additional LNRs within your area to be a high, medium or low priority? Please describe the reasons for this.

Do you think further LNR designations would provide additional benefits to SNH or are other sites already achieving this? In what ways?

Have you already been in discussion with authorities within your area about the opportunities for designating more LNRs? Was this led by the council, SNH or other groups or organisations?

Do you have any other plans to further promote or encourage LNR designation within your area over the next year?

Please explain how you are aiming to achieve this?

Do you think enough resources are available to support LNR aims and activities? Are you aware of any novel sources of support which other LNRs could also explore?

105

What do you think the main barriers are to more LNRs being designated within your area?

Please return the questionnaire to:

Land Use Consultants
37 Otago Street
Glasgow
G12 8JJ
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MANY THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS

LNR questionnaire

User groups

LUC has recently been appointed by SNH to review Local Nature Reserves in Scotland. The purpose of the study is to explore the effectiveness of the designation and the extent to which it can 'add value' to local community and biodiversity projects. The work is also aiming to establish how LNRs compare with other sites such as country parks or SINCs. Questionnaires are being distributed to those involved in managing and using existing LNRs, with the aim of identifying the range of current practice, and identifying key issues to be explored in more detail through further case study research.

We are keen to gather views from groups who already make use of LNRs. Your inputs will therefore be very much appreciated.

Name:

Position and organisation:

Which LNR(s) do you use regularly?

What do you use the site for: *(Please tick appropriate boxes)*

Wildlife watching	
General relaxation	
Group activities	
Education	
Informal recreation eg walking, relaxation, quiet contemplation	
Other (please state what)	

What benefits does the LNR provide for your group?

Are there any more benefits which you think the LNR should provide for you and/or your group?

Do you have any concerns about wildlife on the site? If so, please describe.

Are you involved in decision making about the LNR? Are other community or user groups? If so, please describe this involvement (ie formally or informally, what decisions, regularly or on an issue by issue basis)?

Is there a high enough level of awareness of the LNR within your community, or do you think more people should be made aware of it and encouraged to use it? How could this be done?

Can you list any groups who aren't using the LNR, who could benefit from it within your community? (eg young people, older people, disabled groups, specific groups such as scouts and guides, mothers and toddlers).

Do you use any other sites within your area to undertake the same activities – if yes, please indicate which one(s) and their status (eg country park) if known.

Are there other sites within your area which you think should also be LNRs? (if yes, please state which ones)

Do you think that there are enough resources available to manage and develop the LNR properly? Whose responsibility should it be?

Do you have ideas on alternative sources of funding for LNRs in your area that you have pursued or are pursuing?

Do you have any concerns about the future
of the LNR – or LNRs more generally?
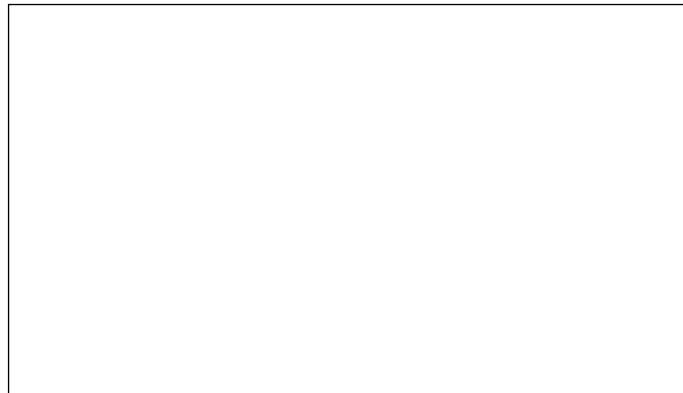
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37 Otago Street
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If you have any questions about the questionnaire or the research project, please call Fiona Simpson on
0141–334 9595.

MANY THANKS FOR TAKING THE TIME TO ANSWER THESE QUESTIONS

**Appendix 3**   Analysis of questionnaire responses

Introduction

As noted in the previous section, questionnaires were distributed to four key groups of stakeholders. The purpose of the exercise was to gather views on both the benefits of LNRs, and the actual and perceived barriers to designation. This chapter of the report sets out the key findings which have been gathered from the analysis of the questionnaire responses.

Site manager questionnaire

Sixteen site manager responses were received, these covered the following LNRs:

- Den of Maidencraig, Aberdeen City;

- Donmouth, Aberdeen City;

- Kincorth Hill, Aberdeen City;

- Scotstown Moor, Aberdeen City;

- Arnhall Moss, Aberdeenshire;

- Waters of Philorth, Aberdeenshire;

- Montrose Basin, Angus;

- Blackford Hill/Hermitage of Braid, City of Edinburgh;

- Castle and Hightae Lochs, Dumfries and Galloway;

- Wigtown Bay, Dumfries and Galloway;

- Aberlady Bay, East Lothian;

- Birnie and Gaddon Lochs, Fife;

- Eden Estuary, Fife;

- Straiton Pond, Midlothian;

- Dumbreck Marsh, North Lanarkshire;

- Mull Head, Orkney Islands.

Site managers were initially asked to identify the primary **environmental assets** of the LNR. Interestingly, with the exception of one site, all were predominantly wetland habitat, including rivers, estuaries, burns, ponds and marsh. These wetland sites, such as estuaries and lochs, were nationally, and in some cases internationally, important for wintering wildfowl and waders. Mull Head in Orkney was the only explicitly coastal LNR, with specific coastal geology, heath and grassland and cliff nesting birds. Kincorth Hill, in Aberdeen, was the only site without wetland habitat, comprising heathland, gorse scrub, grassland and coniferous and broadleaved

Appendix 3   *(continued)*

forestry. Two of the sites had been restored from industrial use, these were Dumbreck Marsh converted from a former mining area, and Birnie and Gaddon Lochs in Fife, which have been created from a sand and gravel working.

