REF.	ACTIONS	PARTNERS (lead partners in bold)
20.1	**Complete and join up ongoing wetlands inventories and ensure data are shared with all relevant parties.**	**RSPB / SEPA**
20.2	**Maintain and enhance existing lowland wetlands.**	**SGRPID / FCS** / AC / ACC / SNH / **CNPA / FES** / Landowners / SRPBA / CEH / **SEPA**
20.2.1	Reduce nutrient enrichment pressures on lowland wetlands by promoting nutrient budgeting on farmland in their catchments, and the use of buffer strips around the wetlands and their feeder burns.	**SGRPID / CNPA** / Land Owners / SRPBA / SNH
20.2.2	Promote the blocking of peripheral drainage systems to help to restore natural water levels in selected sites.	**SGRPID / CNPA** / Land Owners / SRPBA / SNH / FES
20.2.3	Encourage through RDCs.	**SGRPID / FES**
20.2.4	Consider use of ECN data to identify pressures on Lochs Davan and Kinord.	CEH / **SEPA**
20.3	**Restore natural storage capacity of lowland raised bogs and other peatlands.**	**SGRPID / CNPA** / Land Owners / SNH
20.3.1	Ensure RDCs cover all designated and non-designated lowland raised bogs and fens in the catchment with specific measures for the blocking of drains to promote rewetting of the surface and active peat growth.	SNH / SGRPID/ CNPA
20.4	**Encourage restoration of natural ponds and wetlands.**	**SGRPID / SNH / AC** / ACC / RSPB / SWT / FWAG / Landowners / Land managers / CNPA / CLBAP / NELBAP / FCS / FES / Woodland officers / SW / NFUS / MI / Local Communities / SEPA
20.4.1	Identify suitable drained sites for restoration and negotiate with relevant parties for the removal or reduction of drainage systems.	RSPB / SNH / CNPA / CLBAP
20.4.2	Seek adequate funding and other incentives for practical wetland restoration as part of the RDR.	**SGRPID / SNH** / AC / ACC / RSPB / SWT / FWAG / Landowners / Land managers
20.4.3	Through the formulation of long term forest plans identify and restore wetlands within forest areas as part of the open space allocation.	FCS / FES / Woodland officers / Landowners AC / ACC / SEPA / SNH
20.4.4	As part of the co-ordinated flood management strategy - identify existing flood protection areas of low land management benefit or causing detriment to the river system - promote the removal of raised and artificial banks to reinstate and re-create permanently functional flood plain areas, and associated wetland habitats for the benefit of water management and biodiversity.	ACC / AC / SEPA / SGRPID / SNH / Land owners / Local Communities
20.4.5	Explore the potential for using low intensity grazing to support restoration.	CNPA / NFUS / SGRPID
20.4.6	Ensure post-restoration management plans are in place for e.g. Mill of Gellan and Tarland wetlands.	**AC** / SNH / SW / MI
20.5	**Produce and promote good practice guidelines for wetland restoration and demonstration projects.**	**SEPA** / ACC / AC / FC / SWT / NELBAP / SGRPID / FWAG

Acronyms are listed in the centre of this Action Card

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lowland wetlands

20 HABITATS

OBJECTIVE 20. Encourage re-creation of lost lowland wetland habitats to 1) enhance habitat diversity for the benefit of wildlife, and 2) to promote drainage attenuation in order to reduce extremes of spate flow, and consequent impacts upon river habitats.

BACKGROUND

The valleys of the Dee catchment hold a variety of wetlands.

- Several small lochs are scattered along the Dee valley between Dinnet and Aberdeen. Lochs Davan, Kinord, Aboyne, and Skene hold various national and international designations in recognition of their importance for their aquatic and marginal flora, wintering and breeding bird populations and otters.
- A few lochs are artificially impounded, namely Aboyne Loch which is used as a water ski area, yet retains a nationally important aquatic plant community, and Loch of Skene which is a Special Protection Area for wintering geese.
- Raised bogs are very restricted with just a few examples occurring on the Muir of Dinnet, Red Moss of Netherley and Red Moss of Candaglirach near Banchory. The former two examples are designated as Special Areas of Conservation.
- Springs, flushes, fens, natural ponds, wet woodlands and wet hollows add to the diversity with valuable plant and invertebrate communities.

ISSUES

- A few lochs have been drained completely such as Auchlossen which occurred near Lumphanan, and others, such as Loch of Leys near Banchory, Loch of Park and Loch Davan at Dinnet have had their water capacity reduced by artificial drainage.
- Low level lochs remain vulnerable to enrichment from agricultural runoff, with high nutrient levels at Loch of Skene causing periodic blooms of toxic algae. A trend of enrichment from agricultural runoff is also a concern at Loch Davan. Knockburn Loch and Loirston Loch may also have blue-green algae problems.
- Natural ponds, wet woodlands and wet hollows are very vulnerable to drainage and it is believed that many have been drained in the past to improve land for agriculture and forestry.
- Reducing the capacity of these areas to hold water has consequences for wildlife that depend on these habitats.
- The drainage of wetlands has upset the catchment's water balance, increasing the rate that water flows though it; this is thought to have caused a greater propensity for spate flows.
- The increase in high volume spates accelerates erosion of the banks and river bed which can be damaging to salmon redds and mussel beds, and makes the catchment more vulnerable to catastrophic flooding.

