



Scottish Natural Heritage

Linlithgow Loch Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 939

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Purpose



This is a public statement prepared by SNH for owners and occupiers of the SSSI. It outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced. This Statement does not affect or form part of the statutory notification and does not remove the need to apply for consent for operations requiring consent.

We welcome your views on this statement.

Description of the site

Linlithgow Loch Site of Special Scientific Interest (SSSI) is situated on the northern edge of Linlithgow, south of the M9 motorway. It lies at an altitude of 48 metres above sea level, has a surface area of 40.6 ha, a perimeter of 3.4 km, a mean depth of 2.3 m and a maximum depth of 8.2 m (GB Lakes Database).

Site interests – open water

Originally notified as the only example of a lowland mesotrophic loch in West Lothian (a mesotrophic loch is one which has medium nutrient levels, neither highly enriched nor nutrient deficient). When the site was surveyed by the SNH Loch Survey in 1997 only two species of *Potamogeton* pondweed were recorded (*P. pectinatus*, *P. pusillus*), together with northern water-starwort, Canadian pondweed, lesser duckweed, spiked water-milfoil (*Myriophyllum spicatum*), horned pondweed (*Zannichellia palustris*) and delicate stonewort (*Chara virgata*¹). The site was therefore assessed to be an example of a Type 10 (Palmer et al., 1992¹) eutrophic loch (nutrient rich).

Site condition monitoring of the loch in 2004 concluded that the Loch was in unfavourable condition due to nutrient enrichment principally arising from agricultural and urban land uses within the loch's catchment. Monitoring was conducted using targets for mesotrophic loch although, as detailed above, subsequent investigation of water quality shows that the Loch is in fact eutrophic, trending towards hyper-eutrophic. The previous site condition monitoring may therefore be showing the Loch as being in a more unfavourable condition than is actually the case.

Other interests – birds

The Loch is considered to be regionally important for the number of birds it supports. Breeding

¹ Palmer, M. A., Bell, S. L. and Butterfield, I. (1992). A botanical classification of standing waters in Great Britain: applications for conservation and monitoring. *Aquatic Conservation: Marine and Freshwater Ecosystems*. 2, 125-143.

birds of particular interest are great crested grebe and mute swan, which are both uncommon in West Lothian. There are also large winter flocks of mallard, coot, tufted duck and pochard. The breeding bird assemblage was recorded as unfavourable and declining at the time of the last Site Condition Monitoring assessment in 2003. This was attributed to both disturbance from users of the Loch and to the changing nutrient status towards an increasingly eutrophic loch. It is unlikely that the Loch has ever met qualifying thresholds for this feature and, on the basis of current monitoring results, the breeding bird assemblage is no longer included as a feature of the site. The Loch does however remain an important local site for waterfowl.

Natural features of Linlithgow Loch SSSI	Condition of feature (and date monitored)
Eutrophic loch	Unfavourable Declining(August 2004) nb. feature monitored was mesotrophic loch.

Mute swan	West end of loch with reed beds
	

Past and present management

The SSSI forms part of the landownership of Historic Scotland (HS) and is currently used for recreational purposes including angling and sailing. Private properties at the east end of the loch extend partly into the site although public access is unrestricted along the lochside path.

Linlithgow Loch Users Advisory Committee was established to provide a forum for discussion between the different user groups in the interests of avoiding conflict. Management issues including minimising disturbance to breeding birds, control of algal blooms and improving the Loch's water quality are addressed by the Advisory Committee.

In addition, a Catchment Management Group has been formed from key stakeholders including SNH, Scottish Environment Protection Agency (SEPA), HS and West Lothian Council.

Objectives for Management (and key factors influencing the condition of natural features)

We **wish** to work with the owner to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims to carry out site survey, monitoring and research as appropriate to increase our knowledge and understanding of the site and its natural features and monitor the effectiveness of the management agreement.

1. To maintain and enhance Linlithgow Loch and the botanical and ornithological interests it supports.

In addition to SNH's own Site Condition Monitoring programme, the Linlithgow Loch Catchment Management Group will co-ordinate collection and collation of information on the

loch's hydrology and water quality. Data gathered will then be used to inform any necessary changes to management of the site.

Other factors affecting the natural features of the site

Linlithgow Loch's catchment includes a high proportion of developed land, including the settlement of Linlithgow which is immediately to the south. This developed land is considered to contribute most of the runoff to the loch, although it is likely that a negative effect on the water quality is unlikely to be caused by the quality of the runoff alone but more likely by quantity. The Loch has a single outflow that is often silted up, leading to less effective drainage of the loch, with a resultant water level rise and associated flooding of footpaths.

A result of these factors, coupled with the loch's already complex hydrology means that effective catchment management is difficult to achieve with co-ordination between a large number of interest groups. The Catchment Management Group and Users Advisory Committee are first steps towards this process.