

**Improving the quality of Scotland's water environment
North-east Scotland area management plan
2010–2015**

**Supplementary to the river basin management plan for the
Scotland river basin district**

Executive summary

The purpose of this plan is to maintain and improve the ecological status of the rivers, lochs, estuaries, coastal waters and groundwater areas in the north-east of Scotland. This plan supplements the *River basin management plan for the Scotland river basin district*, and will help to deliver Water Framework Directive requirements. It focuses on local actions for the north-east of Scotland and highlights the opportunities for partnership working to ensure that we all benefit from improvements to the water environment.

This plan has been produced in partnership with the north-east Scotland Area Advisory Group. The actions set out in the plan will bring important benefits for drinking water, flood prevention, natural habitats and mitigating the impacts of climate change.

In 2008, 50% of water bodies in north-east Scotland were classified under the Water Framework Directive as being at good or high ecological status, and this plan aims to maintain this good status and to secure improvements to water bodies below good ecological status. The planned improvement targets until 2027 are set out in Table 1 – these targets are demanding and can only be achieved through partnership working by the Area Advisory Group and other stakeholders from north-east Scotland.

Table 1: Overview of planned improvements for north-east Scotland, 2010 - 2027

	2008	2015	2021	2027
% of water bodies at good (or high) ecological status	50%	63%	75%	98%

The important issues for the north-east Scotland area management plan are:

- to reduce the impacts of nutrient enrichment from diffuse pollution and sewage treatment – this will initially focus on the Buchan coastal, Dee, Deveron and Ugie catchments;
- to increase the number of water bodies accessible to migratory fish, and to tackle alterations to beds and banks – initially this will concentrate on the Dee, Spey and Deveron catchments where several water bodies are downgraded because of fish barriers and alterations to beds and banks;
- to reduce the impacts of abstraction, particularly on the Deveron, Spey and Buchan coastal catchments;
- to raise awareness of the importance of the water environment to north-east Scotland, and to let people know how their actions can protect and enhance it. This will require communication, events and projects across the whole north-east of Scotland.

Delivering these improvements will require actions from many partners. The Area Advisory Group will ensure that appropriate networks and stakeholders are involved in this process. The group will also oversee the development of new actions and monitor the implementation and resulting improvements.

The river basin management plan for Scotland and the eight supplementary area management plans describe how we are going to manage and improve our water

environment over the next six years. This Area Management Plan will run from 2010 to 2015, when it will be reviewed and the next six year cycle of planning will begin.

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This plan has been produced by the North-east Area Advisory Group, which is made up of representatives from the following organisations.

- Aberdeen City Council
- Aberdeenshire Council
- Aberdeen Harbour Board
- Cairngorms National Park Authority
- Dee Catchment Management Plan
- Dee District Salmon Fishery Board
- East Grampian Coastal Partnership
- Forestry Commission Scotland
- Highland Council
- Malt Distillers Association
- Moray Council
- Moray Firth Partnership
- National Farmers Union Scotland
- Royal Society for the Protection of Birds
- Scottish Environment Protection Agency
- Scottish Government Rural Payments and Inspections Department
- Scottish Natural Heritage
- Scottish and Southern Energy
- Scottish Rural Property and Business Association
- Scottish Water
- Spey District Salmon Fishery Board

| SEPA would like to thank these group members and the other organisations who have worked to prepare this first area management plan for north-east Scotland.

Introduction

Purpose

This plan aims to maintain and improve the ecological status of the rivers, lochs, estuaries, coastal waters and groundwater areas in the north-east of Scotland. It is a local action plan which supplements the *River basin management plan for the Scotland river basin district*, and will help to deliver Water Framework Directive requirements. It focuses on local actions for the north-east of Scotland and highlights the opportunities for partnership working to ensure that we all benefit from improvements to the water environment.

What area does this plan cover?

The north-east Scotland advisory group area covers all of the land that drains into the rivers Spey, Deveron, Ugie, Ythan, Don and Dee, plus wetlands, lochs, estuaries and adjacent coastal waters. The plan also considers groundwater, which lies beneath the land surface and is an important source of drinking water.

The area (shown on Map 1) includes the agricultural areas of Buchan, much of the Cairngorms National Park, and major settlements such as Aberdeen, Peterhead, Inverurie and Fraserburgh.

A high quality water environment is vitally important for many of the iconic industries and landscapes of north-east Scotland. These include the internationally famous Speyside distilling industry, renowned salmon fishing destinations such as the Dee, Spey and Deveron, and a tourism industry based on mountains and high quality bathing beaches. The area is also internationally important for species including freshwater pearl mussels, salmon, otters and a range of upland and wading birds.