EXISTING / RECENT INITIATIVES

- The 3-Dee Vision project targeted actions to reduce the risk of enrichment in the Loch Davan catchment by identifying the likely causes and then promoting positive actions, e.g. nutrient budgeting on arable farms, the development of buffer strips adjacent to drains and other watercourses.
- The North East Scotland Wetland Inventory examined the current wetland resources of Moray, Aberdeenshire and Aberdeen City.
  - The principal aim was to identify wetland sites with potential for restoration, expansion or creation.
  - It was estimated that the region holds c.153 ha of reedbed, c.1, 630 ha of fen and c.1, 490 ha of wet woodland.
  - Five reedbeds and nine fens were found to be suitable for expansion. Four wet woodlands were also identified as suitable, although the potential expansion area for this habitat was relatively small. In addition, 73 ha of forest wetland and 772 ha of potential wet grassland sites were identified for habitat restoration.
  - The information collated in this study has formed the basis of the Local

WHO IS INVOLVED?

Aberdeenshire Council
Aberdeen City Council
Centre for Ecology and Hydrology
Cairngorms Local Biodiversity Action Plan
Cairngorms National Park Authority
Farming & Wildlife Advisory Group
Forestry Commission Scotland
Forest Enterprise Scotland
Landowners
Land managers
Local community
The Macaulay Institute
Royal Society for the Protection of Birds
Scottish Environment Protection Agency
Scottish Government Rural Payments & Inspections Directorate
Scottish Natural Heritage
Scottish Rural Property & Business Association
Scottish Water
Scottish Wildlife Trust
Woodland Officers

Further copies can be downloaded at www.theriverdee.org. For further information contact the Dee Catchment Officer
c/o The Macaulay Institute, Craigiebuckler, Aberdeen AB15 8QH Telephone: 01224 498200 email: info@theriverdee.org

deecatchment partnership

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Biodiversity Action Plan (LBAP) for wetland habitats (developed in association with RSPB Scotland).

- The Scottish Environment Protection Agency (SEPA) is leading on a wetlands inventory to identify degraged and non degraded wetlands.
- The drainage of existing wetlands in forest areas in contrary to Forestry Commission Scotland's Forests and Water Guidelines
- The Cairngorms Park Plan and the Cairngorms, Aberdeenshire and Aberdeen City Local Plans contain policies to conserve existing wetlands.
- Indicative Forestry Strategy identifies wetland areas as unsuitable for forestry.
- The historic Rural Stewardship Scheme promoted the creation of wetlands.
- The drainage of ponds is contrary to Good Agricultural and Environmental Conditions (GAEC) Condition 16.
- SEPA monitors Lochs Davan and Kinord for the Environmental Change Network.
- Scottish Forestry Strategy.

ACTIONS REQUIRED

- Complete and join up existing wetlands audits to guide a targeted, holistic approach to the development of new wetlands.
- Although many areas of wetland in the Dee catchment have been lost, many valuable sites remain. All remaining wetlands need to be protected from any further damage.
- The current moves towards restoring wetlands should be promoted more actively, with positive incentives to block drains in bogs and to recreate wetlands that have been drained.
- Flood plain wetlands need to be restored.
- Wet woodlands need to be created/restored.
- Ensure post-restoration management plans are in place for e.g. Mill of Gellan and Tarland wetlands.

LEGISLATION

See Action Pack Annex for information sources

- Aberdeenshire and Aberdeen City Local Plans
- Cairngorms Local Plan
- Environmental Impact Assessment (EIA) regulations for uncultivated land.
- Forestry Act 1967
- Forestry Environmental Impact Assessment Regulations
- Flood Prevention Act 1961
- Flood Prevention and Land Drainage (Scotland) Act 1997
- GAEC standards - Condition 16 forbids the drainage of ponds
- Good Farming Practice Guidelines / Section 17 of Agriculture Act
- Habitats Regulations
- Nature Conservation (Scotland) Act
- Town and Country Planning (Scotland) Act 1997
- Water Environment and Water Services Act (2003)

GUIDELINES AND INFORMATION

See Action Pack Annex for information sources

- Pond Design (Aberdeenshire Council)
- Ditching and dredging leaflet
- Forests and Water Guidelines (Forestry Commission)
- Forestry Commission (FC) Nature Conservation guidelines
- Proposed FC biodiversity guidelines
- Good Farming Practice guidelines
- Environment Act 1995
- SEPA - Ponds, Pools and Lochans
- Scottish Forestry Grants Scheme
- Muir Burn Code (Scottish Natural Heritage)

BENEFITS TO PROTECTED SPECIES

The following specially protected species will benefit from the Actions:

- Common frog *Rana temporaria*
- Palmate newt *Triturus helveticus*
- Northern blue damselfly *Coenagrion hastulatum*
- Pipistrelle bat *Pipistrellus pipistrellus*
- Water shrew *Sorex palustris*
- Water vole *Arvicola terrestris*
- Snipe *Gallinago gallinago*
- Spotted crake *Porzana porzana*
- Water rail *Rallus aquaticus*
- Osprey *Pandion haliaetus*



Wetlands are important otter haitats.

RELATED ACTION CARDS

15. Rates of run-off
16. Flood alleviation
23. Wet and riparian woodland
27. Freshwater pearl mussel
28. Otter
35. Loch Davan
36. Loch of Skene