The **reasons for site designation** were predominantly linked to the environmental assets of the LNRs and eight out of the 16 site managers explicitly stated nature conservation as the primary reason for designation. In the case of the wetland sites this was mainly for the protection of habitats for wildfowl and waders. It is apparent that where sites were noted to have been designated in the 1950s (Aberlady Bay the first LNR in Scotland) and 1960s (the Castle and Hightae Lochs LNR) the designation was due to conservation and natural history interest only.

In the case of four LNRs the predominant reason for designation was for the protection of the site from development (mainly housing) and this was seen in the suburban and rural fringe areas. In Orkney however, one of the reasons for the designation of Mull Head was for the protection of the site from agricultural improvement and over grazing. Reflecting the predominance of wetland habitat, four of the site managers cited the management of wildfowling practices as one of the primary reasons for designation. Designation due to community use of the site was only mentioned in the case of Birnie and Gaddon Lochs LNR and Waters of Philorth LNR. It was noted that designation was as a result of interest from the community in the case of the former and for the encouragement of community involvement and education in the case of the latter.

Dumbreck Marsh was unique in its reasons for designation in that it included the fact that '*it was part of a series of valuable wetland sites across the Kelvin Valley area*'. This joined up approach was not noted in the case of any other LNRs. However, it is likely that greenspace and LBAPs will increase the potential toplace LNRs within the wider biodiversity network.

Management Practices vary according to LNR however there are some common themes. Management for wildfowling takes place on four of the sites, namely Aberlady Bay, Montrose Basin, Castle and Hightae Lochs and Wigtown Bay. Montrose Basin has a zoning system whereby the west of the Basin is zoned for wild-fowling and watercraft is zoned to the east. Uniquely Montrose Basin also has a swan management scheme whereby mute swans are moved away from vulnerable crops and farmers are compensated for any crop losses.

The management of grasslands is noted in five of the LNRs. This includes grazing and also annual mowing in the case of the Donmouth LNR where the grassland is managed for wildflowers. Habitat management also commonly includes scrub and gorse clearance.

There are two sites where site managers specifically state that management practices are limited. This includes Blackford Hill/Hermitage of Braid, Edinburgh, where woodland intervention is minimal, primarily involving the removal of diseased trees. Where felling does take place felled trees are left whole within the woodland. At the Waters of Philorth LNR in Fraserburgh intervention in natural processes is limited and the only management is in terms of visitor supervision.

Management Plans and management committees or Advisory Groups are noted as being important in the case of eight LNRs. This emphasises the role of stakeholders in LNR management where management plans are drawn up in consultation with organisations such as local community councils. One site manager noted

that '*key to successful management is working well with our neighbours and maintaining an active and helpful presence*'. There are also a number of sites where the local community is involved with actual management practices and this was mainly found within the LNRs in the Aberdeen City area. Involvement includes wildflower and tree planting and bird box making. At the Arnhall Moss LNR in Aberdeenshire community led biodiversity surveying and recording takes place.

Visitor as well as habitat management was important on a number of sites, and usually comprised access management in the form of paths. At sites such as Dumbreck Marsh, visitor management includes paths, signage and boardwalk. At Straiton Pond LNR in Midlothian management for wildlife includes pond clean up and scrub management as well as visitor management such as an access for all path and new outdoor hide and benches.

Site managers were also asked about **habitat and species improvement on the site**. Eight of the responses noted that there had been an improvement in either the number of existing species or an increase in the diversity of species. In most cases this enhancement had been in relation to active management, for example at the Eden Estuary predator management has resulted in increased breeding waders. At the Waters of Philorth LNR controlled visitor access through the dune system has reduced erosion. At sites which have been artificially created or restored there has been significant improvement for example at Dumbreck Marsh the cover of grassland over the coal deposits is increasing and at Birnie and Gaddon Lochs there are now otters using the site.

However some site managers noted that habitat and species improvement was not due to the LNR status. For example at Castle and Hightae Lochs the increased bird species numbers are thought to be due to UK farming practices and climate change. This is also noted at Montrose Basin where increased wildfowl numbers are seen to be part of a wider UK trend. At two of the sites there is competition between the gorse scrub and heathland habitats, both important in their own right, but the heathland is more significant nationally and is therefore given higher conservation priority.

More widespread benefits have been seen at Wigtown Bay, Britain's largest LNR. Here, habitat improvement is not only achieved within the LNR boundary, but associated areas alongside the LNR have also been developed as wetlands.

The **monitoring** of Local Nature Reserves was shown to vary widely between sites. Reflecting the predominance of wetland LNRs within the responses, Wetland Bird Surveys (WeBS) were stated as being important monitoring activities, mostly undertaken by rangers. At seven of the sites, informal ranger monitoring is in place, this is seen particularly at the sites in Aberdeenshire where this casual observation has been complemented by an Integrated Habitat Survey of the whole area in conjunction with the North East Scotland Biological Record Centre. At certain sites however there are specialised surveys such as an annual torch-lit amphibian survey at Straiton Pond and fixed quadrats at the Mull Head site in Orkney.

Arnhall Moss was an exception to the predominantly ranger based monitoring approach. Here, the monitoring of flora and fauna is carried out by Management Group members which includes those from the local community and local experts as well as rangers.

Visitor monitoring was mentioned at four of the sites including an inspection of infrastructure such as paths and boardwalk, as well as vehicle and people counters and permit numbers. However in each case habitat monitoring as well as visitor was undertaken.

Monitoring at a more administrative level was noted in several cases. This includes the monitoring of wildfowling permits by Dumfries and Galloway Council for the Wigtown Bay LNR and water quality monitoring by SEPA at another site. Scottish Natural Heritage site condition monitoring programmes were cited at the Eden Estuary and the SNH Merse Management Scheme was noted in relation to grass quality control at Wigtown Bay.

On site **problems** relating to LNRs are broad ranging and include natural habitat concerns, human disturbance and administrative issues. Habitat problems were noted to include coastal squeeze in the case of Eden Estuary and Aberlady Bay. Other problems include the drying out of the water table at Scotstown Moor, which is thought to be attributable to nearby development.