The plan for the north-east needs to consider these and other important social and economic uses linked to the water environment. These include agriculture, commercial forestry, sporting estates, hydro-power schemes and major commercial ports for the offshore energy and fishing industries.

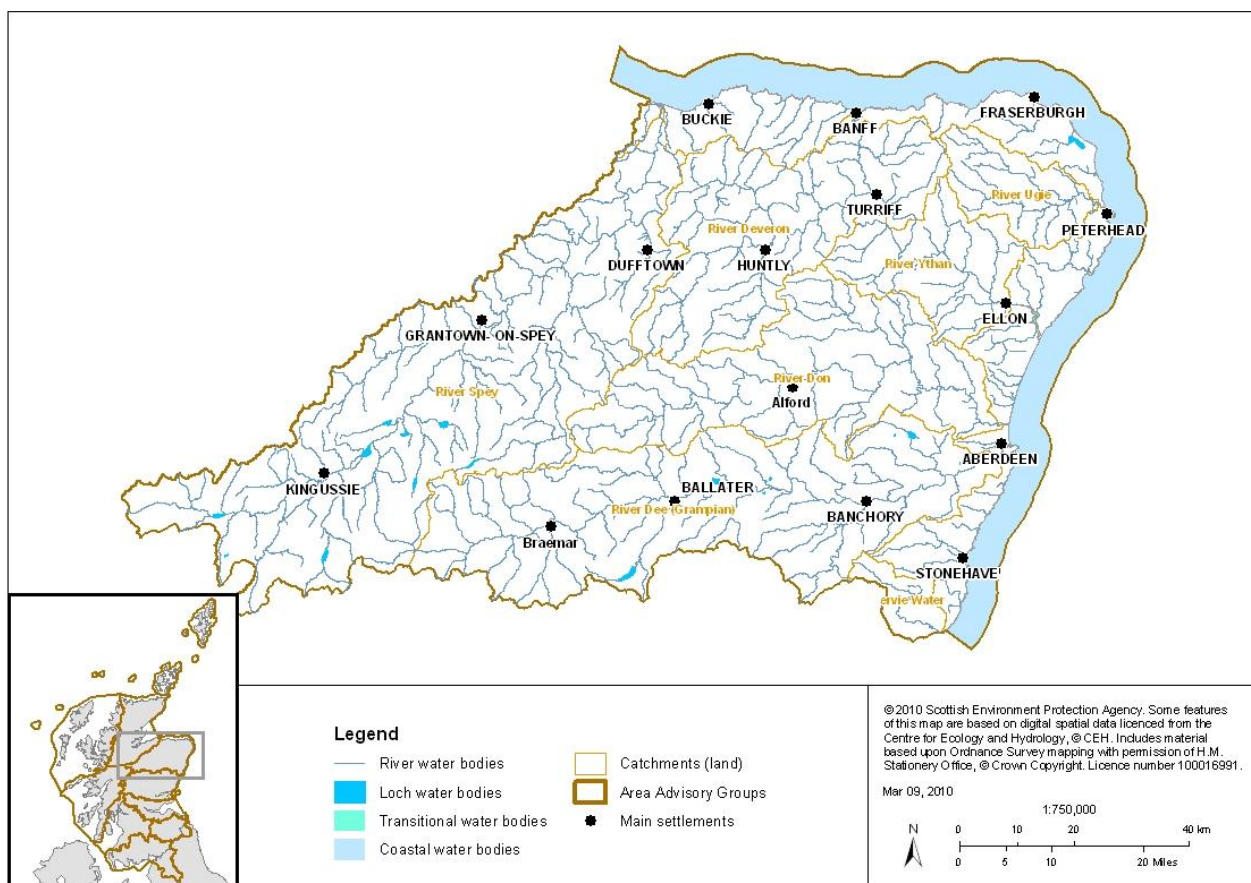
How to use the north-east area management plan

This plan is for the North-east Area Advisory Group and

- anyone who manages or uses the water environment;
- anyone who manages activities on land that interacts with the water environment;
- anyone who wants to know more about how our water environment is being protected.

