



Greenlee Lough © NBP Photographer John Williamson



Ponds, Lakes & Reservoirs Habitat Action Plan

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Description

There are a wide range of waterbodies in Northumberland; some formed naturally and some intentionally or otherwise, by human activity. Waters in Northumberland vary in size from ponds a metre or two across to the 1112ha Kielder Water, and often occur in association with other important wetland habitats such as marshy grassland, fen, reedbed and wet 'carr' woodland. This action plan excludes saline lagoons which are covered by a separate plan.

Natural ponds occur in depressions created by glacial action or the action of rivers. Subsidence of land as a result of mining activities has created over 100 ponds in the south east of the county, and some have been intentionally created as an afteruse of minerals workings. Others have been created over the centuries by farmers and landowners for watering stock, shooting or fishing. Ponds are defined here as small water bodies between 1m sq and 2ha in area. Anything larger than 2ha is termed to be a lake.

Reservoirs by definition are artificially created water bodies, some of which enclose a very large area of water. Over three quarters of the area of standing open water in Northumberland occurs in the form of reservoirs. Larger water bodies are noted for their wildfowl, providing important feeding & roosting sites.

Standing open waters are classified according to their nutrient status; eutrophic (nutrient-rich) waters predominate in the lowlands, where their nutrient status is often artificially increased by agricultural fertilizers, while oligotrophic (nutrient-poor) waters occur in the uplands. Mesotrophic waters have intermediate nutrient levels. They are relatively uncommon; occurring in the upland fringes of northern and western Britain, and can support the highest diversity of plants and animals of any waters. Dystrophic waters are acidic and peaty, and occur uncommonly in the uplands. It is proposed that the Environment Agency, Natural England and their counterparts

elsewhere in the UK devise a 3 tier classification for such waterbodies, based on the criteria of naturalness, biodiversity and restoration potential. This will help to identify the most important sites, so that conservation resources can be allocated accordingly.

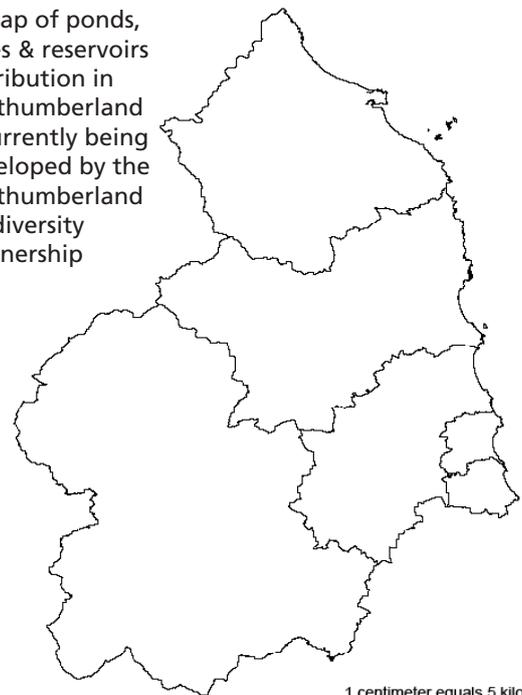
In addition to permanent waterbodies, ponds which seasonally or temporarily dry out are important for a variety of species of conservation concern. Particularly plants that rely on exposed mud for germination and the great crested newt, as drying out prevents fish colonisation of the water bodies.

Conservation Status

UK Biodiversity Action Plan Habitat – mesotrophic lakes, ponds, oligotrophic & dystrophic lakes
Individual ponds, lakes and reservoirs in Northumberland are covered by various site designations

Current Extent in Northumberland

A map of ponds, lakes & reservoirs distribution in Northumberland is currently being developed by the Northumberland Biodiversity Partnership



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There is approximately 2290 ha of standing open water in Northumberland, of which 1724 ha (76%) is accounted for by reservoirs, and 560 ha by ponds and lakes. Nationally, ponds have declined in number by about 75% over the past century, but losses in Northumberland have been offset, at least to some extent, by the formation of mining subsidence ponds. Lowland ponds and lakes, which are generally eutrophic in character, are important for invertebrates such as dragonflies and diving beetles, amphibians such as great crested newt, birds such as little grebe, and a wide range of plants. Crag, Broomlee and Greenlee Loughs, which total 66 ha in extent, together form the main resource of mesotrophic lakes in Northumberland. They are of particular importance for their aquatic plant communities, particularly stoneworts and pondweeds, and for wintering wildfowl. Wintering wildfowl also occur in significant numbers on reservoirs, where the uncommon needle and northern spike-rushes can be found in the drawdown zones. Approximately 7 ha of dystrophic standing waters occur in the National Park.

Current Factors Causing Loss or Decline

- Nutrient enrichment
- Excessive fish stocking
- Disturbance from recreation
- Overgrazing of marginal vegetation
- Pollution from urban rainwater runoff, illegal dumping of rubbish, minewater or agricultural chemicals
- Introduced native and non-native invasive species
- Direct loss of water bodies to agriculture and development through infilling or drainage
- Acidification from felling of coniferous woodland adjacent to waterbodies
- Neglect or lack of management
- Intensive use of surrounding land leading to loss of semi-natural habitat
- Lowering of water tables from drainage, abstraction, flood protection or drought causing drying out of sites
- Conversion of ponds to fisheries
- Over zealous vegetation clearance

Associated Action Plans

Water Vole
 Otters
 Bats
 Great Crested Newt
 Upland Waders
 Coastal Birds
 Farmland Birds
 Violet Crystalwort

Further Information

This ponds, lakes and reservoirs action plan links to the mesotrophic lakes, ponds, oligotrophic & dystrophic lakes UK BAP action plans.

Targets

Maintain the current number of ponds in Northumberland by 2015

Increase the number of ponds in Northumberland by 50 by 2015

Maintain the current extent of lakes and reservoirs in Northumberland by 2015

Code	Priority Actions	Date
PLR A01	Identify the locations of the current pond resource	2008
PLR A02	Identify priority areas for the creation of new ponds, increasing the linkages between existing groups of isolated ponds	2008
PLR A03	Encourage the creation of ponds through landscaping and mitigation of development schemes	ongoing
PLR A04	Continue the standing water characterisation project to determine the chemical and macrophyte status of lakes and reservoirs	2008
PLR A05	Create site action plans for those lakes and reservoirs that require enhancement of water quality and nutrient standards to restore to favourable condition	2009
PLR A06	Raise awareness of problems associated with non-native invasive species and encourage their control by riparian owners and other interested parties	2009
PLR A07	Review the ponds, lakes and reservoirs action plan once the characterisation data is available	2010