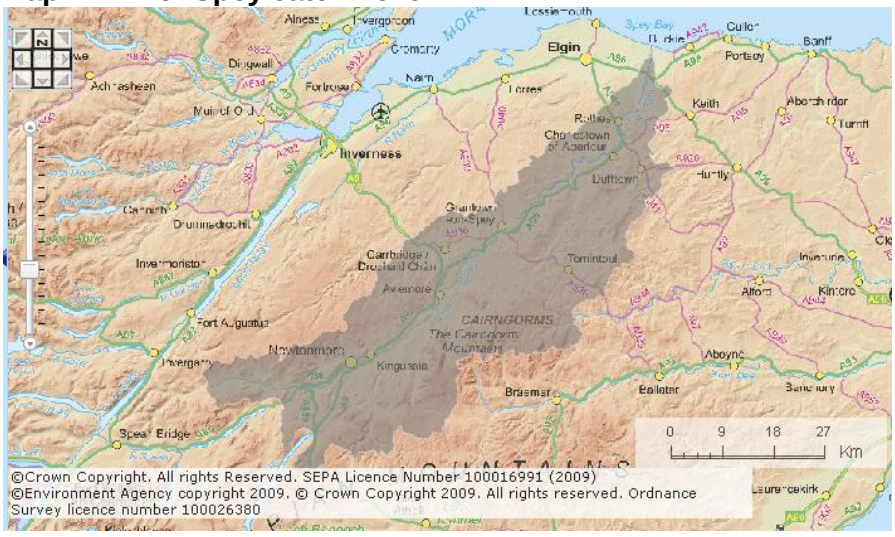
River Basin Management Planning

River Spey catchment summary

1 Introduction

The River Spey catchment (shown on Map 1) rises in the Monadhliath Mountains and enters the Moray Firth at Spey Bay. It is the second longest river in Scotland, with a catchment area of over 3,000km^2. The River Spey is designated as a Special Area of Conservation (SAC) for atlantic salmon, freshwater pearl mussel, lamprey and otter, and the lower Spey is a Special Area of Conservation for coastal shingle and floodplain woodland features. Over 60% of the catchment falls within the Cairngorms National Park.

Map 1: River Spey catchment



The upper catchment land use is predominantly hill farming, forestry and sporting estates, while the lower catchment has a greater level of livestock and arable farming. There are a number of small villages and towns throughout the catchment, with the greatest population density occurring in the Aviemore area.

Two hydro electricity schemes operate in the upper catchment, on the Tromie / Truim tributaries and at Spey Dam.

Further information on the condition of water bodies in the River Spey catchment can be found on SEPA's interactive map at www.sepa.org.uk/water/river_basin_planning.aspx

2 Classification summary of the catchment

SEPA constantly monitors the water environment and updates the classification results on ecological status annually. In summary, according to the results for 2008, the River Spey catchment contains:

- 13 water bodies at high ecological status.
- 37 water bodies at good ecological status.
- 21 water bodies at moderate ecological status, 10 water bodies at poor ecological status and 6 water bodies at bad ecological status. Table 1 gives further details of these water bodies.
- 10 Heavily Modified Water Bodies, 8 which are at Good Ecological Potential, one at Poor Ecological Potential and one at Bad Ecological Potential.

The upper catchment is underlain by the a number of groundwater bodies (including the Upper Spey Bedrock, Spey Valley Sand and Gravel, Glenlivet, Feshie Valley Sand and Gravel, and Tomintoul groundwater bodies) which are classified as being at good status. However, close to the

mouth of the Spey, the underlying groundwater bodies of Fochabers and Elgin bedrock are at poor status in terms of quantity, although their chemical status is good.

3 Details of pressures affecting the catchment

The main reasons for downgrading of water bodies in the Spey catchment are **changes to beds and banks** and pressures from **abstraction**, predominantly related to whisky and energy production. In addition, a small number of water bodies are affected by point source pollution from sewage treatment and other discharges. These pressures are discussed in more detail below for surface waters, groundwater and protected areas, and are summarised in Table 1.

Point source pollution

Seven water bodies have point source sewage discharges listed as pressures, and a number of Scottish Water investment measures have already been delivered to address this. Further improvements are proposed for Aberlour, and the impact of sewage discharges into the Aberlour Burn will be investigated.

Aberlour and Green Burns are affected by distillery discharges. Some improvements in distillery effluent treatment have already been made, but additional work will be required in order to achieve good status for both phosphorus and copper by 2015.

Priority catchment work (diffuse pollution, water resources and morphology)

Three burns in the River Spey and Spey Bay catchments are affected by diffuse agricultural pollution and are at moderate status. Eight burns are downgraded due to straightening through agricultural or forestry land use, or coniferous planting up to the banks. The Spey is currently proposed as a cycle 3 priority catchment, which means that SEPA will focus efforts on these issues during 2021-2027, but scoping and assessment work may take place before this. Pressures relating to forestry are likely to be reduced as forests are harvested and restocked.