This plan is to co-ordinate the delivery of the river basin management plan for the Scotland river basin district within the north-east advisory group area. You may find it helpful to see how the aims and objectives of this area management plan will contribute to what we are trying to achieve on a larger, national scale: the Scotland river basin district plan also includes a number of chapters that explain the different parts of the river basin planning process. Detailed information for individual water bodies (whether they are part of the coast, groundwater, rivers, lochs or estuaries) is

held in the web-based interactive map available on the SEPA website at:
www.sepa.org.uk/water/river_basin_planning.aspx



Map 1: North-east Scotland Advisory Group Area (showing main catchments)

This plan has three key components:

1. **Area management plan summary** (this document) is an overview of the north-east advisory group area including classification, objectives, key measures and an outline of the work plan for the North-east Area Advisory Group for the next year.
2. **Catchment profiles** will provide information on classification, pressures, measures and objectives for each catchment. Catchment profiles will be produced between May and November 2010 and will be developed and kept as live documents during this first river basin planning cycle. They will be available at:
www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/north_east_scotland.aspx
3. **Action plan** with information about how the Area Advisory Group will work together to deliver the area plan, and a record of where new actions are being developed. This will also be kept as a live document during the first river basin planning cycle, and will be available at:
www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/north_east_scotland.aspx

This plan has been produced in partnership with the organisations that are part of the North-east Area Advisory Group. This group is responsible for sharing the information contained in the plan with a wider range of stakeholders, to encourage them to

implement the actions required in the north-east advisory group area. SEPA's role in the development of the plan has been to provide information, particularly with regard to classification, and to co-ordinate information and input from others. In this document 'we' refers to all those involved in the production of this report – not just SEPA.

A wider forum has also been established. The forum is open to the public and offers an opportunity for a wider group of stakeholders to be involved in planning developments. There have been a small number of forum events in north-east Scotland, and we hope that this engagement approach can be developed and improved in the future.

The water environment and achieving environmental improvements

This section summarises the condition of the water environment in the north-east advisory group area, the improvements we plan to achieve and the key pressures and impacts that we need to address.

In general, the classification of surface water bodies describes by how much their ecological condition, or status, differs from near natural conditions. Water bodies in a near natural condition are at high ecological status. Those whose ecological quality has been severely damaged are at bad ecological status.

Catchment level summaries which detail the condition of the water environment, the improvements we plan to achieve and the key pressures and impacts that we need to address are included in catchment profiles. The catchment profiles will be produced between May and November 2010 and will be available at:

www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/north_east_scotland.aspx

Information on the classification, objectives and measures for the Scotland river basin district, as well as detailed supplementary information on how we classify and how objectives have been set, can be found in the Scotland plan. Information on individual water bodies can be accessed through the RBMP interactive map application on SEPA's website at: www.sepa.org.uk/water/river_basin_planning.aspx.

The current condition of the water environment

The water environment includes all rivers, lochs, estuaries, coastal waters, artificial waters (such as canals and reservoirs) and groundwater. It also includes all the wetlands that depend on surface waters or groundwater for their water needs. The environmental quality and natural characteristics of surface waters and groundwater vary widely. To reflect this variation, SEPA has divided these waters into 365 water bodies in the north-east area. Classifying the condition of each water body provides a picture of where the water environment is in good condition and where improvements need to be made. The results show that 50% of water bodies in the north-east area are at good or high ecological status (see Table 2 and Maps 2a-b below).