Habitat issues are also closely linked to human disturbance as in the case of Donmouth LNR, where the sensitive sand dunes are at risk of erosion due to motorbikes and also Kite Karters. Conflict between dog walkers and ground nesting birds are an issue at two of the sites and there is a need for co-operation from visitors to ensure that disturbance is kept to a minimum. Other predominant problems include litter (noted by seven respondents) and vandalism (noted by six respondents). Anti-social behaviour such as drugs and alcohol were mentioned in the case of two LNRs.

A lack of resources was mentioned as a specific problem by one LNR and also the loss of byelaws as protection against unruly or hazardous behaviour due to the introduction of the Scottish Outdoor Access Code. At Wigtown Bay LNR the scale of the site creates administrative problems in terms of the number of people involved in the management of the reserve. The combination of designations, for example LNR/SSSI/SAC also makes both paperwork and regulation complex.

In contrast to the above issues, the Mull Head LNR in Orkney, comprising coastal grassland heath, notes that the only potential problem is that in some years it is difficult to let the grazing.

The majority of site managers felt that their LNRs provided a **range of benefits**, including both minor and major contributions to unlocking resources, protecting areas and raising awareness. Areas where LNRs were not outlined as giving many benefits include providing employment (stated by 11 respondents) and social inclusion (stated by six respondents).

In terms of **unlocking resources** it seems that LNRs are useful in obtaining external funding. In the Aberdeen area LNRs have received grant aid from the SNH LNR Grant Scheme for leaflets and site signage. In some cases it was mentioned that external funding was readily found for initial designation, however funding for ongoing maintenance is more difficult to secure. However it appears that in situations where there is a local group or organisation the issue of ongoing funding was overcome. For example the Dumbreck Marsh Art Project (a partnership between the local community councils and North Lanarkshire Council) has enabled the LNR to gain funding for artists in residence, schools work and pond creation.

The role of LNRs in **protecting areas** was stated as being most important in the case of four sites. In addition, two site managers noted designation as important in the protection of the site against wildfowling. However there were at least three respondents who stated that the overall environmental significance of the site itself would stop any development with or without LNR designation. The Eden Estuary and Castle and Hightae Lochs LNRs were noted as examples where the sites gain more protection from designations such as SSSI and SPA.

Awareness raising was thought to be a minor benefit in the case of seven LNRs and a major benefit in the case of another seven. Awareness raising activities on the sites included recreational use, guided walks, interpretation and educational activities. At Birnie and Gaddon Loch in Fife there is a regular newsletter in the local newspaper relating to the site. Related to this is the provision of more **formal education** including links with local schools, colleges and universities mentioned by all site managers. At Straiton Pond the site is part of the education programme and schools can book an education session with the Ranger Service. Within Aberdeen City council area, however, it is noted that all countryside sites are used for educational purposes whether they are designated LNRs or not.

LNRs were outlined as having **benefits for health** in all but one instance. In particular they are used as areas for walking or jogging by local residents. At Birnie and Gaddon Loch LNR in Fife, the use is wider than this in that the site is used by local day care centres and by the Green Gym initiative. Three site managers noted that where access paths were improved on site the use of the site for walking by local people increased.

Seven site managers stated that LNRs had a major contribution to **partnership working** and this was mainly in terms of the LNR management committee which typically comprises local councils, user groups, agencies and land owner. At some sites partnership working extends to the local community and local volunteers and schools. This is particularly the case where there is a further initiative such as the Dumbreck Marsh Arts Project or where volunteers regularly assist on site. Linked to this is the role that LNRs play in **community involvement** noted as being of major significance in the case of seven LNRs. In some cases this included community participation in events at the LNR and in others, such as at the Eden Estuary where the centre is staffed by local volunteers, it was due to involvement in the running of the site.

There were only three instances where site managers noted that LNRs contribute significantly to **social inclusion**. This includes situations where sites are used by day care centres and disabled groups and promote access for all. In addition two of the sites were used by social services and the parole office for those doing community service.

LNRs were noted as contributing quite significantly to the **development of skills**, particularly in relation to conservation skills such as hand tool use by volunteer groups. At Birnie and Gaddon Loch LNR links with universities and colleges were cited including the use of the site for habitat and species identification.

Providing employment was an area where almost all site managers noted that there was no contribution by LNRs. It appears that this is not an overall aim of the LNRs themselves. However, further indirect economic benefits can be gained such as the contribution that Wigtown Bay LNR makes to the overall visitor experience in the area.

Future plans and priorities for each LNR primarily included both habitat management and visitor provision improvements. At the Eden Estuary LNR the proposal is for managed re-alignment of the coast to create new habitat beyond the sea wall. At Birnie and Gaddon Loch one of the future aims is for connection to the core path network. At several of the sites priorities include increased visitor numbers and community involvement. At Arnhall Moss these objectives include further promotion of the site to the local community.

There were two LNRs where there were additional aims and priorities to those noted above and this included Wigtown Bay where the aim is to employ a second ranger. At Straiton Pond there are issues relating to the encouragement of corporate responsibility among businesses in the adjoining retail park in relation to litterpicking, promotion and funding.

The primary **sources of funding** are commonly from the local Council and from SNH which often jointly provided funding for a ranger post. Revenue funding is almost always provided by the Council, although SNH grants do cover particular projects. Other grant schemes include the Scottish Forestry Grants Scheme and those from Greenspace Scotland. In areas where there is a particular local group or organisation, such as the Lochmaben Initiative at the Castle and Hightae Lochs LNR, funding can be acquired through these groups.

Montrose Basin LNR is in a unique position in that it is also a Scottish Wildlife Trust Reserve. The visitor centre is funded by SWT and local SWT members have also contributed to projects. In addition, income is gained from wildfowling permits and an entrance charge to the visitor centre. Cullaloe LNR in Fife is also managed by the Scottish Wildlife Trust.

Heritage Lottery Funding was noted as being a possibility at both the Castle and Hightae Lochs LNR in Lochmaben and the Mull Head LNR in Orkney. The HLF bid at Lochmaben is for around £50,000 of environmental work at Castle Loch. In Orkney the proposed new interpretation centre is to be funded through HLF as part of a project called Viking Heaths.