Abstraction

Seven rivers are classified at less than good status for hydrology – all due to distillery abstractions. Currently, none of these are anticipated to achieve good hydrological status by 2015, but this is primarily because actual abstraction rates need to be verified before the required measures can be confirmed with operators.

Heavily Modified Water bodies

Eight rivers and two lochs in the Spey catchment have been designated as heavily modified water bodies, due to being used for hydropower generation. The main mitigation for abstractions and impoundments is the provision of fish passage and an appropriate flow regime downstream. Assessment of required measures was carried out at operator workshops in 2008, and further verified at stakeholder /operator workshops in 2009. However, mitigation measures will need further verification by SEPA staff, and additional measures are still required in order to achieve Good Ecological Potential by 2015 for the River Mashie and Allt Cuaich.

Other changes to beds and banks
In addition to the heavily modified water bodies discussed above, 22 rivers and one loch are classified at less than good status due to barriers to fish passage. The Restoration Fund (see www.sepa.org.uk/water/restoration_fund.aspx) may be able to support scoping and works on making these barriers passable to fish, and the Area Advisory Group can help to encourage prioritisation and partnership working in these areas.

Protected Areas
Bathing Waters
By 2015, all bathing waters are required to achieve sufficient status under the revised Bathing Water Directive. Based on recent results, Loch Morlich (the only Bathing Water in the catchment) is likely to achieve excellent status under the new BW standards.

Freshwater Fish
The Spey Freshwater Fish area is compliant with imperative standards.

Special Areas of Conservation/ Special Protection Areas
No Special Areas of Conservation or Special Protection Areas in the Spey catchment have been reported by Scottish Natural Heritage as being in unfavourable condition.

4 Partnership working

The action plan for the Spey will rely on licensed operators and landowners to deliver improvements, with support and advice from the North East area advisory group.

Work to tackle fish barriers will need a strong partnership approach, and fishery interests, landowners, operators and the area advisory group will play a critical role in improving fish passage and reducing the impacts of abstraction. Beyond 2015, actions will involve a continued focus on fish barriers, ongoing management of abstractions and gradual changes in forestry land management as felling and restocking takes place. In addition, there will be a need to maintain good status for all water bodies, and to identify and address new and emerging pressures.

The Spey Catchment Management Plan (2003, available at www.snh.org.uk/pubs/detail.asp?id=956) sets out clear actions to secure improvements in the catchment, and already has excellent partnership working systems in place.

The Spey Catchment Initiative is a two year project, begun in late 2010, to help protect, enhance and understand the whole river Spey Catchment. More information on this work is available at www.cairngorms.co.uk/look-after/conservation-projects/spey-catchment-initiative

The Spey Fisheries Trust works closely with landowners and will work on improvements in riparian habitat management and fish barrier removal / mitigation. Their Fishery Management Plan can be viewed at www.rafts.org.uk/FileLibrary/FMP%20Project/Spey%20FMP%202009-2014.pdf.

The environmental and biodiversity priorities from the Cairngorms National Park Authority's national park plan (2007-2012) can be viewed at:

www.cairngorms.co.uk/nationalparkplan/prioritiesforaction/biodiversityandlandscapes/

The River Spey Biosecurity Plan sets out priorities and action on Invasive Non Native Species.
See www.speyfisheryboard.com/spey-foundation-publications/?did=21

Table 1 – Summary of pressures and objectives for water bodies at less than good status in the River Spey catchment

Water body	Current status	Pressures	Target	Action (who by)
Loch an Eilein	Moderate	Alterations to beds / banks	Good by 2021	Remove / mitigate fish barrier (landowners)
River Spey (R. Fiddich – tidal limit)	Moderate	Point source pollution	Good by 2015	Improvements to sewage treatment (Scottish Water - already completed)
River Spey (R. Avon – R. Fiddich)	Moderate	Alterations to beds/ banks Point source pollution	Good by 2027	Remove / mitigate fish barrier (landowners) Improvements to sewage treatment (Scottish Water - already completed)
Burn of Fochabers	Poor	Alteration to beds/ banks	Good by 2027	Remove / mitigate fish barrier (landowners) Improve riparian zone (Forestry Commission Scotland)
Broad Burn	Poor	Alteration to beds/ banks	Good by 2027	Remove / mitigate fish barriers (operators) Improve riparian zone (Forestry Commission Scotland)
Rothes Burn	Bad	Alteration to beds/ banks Abstraction	Good by 2027	Control abstractions (operators) Remove / mitigate fish barriers (landowners) Improve riparian zone (Forestry Commission Scotland)
River Fiddich (d/stream Dufftown)	Bad	Abstraction Alteration to beds/banks	Good by 2027	Control abstractions (operators) Remove / mitigate fish barriers (landowners)
Burn of Aldernie	Poor	Alteration to beds/ banks	Good by 2027	Remove / mitigate fish barrier (landowners)
River Fiddich (u/stream Dufftown)	Moderate	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (landowners)
Dullan Water	Bad	Abstraction	Good by 2027	Control abstraction (operators)
Aberlour Burn	Bad	Abstraction Diffuse source pollution Point source pollution	Good by 2015	Control abstraction (operators) Reduce diffuse pollution (farmers) and point source pollution (operators)
Ballintomb Burn	Moderate	Alteration to beds/banks	Good by 2021	Improve riparian zone (Forestry Commission Scotland)
Knockando Burn	Bad	Abstraction Alteration to beds/banks	Good by 2027	Control abstraction and remove / mitigate fish barrier (operators)