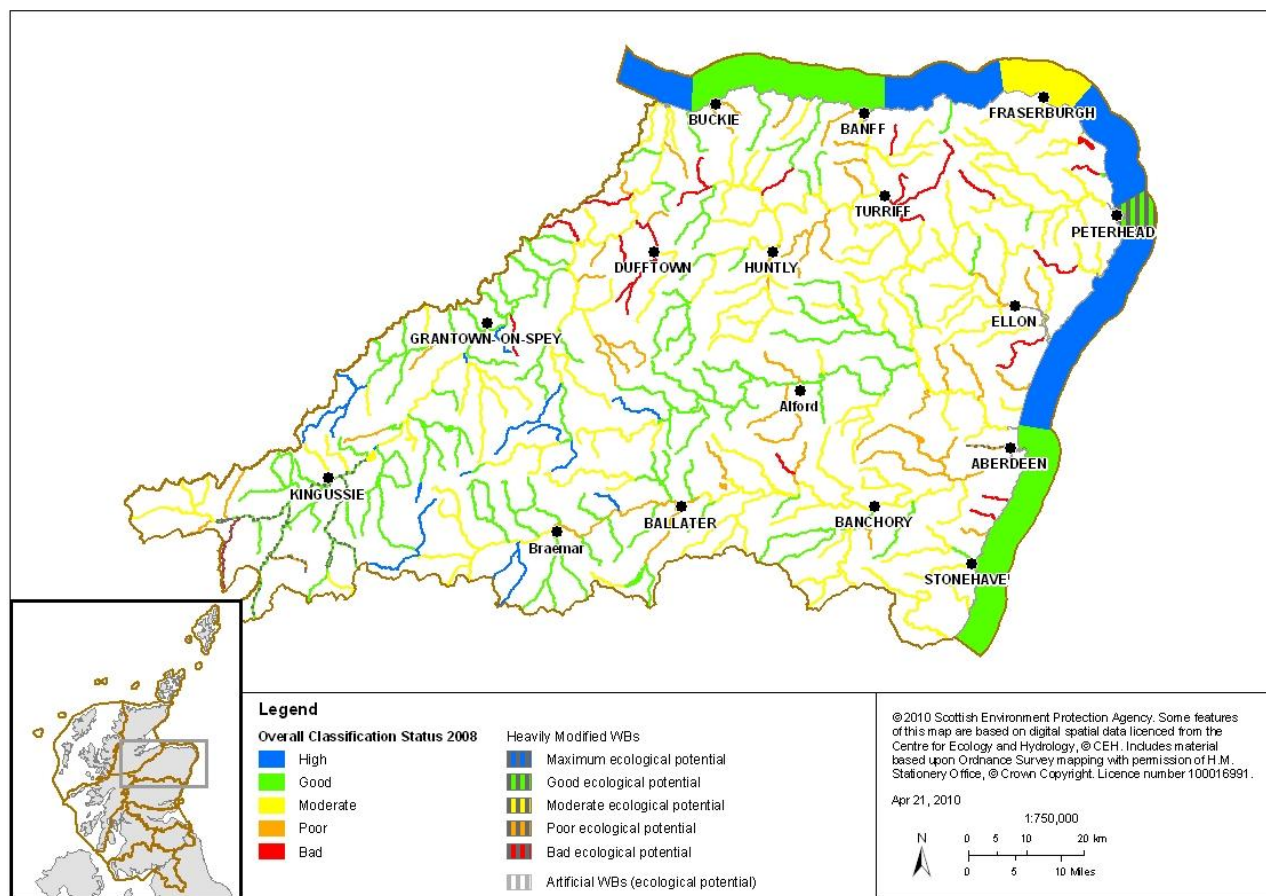
In north-east Scotland, 13 surface water bodies have been substantially changed in character for important purposes such as flood protection, hydropower generation, navigation, land drainage, or water storage for drinking water supply. These are known as heavily modified water bodies (HMWBs), and are assessed and classified differently, based on their ecological potential. This is a measure of the extent to which each water body's ecological quality has been maximised given the limits imposed by the physical modifications necessary for its use. For more information on heavily modified and artificial water bodies see Chapter 4 of the Scotland river basin district plan¹.

¹ More information on the classification of heavily modified water bodies can be found in Chapter 4 of the RBMP for the Scotland river basin district at: www.sepa.org.uk/water/river_basin_planning.aspx