The issue of **funding** is central to the achievement of future priorities. Five site managers noted that the funding is currently adequate although there are concerns for the future in particular in relation to Council cut backs. The key issue however is that of an overall staffing shortfall and an inability to carry out current maintenance and monitoring of sites as well as the achievement of future goals. At the Eden Estuary plans for managed realignment will require a *'seven figure sum'* and there are currently no resources for this. The site manager notes that before funding is made available fore realignment it is likely that further significant climatic impacts will have to be seen on adjacent areas.

Some site managers had ideas for **overcoming the barriers** of lack of finance and staff. One option was for the use of volunteers to carry out more work and for work to be done as unpaid overtime. However, at least two of the sites had innovative ideas for extra funding including the Eden Estuary where entering into partnership with landowners using agri-environment schemes is being considered. One site manager noted the need for administrative level changes such as the ring fencing of local authority access provision funds so that officers do not need to bid for this at local level. One further option is for the Scottish Executive to increase the funding for greenspaces in general based on their health benefits.

Key points raised by the site manager questionnaire responses

The site manager questionnaires identified a number of significant issues relating to the LNRs currently designated in Scotland. These are:

- *site designation is predominantly linked to environmental assets for example in the urban/rural fringe areas designation is related to protection in the Orkney rural area the reason for designation was for protection from agriculture. Community use of the site is a secondary consideration;*

- *management is for habitat and visitor but this is mostly undertaken independently of each other. Conflicts such as on waterbodies are mitigated through zoning as at Montrose Basin;*

- *there is a combination of both formal and informal monitoring which is mostly ranger based and with predominance of habitat/spp. monitoring over visitor monitoring;*

- *litter and vandalism are key urban and rural fringe issues, however island/rural LNRs have very different issues;*

- *the primary benefits include raising awareness, unlocking resources, protecting areas and formal education. Little or no contribution is identified to social inclusion and employment provision;*

- *sources of funding include that from the Council and SNH, often with links to other initiatives. Main barriers to achieving goals are funding and staff and there is a need for innovative ideas to overcome this.*

Policy officer questionnaire

Nine responses were received from local authority policy officers with responsibility for LNRs. These were:

- Aberdeen City;

- Aberdeenshire;

- East Ayrshire;

- East Renfrewshire;

- Falkirk;

- Fife;

- North Lanarkshire;

- Shetland; and

- Western Isles.

Of these, East Ayrshire, East Renfrewshire, Falkirk and Shetland do not currently have LNRS.

Responses from officers with LNRs

Local authority policy officers were asked what the **main reasons for sites being designated as LNRs**. Three stated the desire amongst the community for designation was an important factor. Other reasons noted were opportunities for improved management of the site, environmental education and protection of important species.

Each of the policy officers stated that at least part of the **funding to support sites as LNRs** had come from SNH. Funding also came from the respective local authorities for each of the LNRs. Funding was also gained from a wide range of other sources. These included local groups and organisations (eg Rotarty Club); private business sponsorship; local estates; enterprise companies; Lottery Funding; landfill tax credit; countryside trusts; European funding; and personal contributions. One response noted that funding was mostly gained for capital projects.

Only one of the officers felt that there was not **adequate funding to achieve the aims of the LNRs**. However, two respondents noted that although funding was 'adequate' at the moment, the addition of any

new LNRs could stretch resources. It was also noted in one response that *'there is always more room for more funding, particularly for staff to work with local communities'*.

Only one officer noted that they had **ideas for alternative funding** in their area. The sources were not identified but the response stated that there was only likely to be funding available for capital works, not revenue funding.

Each of the officers felt there were **benefits associated with LNRs in their areas**. The numbers of responses to each type of 'benefit' are shown in the table below.

	Major benefit	Minor benefit	No benefit	Not sure
Higher levels of awareness	4	1		
Opportunities for formal or informal education and research	4	1		
Better environmental management	3	2		
Help unlock resources	1	4		
Stimulate community pride	3	2		
Protect against development or other pressure	3	2		
Partnership working	4	1		

The responses show that there is a generally positive feeling amongst the officers that LNRs can play a positive role across a range of areas. The educational aspects and partnerships working seem to be the most positively perceived aspects of LNR designation. Unlocking resources is still regarded minor benefit by the majority of officers but it does not seem to be a prime benefit.

Other sites in the local authority area which are perceived to **deliver the same benefits as LNRs** included the three country parks in North Lanarkshire and 'most' of the 31 countryside sites around Aberdeen City.

Only the policy officer from Aberdeenshire stated that consideration was being given to **sites proposing other LNR in their area**. The sites were not named but the primary reasons for designation would be community involvement in schemes, opportunities for environmental education and the opportunity to better manage habitats.

One policy officer noted that it is *'Easy to suggest possible LNR sites but difficult to see how to implement them without new revenue funding'*. A lack of funding in terms of staff time, ongoing costs and ability to meet future costs were the main problems identified by respondents when asked why there were no plans to designate new LNRs. One respondent stated that there is a lack of 'practical or financial support from SNH' and another that there was *'no policy within the council'* for new designations.

Each of the respondents stated that LNRs are **reflected in wider policy for their area**. Each stated that LNRs are reflected in the structure and local plans for their area although the response from Fife stated that the reflection was *'patchy'*. Only one response noted that LNRs are reflected in another policy document – the LBAP.

There are a range of reasons for **why sites have been designated as other types of protected areas**. These reasons varied dependant on the location. The existence of other 'honey-pot' sites such as Country Parks which take up a lot of resources reduced the ability to designate other LNR sites in one area. It was also felt in some areas that there was not enough local/community interest to justify their designation. The fact that many potential sites were in private ownership was another reason for not designating sites. This often leads to sites being designated as SINCs to protect them through the planning process without the need for the time and investment required to designate sites as LNRs.

The thoughts on **how to overcome the barriers to designation** focused mainly on resourcing. The lack of funding for the long term management and maintenance of sites from SNH and other partner organisations was the key barrier identified. There were suggestions that guaranteed year on year grants could help to encourage more designation of sites.