Water body	Current status	Pressures	Target	Action (who by)
R. Avon / R. Livet – lower catchment	Moderate	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (landowners)
R. Avon (L.Avon – Burn of Loin)	Moderate	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (landowners)
Burn of Lyneriach	Poor	Alteration to beds/banks	Good by 2015	Remove / mitigate fish barrier (landowners)
Burn of Tervie	Moderate	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (landowners)
R. Livet / Crombie Water u/s Tomnavoulin	Poor	Abstraction	Good by 2027	Control abstraction (operators)
Conglass Water	Moderate	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (Aberdeenshire Council, Forestry Commission Scotland)
R.Spey (R. Feshie - R.Nethy)	Moderate	Alteration to beds/banks Point source pollution	Good by 2027	Improve modified habitat (landowners) Increase sewage treatment (Scottish Water)
Cromdale Burn	Bad	Abstraction	Good by 2027	Control abstraction (operators)
R. Dulnain (Allt nam Moireach)	Moderate	Diffuse source pollution	Good by 2027	Reduce diffuse pollution (SEPA)
R. Dulnain (Feith Mhor)	Poor	Alteration to beds/banks	Good by 2021	Remove / mitigate fish barriers (landowners)
R. Dulnain (Duthil Burn)	Moderate	Alteration to beds/banks	Good by 2027	Improve modified habitat (landowners)
R. Nethy (u/s Nethy Bridge)	Moderate	Alteration to beds/banks	Good by 2021	Remove / mitigate fish barrier (landowners)
Burn out of Loch an Eilein	Moderate	Alteration to beds/banks	Good by 2021	Remove / mitigate fish barrier (landowners)
Burn into Loch an Eilein	Moderate	Alteration to beds/banks	Good by 2021	Remove / mitigate fish barrier (landowners)
Allt na Fearna (u/s Loch Alvie)	Poor	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (operators)
Raitts Burn	Moderate	Diffuse source pollution	Good by 2027	Reduce diffuse source pollution (SEPA)
River Gynack	Moderate	Diffuse source pollution	Good by 2027	Reduce diffuse source pollution (SEPA)
River Tromie – Allt Garbh Ghaig	Moderate	Alteration to beds/banks	Good by 2027	Remove / mitigate fish barrier (operators)

Water body	Current status	Pressures	Target	Action (who by)
River Mashie	Bad Ecological Potential	Alteration to beds/banks Abstraction Flow regulation	Good by 2015	Remove / mitigate fish barrier Control abstraction Control pattern / timing of abstraction (operators)
Loch Insh	Moderate	Abstraction	Good by 2015	Measures still to be determined
Markie Burn	Poor	Alteration to beds / banks, fish barrier	Good by 2027	Measure to be determined
R. Spey – Garva to L.Crunulachan	Moderate	Alteration to bed / banks	Good by 2027	Improve modified habitat (to be agreed)
Allt Crunachdain	Poor	Alteration to bed / banks	Poor by 2027	Fish barrier is to prevent fish access to Lochy catchment, therefore no measure to allow passage.
R.Spey – source to Garva	Moderate	Alterations to bed / banks	Good by 2027	Improve modified habitat (to be agreed)
R.Spey (Spey Dam – Loch Insh)[1]	Moderate Ecological Potential	Alterations to beds / banks	Good EP by 2027	Improved modified habitat (new measure to be agreed)
Green Burn	Poor	Diffuse source pollution Alterations to bed / banks Point source pollution	Good by 2021	Reduce diffuse pollution Improve modified habitat Increase treatment of discharges & reduce inputs (landowners and operators)
Allt Cuaich	Poor ecological potential	Abstraction Changes to beds / banks	Good EP by 2027	Control abstractions Remove / mitigate fish barriers (operators)
Fochabers Bedrock (groundwater)	Poor	Abstraction	Good by 2027	Control abstractions (Scottish Water, operators, farmers)
Elgin Bedrock (groundwater)	Poor	Abstraction	Good by 2027	Control abstraction (distillery operators)

[1] Information updated at 2010 classification. Moderate Ecological Potential on this water body is due to alterations to banks (embankments which are unrelated to HMWB designation).