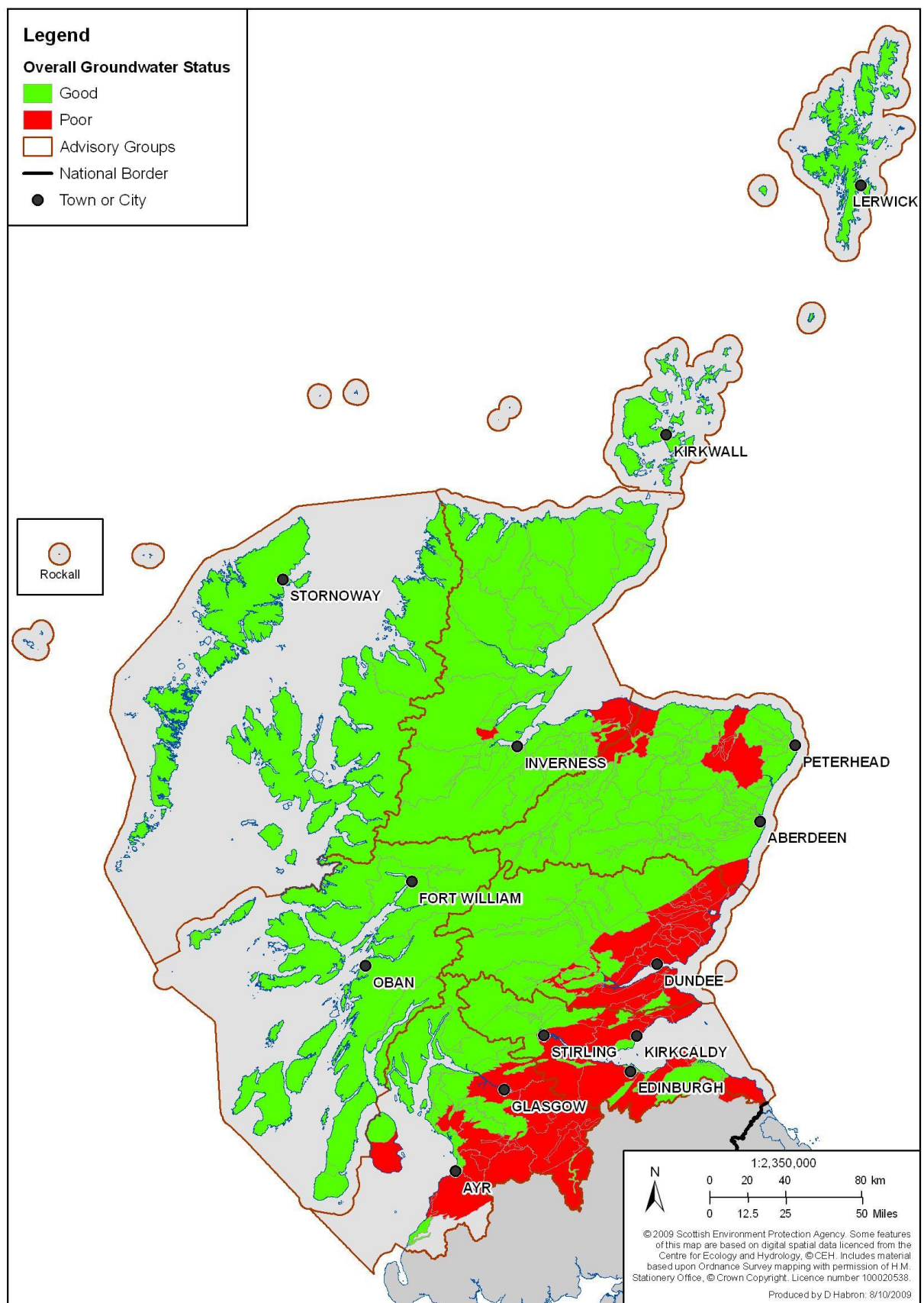
The classification of groundwater bodies describes whether or not they are polluted and whether or not the volume of any water being abstracted from them is sustainable without significant impacts on rivers or wetlands that depend on the groundwater. Unlike the five status classes applying to surface waters, two classes are used to describe the status of groundwater: good and poor.

Table 2: Condition of surface waters and groundwater in the north-east advisory group area in 2008				
2008 condition	Number of water bodies			
	All water bodies	Surface waters		Groundwater²
		Natural, non-heavily modified	Heavily modified or artificial	
High/Maximum	27	27	0	-
Good	155	100	10	45
Moderate	112	112	0	-
Poor	51	42	2	7
Bad	20	19	1	-
Totals	365	300	13	52
Proportion good or better (%)	50%	42%	77%	86%

² Bodies of groundwater are classed as either good status or poor status.



Map 2a: Current condition of surface and coastal water bodies in north-east Scotland



Map 2b: Current condition of groundwaters in Scotland

Pressures and risks

The main reasons for not achieving good ecological status are described as pressures. The most significant pressures affecting north-east Scotland are:

- Nutrient enrichment, predominantly from agricultural land use and sewage disposal. In the north-east, this is a particular issue for agricultural catchments.
- Abstraction and impoundment for drinking water supply, irrigation, hydropower generation and industries such as distilling. In the north-east, abstraction pressures are a particular issue for the Deveron and Spey catchments, relating to drinking water supply, hydropower generation and whisky production.
- Alterations to beds, banks and shores such as barriers to fish passage, culverting, straightening and channelisation. This can be due to agriculture, forestry, urban development and historical activities. These pressures are spread across all catchments in the north-east, with fish barriers being identified as a particular issue within the Spey, Dee, Deveron and Don catchments.

The above list does not include all impacts, and there are other issues that will also need to be addressed through river basin management planning. For example, recording the presence of invasive non native species and implementing the work outlined in the invasive non-native species implementation plan at a local level will be part of the group work plan in the future³.

Detailed information on impacts in each catchment is included in the catchment profiles and in the water body information files, both of which are available at: www.sepa.org.uk/water/river_basin_planning.aspx

Objectives for the water environment

The water environment of north-east Scotland has improved significantly over the past twenty years. The task now is to build on this achievement: the overall goal of the Scotland river basin management plan is for 98% of water bodies to be at good or high ecological status by 2027. In the north-east area we aim to move from the current position of 50% of water bodies at good or high ecological status, to 98% by 2027. To achieve that, all water bodies must be protected from deterioration, while action will be taken to improve those that are at less than good ecological status. Restoring waters to good ecological status will take time, so improvements have been prioritised over the periods 2009–2015, 2015–2021 and 2021–2027. For the small proportion of waters for which achieving good ecological status by 2027 is not feasible⁴, all reasonably achievable improvements will be made.