One policy officer questioned if LNRs are '*fit for role*' in the 21st century. They felt that the balance between conservation and community value was a key difficulty and one that is not currently addressed properly, often leading to a downplaying of the importance of a site for conservation.

Responses from officers without LNRs

The four questionnaire responses which came from local authority areas without LNRs were East Ayrshire, East Renfrewshire, Falkirk and Shetland.

East Ayrshire has a site which should **soon be designated as an LNR**. A LNR committee has been established and management plans drawn up.

The same local authority site has three other potential LNR sites which have been identified. East Renfrewshire is in a similar position where a potential site has been identified but no further progress has been made.

The reasons **why no LNRs had been designated** in the areas varied in each response. The reasons included a lack of guidance, a lack of resources for staff and costs, the lack of a member of staff who would be responsible and a lack of political support for designation.

The response from Shetland Council states that LNRs are not **reflected in wider policies in the area**. LNRs are reflected in the development plans for the other areas and in the LBAP policy for Falkirk.

None of the local authorities had explicitly rejected LNRs as an option for designation. The policy officer from East Ayrshire felt the '*lack of clear guidance is the main reason for designation not being considered*'.

In East Ayrshire, the Country Park was designated in 1981 after it was gifted to the Council. Other areas owned by SWT have been designated as Wildlife Reserves. In East Renfrewshire a large number of sites are designated as SINCs to protect them through the planning process. The policy officer response states that '*… it would be impractical to designate all of these areas as LNRs*'.

It is felt that Country Parks provide the same benefits as LNRs in both East Ayrshire and East Renfrewshire[1]. The Country Parks will provide wider community benefit and educational opportunities.

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[1] The 'Country Park' in East Renfrewshire is a Countryside Leisure Project in the greenbelt between Barrhead, Darnley and Newton Mearns. It is likely to be called a 'Country Park' but this will be a working title and not a formal designation.

There has been no deliberate policy within any of the local authorities that took part in the survey not to designate LNRs. The lack of guidance about how to create an LNR was noted as a problem by one respondent and the others stated that it had generally been a lack of resources which had prevented it happening.

Key points raised by policy officer questionnaire responses

The Policy Officer questionnaires identified a number of significant issues relating to the LNRs currently designated in Scotland. These are:

- *the key driver behind designation needs to be community support – this is quite often not present in locations which would otherwise be suitable candidate LNRs;*

- *the resources needed to designate sites and maintain them for the long term are often not there. This particularly relates to council officer time and revenue funding – capital funding is often available from a wide range of sources;*

- *the benefits associated with LNRs are varied and significant, particularly for their educational value and the partnerships their management forges. However, it was felt that other designated sites such as Country Parks could fulfil the same role as an LNR in terms of education and community involvement;*

- *designations such as SINCs can be used as a policy tool to protect areas through the planning process without using scarce resources to designate LNRs. This is particularly true for sites which lie on private land;*

- *there are a wide range of reasons why more sites have not been designated – particularly in relation to funding. However, there has not been a deliberate attempt to avoid designating suitable sites.*

SNH officer questionnaire

Nine responses were received from SNH Area officers representing:

- Angus and Dundee;

- Dumfries and Galloway;

- East Lothian;

- Inverclyde, Renfrewshire and East Renfrewshire;

- Lewis and Harris;

- Lothians;

- North Ayrshire;

- North Highland;

- Strathclyde and Ayrshire.

Of these areas, all had at least one LNR at present, with the exception of North Highland were there are none designated.

SNH Area Officers were asked to explain their **involvement in LNRs**. The area officers generally participate in management partnerships and represent SNH within the process. Most also provide practical advice on management planning, grant applications, biodiversity improvements and interpretation. All are working with other partners, including the community to achieve this. One Area Officer particularly noted his role in advising the local authority. Other regional level Area Officers took a more strategic perspective, overseeing the management of several LNRs within their area.

Most of the respondents appear to be comfortable with this role and would not like it to **change in the future**. Others would like to reduce their 'hands on' commitments, by acting in an advisory role, as opposed to actively producing interpretive materials or sitting on steering groups. One would be keen to expand his role by advising other LNRs which come forward in the future in the area. The North Highland Area Officer currently has no LNRs within his area, and noted that SNH do not currently have sufficient staff or resources to get involved in any which come forward.

SNH Area Officers recognised the twofold **objectives of LNRs** and generally felt that LNRs helped to deliver SNH objectives relating to wildlife conservation and introducing people to nature/education. Other objectives mentioned included greenspace and promoting access to greenspace, promoting sustainable use, enhancing biodiversity, good quality access enriching people's lives and involving communities. Within the responses, there was a suggestion that some LNRs contribute more or less to some of these objectives, with the Western Isles for example, aiming to achieve environmental education in the future (the LNR in this area has only relatively recently been designated.

Most of the respondents agreed that **LNRs can play a role where natural heritage interest is currently limited**. As one officer put it: "*if it gets people involved and thinking about conservation issues and improves the local environment, especially if [this is] through habitat creation, the area becomes a valuable resource for the local biodiversity.*" Some felt that unless there was scope for natural heritage enhancement, an alternative strategy may be more appropriate – eg greenspace project could deliver the same benefits. One Area Officer pointed out that LNRs should focus on local level qualities, and that in any given area there are likely to be features of interest. The example of an LNR in Edinburgh was mentioned, as one where a disused railway siding had been actively managed to create a more diverse and valuable environment. The Lothians Area Officer noted that whilst the site's biodiversity will never be its primary strength, it does provide other benefits and works well within its context. Some respondents conversely argued that LNR designation should be largely driven by the environmental qualities of an area.

Respondents were asked about **general levels of awareness of LNRs amongst policy makers that SNH policy is for people to have access to LNRs**. In Edinburgh, this is recognised and actively supported by the establishment of several 'friends of …' groups to lead community participation in their management. However, this was compared to the case of Aberlady Bay where access is not actively promoted due to the environmental sensitivities of breeding and wintering bird populations. This was viewed as an 'atypical' example of an LNR and the area officer noted that, regardless of LNR provisions, people are generally aware of their rights to take access as a result of the Land Reform (Scotland) Act 2003.

