



Current factors causing loss or decline

As with all wetland habitats the major threats to the habitat have been from agricultural improvements and development pressures. In the case of swamps, people have often viewed them as waste ground and, therefore, they have often been used for infilling activities and subsequently built upon. Drainage, water abstraction and the canalisation of adjacent watercourses have all had their effects, reducing and fragmenting these habitats and so making them more vulnerable to disturbance and further loss. Some swamps need to be managed otherwise they will fill up with leaf litter and organic matter and dry out, eventually developing into scrub and woodland.

Current action

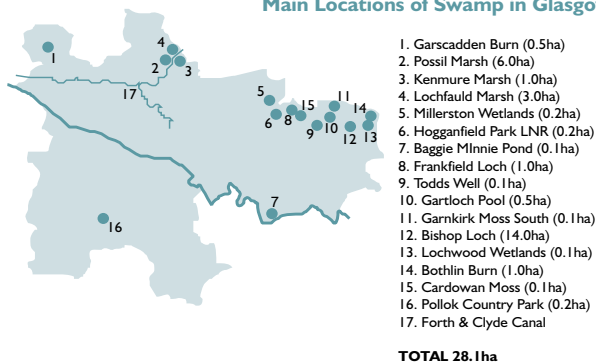
Most of the swamps within the City occur within SSSIs (e.g. Possil Marsh and Bishop Loch) or in City-wide Sites of Importance for Nature Conservation (SINCs), where there is a presumption against development that would adversely affect the habitat.

Recent wetland creation projects, such as at Hogganfield Park LNR, Cardowan Moss and smaller park ponds, are helping to increase the occurrence of swamp and associate habitats within the City.

Current status

Swamps are areas of vegetation where the water level is at least 20 cm above the surface for most of the year; it can occur on a wide range of substrates. Typically they are characterised by the domination of species poor, tall emergent plants, namely several tall sedges, Reedmace, Bulrush, Reed Sweet-grass and Reed Canary-grass. Frequently occurring with fen, this habitat can contain many of the same species and indeed may grade into fen as the water table lowers; typically swamp habitats are often found in the transitional zone between fen and open water

Main Locations of Swamp in Glasgow



Different swamp vegetation types occur at a number of sites forming mosaics as the water table varies in height above an undulating surface or the water depth increases towards the open water. Such mosaics are frequently seen around Glasgow, for example, at Bishop Loch, Possil Marsh, Lochfauld Marsh and Kenmure Marsh.

A number of swamp vegetation types are recognised in Britain with about 13 occurring in the Glasgow area, these include:

Enriched Water:

- **Reed Sweet-grass:** pure stands of nutrient rich deep water, very common to the canal edge.
- **Reedmace:** local stands at wetland sites and a good colonist at smaller, often urban, sites.
- **Branched Bur-reed:** deep water of ditches, water course margins and farm ponds.
- **Spike-rush:** deep water to water body margins, ditches and ponds.
- **Reed Canary-grass:** species poor stands at summer dry swamps and along riverbanks.
- **Common Reed:** forming very tall, mostly species poor stands in deep water (see separate HAP).

Mesotrophic Water:

- **Lesser Pond-sedge:** local stands, some partly shaded, at a few local sites.
- **Bulrush:** tall stands in very deep water; only at a few sites.
- **Bottle Sedge:** common dominant at a number of sites, frequently grading to fen and marsh.
- **Water Sedge:** a number of species poor, local stands occur.
- **Water Horsetail:** open water margins, farm ponds and ditch margins; usually deep water.

Objectives and targets

Swamps are features, albeit often small, at a number of wetlands sites and represent locally important additional diversity. A key aim is to preserve the remaining sites and to investigate opportunities for new creation. Management plans for the main wetland sites will help to recognise the role of swamps within the larger habitat mosaics. Further wetland creation projects could be an important source of new sites.

Objective 1: Ensure no net loss in areas of identified swamp within the City.

Target 1: Retain all existing areas of swamp.

Objective 2: Establish area, range and quality of all swamps within the City.

Target 2: Re-survey main swamp areas and identify key sites by 2005.

Objective 3: Ensure suitable management to promote long term viability of key swamps.

Target 3: Establish existing management and investigate ideal regimes of key swamps.

Objective 4: Increase the total area of swamp within the City.

Target 4: Create new swamps as part of wetland creation schemes.

Proposed Action with Lead Authorities

Action	Lead	Delivery	Objective
Policy and Legislation			
Ensure the importance of swamps is recognised in Local Plans and Policy Guidelines.	GCC-LS(CG)	GCC-DRS, SNH	1
Seek to ensure Policy Planning Guidelines include adequate protection policies for water levels and quality.	GCC-LS(CG)	GCC-DRS, SEPA	1, 3
Site Safeguard and Management			
Oppose, or propose alternatives to, development applications for land use, which will damage or destroy areas of swamp.	GCC-LS(CG)	GCC-DRS, SEPA, SNH	1
Encourage landowners and farmers to implement sympathetic management of swamps.	GCC-LS(CG)	FWAG, GCC-LS, SNH, SWT	3
Encourage the inclusion of new swamps at urban or agricultural wetland mosaic creation schemes.	GCC-LS(CG)	FWAG, GCC-LS(CG), GfC, SEPA, SNH	4
Advisory			
Provide guidance on swamp management.	GCC-LS(CG)	FWAG, GCC-LS, SNH	3
Future Research and Monitoring			
Survey main swamp sites to assess vegetation and condition.	GCC-LS(CG)	GCC-LS(CG), SNH	2
Seek to carry out hydrological and/or water quality surveys at key sites where possible.	GCC-LS(CG)	SEPA	1, 3
Communication and Publicity			
Encourage awareness and appreciation of swamp habitat.	GCC-LS(CG)	GCC-LS(CRS), SNH	1, 2, 4
Review progress of plan and actions by 2006.	GCC-LS(CG)	GCC-LS(CG)	1, 2, 3, 4

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Glasgow City Council: Culture and Leisure Services (**GCC-CLS**), Glasgow City Council: Education Services (**GCC-ES**), Glasgow City Council: Land Services Countryside Ranger Service (**GCC-LS(CRS)**),

Scottish Ornithologists' Club (**SOC**), Greenspace for Communities(**GfC**), British Waterways (**BW**), Forestry Commission (**FC**), Farming Wildlife Advisory Group (**FWAG**), The WISE Group (**TWISE**)

Glasgow Natural History Society (**GNHS**), Royal Society for the Protection of Birds (**RSPB**), Scottish Environment Protection Agency (**SEPA**), Scottish Natural Heritage (**SNH**), Scottish Wildlife Trust (**SWT**).

Clyde Amphibian and Reptile Group (**CARG**), Butterfly Conservation (**BC**), Concern for Swifts (**CfS**)