Comprehensive reviews of progress will be undertaken during each period and will be reported in updates of this plan.

Table 3 describes how improvements to the water environment will be phased, and Maps 3 and 4 show the location of such improvements. The phasing has been

³ Further information on invasive non native species can be found in the *River basin management plan for the Scotland river basin district*. Information on this pressure is improving, and a national implementation plan is being prepared.

⁴ Such as lochs that are recovering from acidification or the effects of nutrient enrichment.

designed so that the pace of improvement provides the time needed to develop and implement the necessary solutions and to make the required investments and adjustments without creating disproportionate financial burdens.

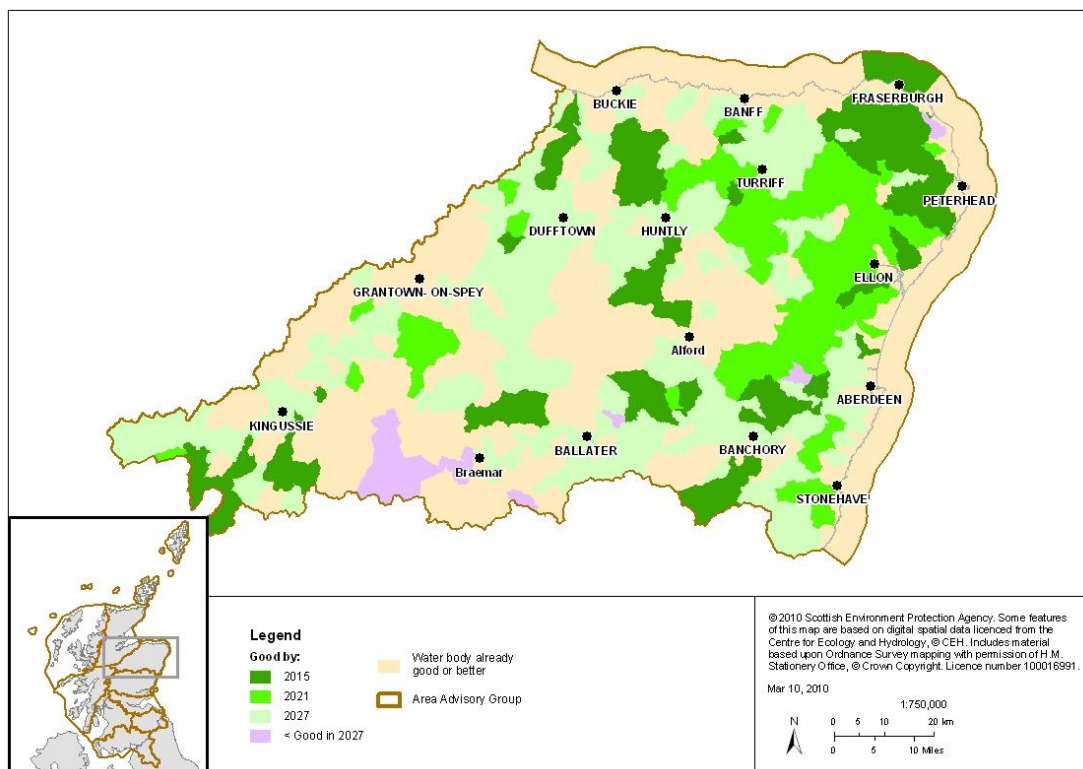
Table 3: Phased improvements to the condition of water bodies in the north-east of Scotland				
	Proportion of water bodies in a good or better condition (%)			
	2008	2015	2021	2027
All water bodies	50%	63%	75%	98%
Rivers	39%	54%	70%	99%
Lochs	58%	67%	75%	75%
Estuaries	86%	86%	86%	100%
Coastal waters	93%	100%	100%	100%
Groundwater	86%	94%	94%	100%