In the case of Lewis and Harris, it was reported that there was indeed a good level of awareness as the designation has emphasised the importance of involving communities in the management of the site. In Inverclyde, again, it was felt that policy makers also recognised this. In Dumfries and Galloway, this is also recognised, with policy makers seeking to balance access with nature conservation. However, in North Ayrshire the Area Officer was less convinced of levels of awareness of SNH policies generally amongst local decision makers. Despite this, those Area Officers with responsibility for LNRs are generally aware of SNH's support for them and its interest in achieving more designations. In North Highland, where there are currently no LNRs, levels of awareness (of LNRs generally and of SNH policy relating to them) were thought to be very low.

The questionnaire asked respondents whether **SNH should be more actively promoting the Guidance on LNRs**. One Area Officer felt that this would make little difference to the level of designation. Several respondents were very positive about this, stating that the guidance should be recognised as a valuable tool. The North Ayrshire Area Officer felt that it would be useful to promote the guidance, as although local authority partners may be aware of LNRs, they may not know about the guidance that is available to support the management process. Others, however, felt that as awareness was already high, and scope for additional political support amongst local authorities was low, it may not be particularly helpful. The Dumfries Area Officer suggested raising awareness of the guidance amongst community groups, as opposed to councils, to maximise its use and benefits. One Area Officer suggested that whilst such promotion might be helpful, the desire to designate LNRs should come from within local authorities themselves, as opposed to being driven by SNH.

One Area Officer pointed out that SNH has not actively promoted the guidance through a significant programme of events, training or by allocating sufficient resources to help achieve this. He felt that whilst the network is a good idea, it could be usefully linked with the Country Parks network. National guidance focuses SNH staff on agreeing designations at appropriate sites and developing management plans for them, as opposed to providing wider or ongoing support to local authorities on sites which are unlikely to be designated, or considering long term management of existing sites.

Area Officers were asked to describe the **level of priority** which should be attached to designating additional LNRs within their area. In the more urban areas such as Strathclyde, Edinburgh and Inverclyde, this was seen as being medium to high, partly due to development pressure and the need for high quality greenspace close to where people live, and also due to other commitments having precedence (providing grants and meeting statutory commitments). Conversely, in North Highland, East Lothian, Lewis and Harris, this was seen as being a medium or low priority, partly due to the quality of the environment and relatively low population densities, but also as a result of a high level of other natural heritage designations. Several Area Officers felt that additional designations should be a low priority, due to a lack of political support for this type of site, including within the Lothians and Angus. In North Ayrshire it was regarded as a high priority as a result of there only being one at present within the area – however there has been difficulty in identifying additional sites which would be suitable to take forward.

The responses were divided when asked **whether further LNR designations would provide additional benefits to SNH**. Several Area Officers felt that this would be useful as LNRs deliver something which other sites cannot – primarily active community involvement in their management. The scope for better management provided by LNR status was also considered an incentive to designation.

One Area Officer suggested that the combination of community involvement and nature conservation was unique to LNRs and several others focused on community involvement as a key incentive for designating additional LNRs. Another felt that LNRs work particularly well within urban areas. Whilst one Area Officer suggested that country parks provide a similar function for those living close to them, another pointed out that communities tend not to be actively involved in managing country parks, and few have been coming forward for designation in recent years in any case. In addition, whilst one Area Officer felt that other nature conservation sites provided the same benefits, another noted that wildlife sites tend to be less well protected and of specialist nature conservation interest, as opposed to being more widely valued. Another Area Officer felt that it was important not to 'dilute' efforts by duplicating LBAP activities and greenspace projects with LNRs. In East Lothian it was noted that local authorities might be interested in identifying further LNRs if it was perceived to open up additional opportunities for funding.

SNH Area Officers were asked to explain their ongoing relationships with local authorities, including whether they were already in **discussion about designating additional LNRs**, or whether they had future plans to promote additional designations over the next year. Interestingly, of the respondents who were in ongoing discussion about designating additional LNRs, most tended to do this on a reactive as opposed to proactive basis, with the exception of Angus and Dundee where SNH initiated discussions. Some areas reported long term discussions having been initiated by community groups or from the local authority ranger service, and encouraged by SNH. In Lewis and Harris and Edinburgh the Area Officers felt that the growth in awareness of LNRs may prompt further proposals for designation. It also appears from the responses that, where discussions are taking place, they are site specific as opposed to wider or more strategic assessments of the overall supply of LNRs.

In Dumfries and Galloway, SNH is focusing on re-establishing the declaration for Castle and Hightae Lochs, before taking forward additional LNR proposals. Two further respondents stated that they were not currently in discussion with local authorities about further LNRs, and had no plans to do so in the future.

The questionnaire then asked respondents about **resourcing** for LNRs – including whether they feel there are sufficient resources available to support LNR activities, and if they knew of any 'novel' sources of funding. Many of the respondents replied that there are currently insufficient resources, and that they are unaware of additional or novel sources of support (Angus and Dundee, East Lothian, North Highland, North Ayrshire). In Lothian it was reported that they are generally able to meet the funding needs of LNRs through grant allocations, whilst in Dumfries and Galloway, it was reported that there is sufficient funding available to support existing LNRs, but that any additional designations would 'stretch resources.'

Inverclyde and Lewis and Harris provided more positive responses. In Inverclyde, although funding has generally been available, it has tended to come from ad hoc sources and be quite fragmented. The Area Officer suggested that ways in which more reliable maintenance funding streams could be established for LNRs could be considered, like those, for example, which exist for other resources like community halls. She also reported that in Inverclyde support for an LNR has been gained via the justice system with management and maintenance being undertaken as part of the community service programme.

In Lewis and Harris, there is currently enough funding to support the LNR, and they are looking into generating income through the sale of a card or postcard designed by a local artist.