Extended deadlines for achieving good ecological status

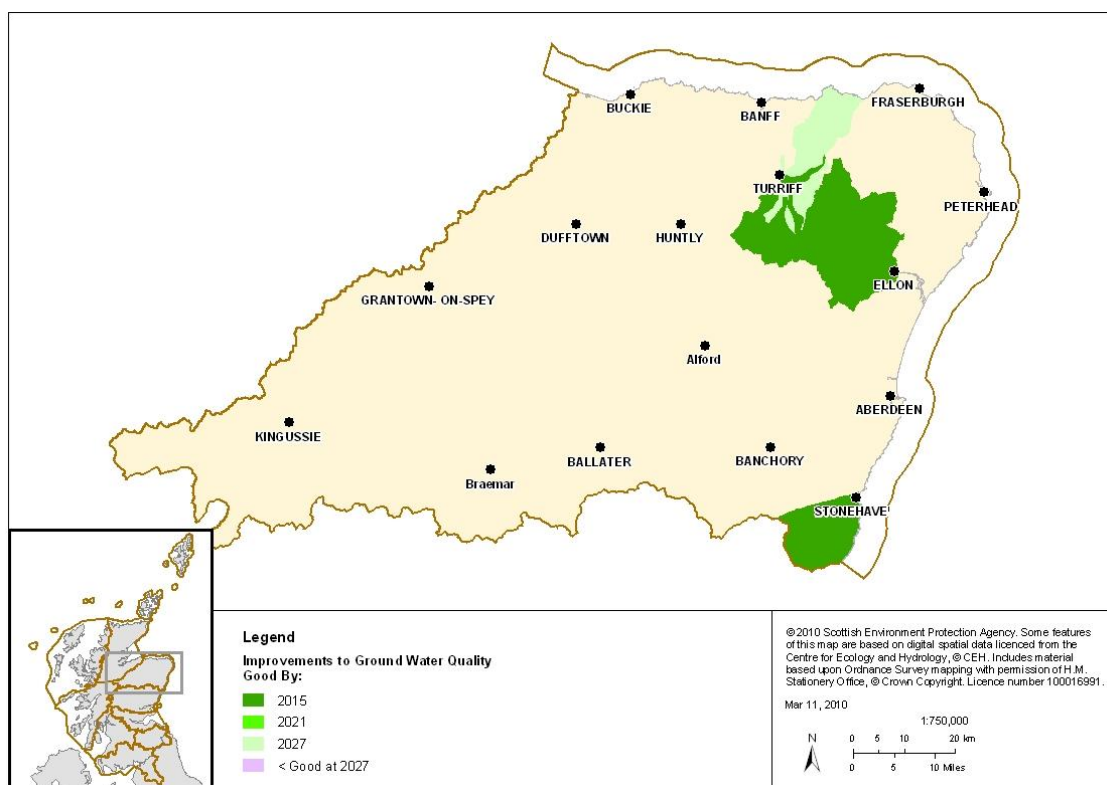
For seven water bodies in the north-east advisory group area, we believe that good ecological status cannot be achieved by 2027. We have set extended deadlines for such water bodies.

Four water bodies in the upper Dee catchment (Geldie Burn, River Dee from White Bridge to Braemar, River Muick from Allt an Dubh Loch and River Dee from source to White Bridge) have extended deadlines because their water quality is affected by acid deposition. The time needed for water bodies affected by acid deposition to recover is difficult to predict but, because of natural conditions, is likely to be beyond 2027.

Three lochs (Skene, Strathbeg and Kinord) have extended deadlines because of nutrient enrichment. In lochs, the rate at which the natural balance of water plants and animals can re-establish itself once nutrient pollution has been addressed is slow. Because of this naturally slow recovery rate, it is estimated that these three lochs may not reach good ecological status until after 2027.



Map 3: Planned improvements for surface waters, 2015-2027



Map 4: Planned improvements for groundwaters, 2015-2027

Protected areas

Many water bodies are also part of protected areas. The objectives for these include any additional protection needed to achieve the purposes for which the protected area was established. Protected areas include waters that:

- have been designated as bathing waters;
- provide water for human consumption;
- support species or habitats identified as requiring special protection under European legislation (please see www.snh.gov.uk for more information on individual protected areas).

Many protected areas are already achieving the goals for which they were established. The objective for these areas is to protect them from deterioration. Further environmental improvements are needed for other areas that are currently not meeting their objectives. Planned improvements to these protected areas are summarised in Table 4 below.

Table 4: Planned improvements to protected areas in the north-east of Scotland				
Protected area	Proportion of protected areas achieving the goals for which they were established (%)			
	2008	2015	2021	2027
Bathing waters	64%	100%	100%	100%
Conservation of habitats and species (Special Areas of Conservation and Special Protection Areas)*	96%	96%	96%	100%
Note to Table 5				
* Figures are given for Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) that have water dependant features and where these features are affected by water related issues.				