The Strathclyde and Ayrshire Area Officers felt that there are sufficient resources available for management, but not for maintenance, as this tends not to be supported by grant funding organisations. This has been exacerbated by the lack of ring fenced funding from the Scottish Executive to support access works, as local authorities have generally used this to support other services. However, it was also noted that sources of support include the inputs of volunteers and although this is helpful, it is cannot overcome current problems on its own.

The final question asked respondents to identify the **main barriers** to more LNRs being designated in each area. Key issues raised were as follows:

- concerns about resources, with councils being reluctant to add commitments to their parks maintenance budgets in a time of increasing priorities and decreasing funding. Maintenance funding requirements were raised by several respondents as a key barrier. As one SNH officer put it "*… there is no advantage to Local Authorities that I can see in designating LNRs. As matters stand they would be a drain on LA resources with no corresponding benefit.*"

- lack of community motivation, support, knowledge and interest in the natural heritage. In addition, in some areas a key barrier appears to be lack of political support from within local authorities as a result of general resistance to further designations.

- in rural areas, the high quality environment which surrounds communities appears to reduce the need for LNR type projects. The responses appeared to reflect a higher level of motivation to achieve more designations within urban as opposed to rural areas. More generally, finding suitable sites was felt to be a barrier by one respondent.

- costs involved in drawing up legal agreements to achieve designation. In addition, there are perceptions that LNRs generate '*a significant amount of paperwork and bureaucracy, when the objectives are already being achieved in a different way.*' Land tenure issues were also raised, partly because local authorities need to control the area to allow for declaration.

- concerns about liabilities and insurance claims by users, particularly if the management includes construction or other works.

The Strathclyde and Ayrshire officer questioned why high levels of designation had taken place between 1992 and 2000, and why other sites have been in discussion for many years but have not progressed to designation.

Key points raised by the SNH questionnaire responses

The responses identified a number of key problems and issues which would need to be addressed if additional LNR designations were to be achieved:

- SNH Area Officers have **concerns about the level of resourcing** available for LNRs. Whilst there are some examples of good practice, there is clearly a need to address a deficit in maintenance funding if local authorities are to be encouraged to take forward additional LNRs. They are generally seen as a burden, as opposed to something which provides opportunities to generate resources. In many areas, although there enough resources available to meet the needs of current LNRs, it is assumed that there would not be for any further designations.

- SNH Area Officers appear to be somewhat **reserved about their role in achieving further LNR designations or in managing existing LNRs**. Overall, the responses showed that they feel that local authorities and/or community groups need to be the key driver, and that SNH can only advise on the process, as opposed to leading it themselves. Furthermore, whilst the Area Officers are generally involved in management by participating in partnership working, in some cases they feel they should withdraw from the process a bit more. This might reflect worries that they are taking on too much responsibility for LNRs themselves.

- in areas where there has been little political support for LNRs, the Area Officers appear to think that there is little point in trying to stimulate further interest. In other words, the **policy and political barrier appears to be relatively intractable** in these local authority areas.

- overall, there appears to have been **a shift in the way in which LNRs are perceived in rural and urban areas**. In the former, they are viewed with scepticism and considered less beneficial (partly due to high levels of environmental designations already existing), whilst in the latter they seem to be considered more of an asset, and viewed in more positive and imaginative terms (including through resourcing and in terms of the value of the environmental features which could justify designation).

User group questionnaire

There were a small number of user group responses and these related to the following LNRs:

- Castle and Hightae Lochs;

- Wigtown Bay;

- Birnie and Gaddon Lochs;

- Eden Estuary;

- Jenny's Well;

- Paisley Moss.

A total of nine responses were received from a range of groups including Renfrewshire Ranger Service (through their key role in community involvement), a Further Education college, and several individuals with an interest in Castle and Hightae Lochs LNR. There was also a response from RSPB Scotland in relation to Castle and Hightae Lochs and Wigtown Bay. User groups were asked to identify which LNRs they visit regularly, and why, including the specific benefits that the sites provide.

In general it appears that smaller sites are used for **general relaxation** and **informal recreation** more than the larger sites. However all sites seemed to provide opportunities for **wildlife watching**. Eden Estuary and Birnie and Gaddon Lochs in Fife were noted for their **education** benefits by a local FE college. Renfrewshire Council Ranger Service noted that sites are used for a range of activities such as visits by organised groups and public events such as guided walks, conservation tasks and children's activities.

User groups outlined several **concerns about wildlife** on the sites, especially in relation to intrusion by visitors. It was noted that Wigtown Bay is used heavily for shooting which is not well monitored. At Castle Loch it is outlined that some of the wildlife is sensitive to intrusion at particular times in the season where the water edge is close to public areas. It is thought that a plan to extend the woodland path may result in more dog walkers and cyclists in this area which will be detrimental to the waterfowl.

In terms of **community involvement in decision making** the majority of respondents highlighted involvement with the relevant Management Committee or group. In two of the cases, where respondents were not formally involved, discussions with the local rangers took place allowing them to put forward their opinions. Renfrewshire Ranger Service noted that there is a need for more partnership working with landowners and those in the management committee.

There was a mixed response to the question of **awareness of the LNR within the community**. At Castle and Hightae Lochs LNR actual use of the lochs for fishing and yachting is good, however better access is needed on land. The site itself is easily accessible from the M74 however there is a need for more promotion of the site along this route. Overall there is a general feeling that more user groups could use the LNRs, however two respondents mentioned the fact that high numbers of visitors may defeat the purpose of these wildlife sites. The Renfrewshire Council Ranger Service note that at Paisley Moss more people who work at the airport could use the site for walking, however too many visitors may be detrimental as the moss is a sensitive site.

A number of respondents highlighted that they **use other sites for similar purposes as the LNRs**. These sites include community woodlands, Forestry Commission woodland, National Nature Reserves and RSPB reserves. In terms of identifying possible other sites for LNR designation it was highlighted that in Dumfries and Galloway major areas are already managed by other organisations such as the RSPB, WWT, SWT, NTS and local groups. However the following sites were mentioned by respondents as possible areas for LNRs:

- Durrockstock Park in Foxbar, Paisley;

- Loch Ryan, Loch Ken and Milton Loch, Dumfries and Galloway.

Six respondents provided feedback on the issue of **resources and funding** and the primary message was that further funding would be welcomed and that the responsibility for this should be with the local authority. It was noted that at Castle and Hightae Lochs LNR resources for development are dictated by the management restrictions for the SSSI. Comments relating to ideas for alternative sources of funding included:

- '*local businesses should be given incentives to support and fund the management and conservation of LNRs (and other greenspace designations)*';

- '*HLF although this wont pay for revenue*';

- '*joint actions necessary to fund improvements but there can be tensions amongst parties and this is a restriction to progress*'.

Concerns about the future of LNRs were mentioned by four respondents. Their views highlighted the need for more awareness within Councils to maintain the profile of LNRs, linked to the fear that LNRs may suffer financial neglect in comparison with more '*prestigious designations*'. In addition the need for a careful balance between wildlife haven and public access and enjoyment was reiterated.

Key issues from user group questionnaire

- emphasis on quiet relaxation, wildlife watching;

- concern over too many visitors – conflict between visitors and wildlife;

- partnership working key to achieve more benefits but difficult to achieve in practice.

The findings from each of these questionnaires have been incorporated into the strategic level evaluation.

Appendix 4 Focus group discussion – note

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LNR Focus Group Meeting Battleby – 22 December 2005

In attendance, representatives from:

LUC

SNH

Fife Council (6 LNRs – Birnie and Gaddon Lochs, Coul Den, Cullalloe, Dalbeath Marsh, Eden Estuary, Torry Bay)

Stirling Council (1 LNR – Balquiderrock Wood)

Glasgow City Council (2 LNRs – Bishop Loch, Hogganfield Park)

Introduction

The purpose of the focus group was to provide a deeper level of understanding as to the issues behind the relatively low number of LNRs designated in Scotland. Although there was only a small number of stakeholders involved in the discussion in-depth feedback was gained about the position of each Council present. The main points of which are outlined below and cover the following topics:

- impetus for designation;

- integration with other agendas/designations;

- community involvement;

- funding.

Impetus for LNR designation

The overall impetus for LNR designation varied between each Council present, these included:

- Glasgow City Council – review of City Plan;

- Fife – from Structure Plan in 1998 which spurred a programme of phased LNR designation;

- Stirling – reluctance to designate LNRs as many of the sites are either already owned by the Council or designated as SINCs – keen only to secure LNR status for sites which are privately owned to allow some degree of protection and management control. More emphasis on the development of greenspace network – fewer perceived benefits associated with LNRs.

It appeared that in each case LNR designation was taken forward by the planning department however this may not be the norm and appears to depend on the integration of biodiversity with planning. These findings underline the fact that there is no common framework for LNR designation and that each Council carries this out independently this may be a contributing factor to the low number of LNRs in Scotland linked to an overall low level of awareness about the designation.

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Integration with other agendas/designations

It was noted that the most recent prominence of LNRs came firstly from the LBAP agenda in the 1990s and is now also part of the greenspace/openspace agenda and this is reflected in the varying priority given to LNRs within each Council. In Fife there is a stand alone LNR working group, however in Stirling there is only a greenspace/openspace working group with the future potential to add LNRs to this.

The cross over with LNRs and other designations such as SSSIs was also raised. In some cases SSSI designation was thought to be adequate on its own however Fife Council emphasised the added value of LNRs in that they are a management tool unlike SSSIs.

Community involvement

In both Glasgow and Fife it is the case that potential LNR sites were taken forward firstly by both Councils and then the local community became involved. It is acknowledged that there would be benefit in a more bottom-up approach however it is difficult to know how to achieve this. There is the potential to work with other initiatives such as Greenspace projects which already have community contacts in their ongoing projects. In Stirling there are a number of sites with 'Friends of' groups following from the Community Futures programme and community action days on greenspace.

Funding

In Glasgow funding for LNRs comes from the Council only, however in Fife the aim is to encourage communities to become involved in order to provide possible lottery funding. In Stirling the SNH Woodlands in and Around Towns (WIAT) grant provides for their only LNR. The issue of a lack of maintenance funding was raised as a general barrier to further LNR designation since this cannot be covered by any grant from SNH and must come from Council funding.

A further key concern relating to funding is proposed or potential LNRs that a Council does not currently own as there are significant costs associated with purchase, designation, establishing a management committee and facilitating community involvement. This can stretch already limited Council resources and therefore a more pragmatic approach would be to designate Council owned sites for potential *'easy wins'*.

It was also noted that if funding is more forthcoming then Councils could be encouraged to identify sites that already meet the LNR criteria and are already Council managed and this would increase the overall number of LNRs. It is thought that this in turn would raise the profile of LNRs and have an overall positive effect.

Other general points from the discussion

- perceived lack of support from SNH officers combined with a perception that this can result in a barrier to gaining SNH funding for particular sites;

- lack of clarity regarding management plans can sometimes be a barrier to designation and securing wider benefits.

Conclusions

- council structure has a large influence on LNR designation – there can be administrative problems as one department may designate an LNR whilst another manages it;

- need to identify whose role it is to champion LNRs – either LBAP Officers, Planning Departments, or SNH officers on Greenspace /Openspace Working Groups;

- LNRs seen as a subset of greenspace and there is the opportunity to increase the profile of LNRs through the greenspace agenda. Greenspace audits and strategies could provide a framework for identifying greenspaces that would be appropriate for LNR designation and could also help in developing partnerships to assist in funding and management;

- LNRs seen as an important part of LBAPs and the Scottish Biodiversity Action Plan as well as the implementation of the Nature Conservation (Scotland) Act. There is a role for the LBAP network in promoting LNRs;

- there is no common framework for identifying LNRs, each Council carries this out independently;

- there is a need to link to more informal projects which currently provide the benefits of LNRs without the formal LNR designation.