In addition:

- Two of the 76 Drinking Water Protected Areas in north-east Scotland are currently listed as being at risk of deterioration. These are in the Ugie and Deveron catchments, and the risks relate to diffuse pollution from arable and livestock farming. Measures have been introduced or planned to secure the protection of the quality of water abstracted from these areas.
- A substantial area of north-east Scotland is designated as the Moray, Aberdeenshire/Banff and Buchan Nitrate Vulnerable Zone. An action programme has been established, aiming to reduce water pollution caused by nitrates from agricultural sources and to prevent further such pollution. The action programme will be reviewed and, where necessary, revised every four years based on assessment of its effectiveness.
- Six rivers are designated as freshwater fish areas (the Ugie, Ythan, Bervie, Dee, Deveron and Don), and all are meeting required standards. The Freshwater Fish

Directive is due to be repealed in 2013, and the protection of economically important fish will then be achieved by protecting and improving the status of water bodies.

Actions planned to achieve our objectives

North-east Scotland has a successful track record of protecting and improving the water environment through planned programmes to manage and reduce pressures. Until recently this work has been largely focused on tackling polluting discharges.

River basin management planning requires us to establish a programme of measures to prevent deterioration and to improve the ecological status of water bodies that are not at good ecological status. The programme for Scotland includes the latest investment planning work for Scottish Water, work with landowners to reduce pollution and to develop ways to tackle pressures from irrigation, drinking water supply, hydropower generation and flood protection.

The measures in the Scotland river basin management plan automatically feed into this area management plan for north-east Scotland, but the action plan which accompanies this document also contains information on a range of measures which will be delivered by local partners. Some of these measures will contribute to water body status in an indirect way, through awareness raising and education, while others involve long-term projects and multiple partners.

The north-east Scotland area management plan will deliver improvements through a combination of regulation, investment, awareness raising and guidance. Specific measures and action plans will be developed through the North-east Area Advisory Group and its subgroups, and further background information on measures is included in the Scotland river basin district plan.

For north-east Scotland, some key measures to achieve the priorities for the area are described below.

To reduce the number of water bodies affected by nutrient enrichment from rural land use, the following national and local actions are planned.

- Focused work to address rural diffuse pollution, using voluntary, economic and regulatory measures will start in 2010. This work is steered by a national partnership, and includes a campaign to promote the uptake of the diffuse pollution General Binding Rules, coupled with a targeted catchment approach where SEPA staff will work directly with land managers in priority catchments. In the north-east of Scotland, the Buchan coastal, Dee, Deveron and Ugie will be priority catchments between 2010 and 2015. More information is available at www.sepa.org.uk/water/river_basin_planning/dp_priority_catchments.aspx
- Partnership work on guidance and environmental improvement, including action by Scottish Natural Heritage and others to improve the condition of designated nature conservation sites, and action by Forestry Commission Scotland to ensure that best practice is used when felling, replanting and managing forestry. In addition, local authority guidance and policy will be produced on topics such as sustainable urban drainage systems, soakaways and buffer strips will reduce the impacts of nutrient enrichment on water bodies.

To reduce the number of water bodies affected by sewage discharges and other point source pollution, the following national and local actions are planned.

- Investment in sewerage infrastructure. Scottish Water's planned programme of investment measures has been developed in partnership with SEPA and others, in order to address pressures on water bodies. In the north-east of Scotland, this programme will deliver specified improvements in sewerage provision, sewage treatment and water supply. SEPA and Scottish Water will also work closely with local planning authorities to ensure the impacts of future developments are considered in an integrated way.
- Ongoing regulation of discharges. SEPA regulates and works closely with licensed operators to reduce the impacts of discharges. In the north-east of Scotland, this will involve licensing and partnership work with distilleries and energy providers.

To reduce the number of water bodies affected by changes to beds and banks, and barriers to migratory fish movement, the following national and local actions are planned.

- Information gathering and measures planning. The above work in diffuse pollution priority catchments will identify impacts and plan mitigation measures for changes to beds, banks and shores in the Buchan coastal, Dee, Deveron and Ugie catchments.
- Economic incentives and regulation to remove fish barriers. SEPA's restoration fund can contribute towards the removal of fish barriers from watercourses, while regulation can be used to ensure that the impacts of barriers are mitigated through the use of good design and fish passes. In the north-east of Scotland, the River Dee Trust and Deveron, Bogie and Isla Rivers Trust have used restoration funding to remove a number of fish barriers, and it is hoped that work to prioritise and remove or mitigate barriers will continue through the actions of Area Advisory Group stakeholders.
- Ongoing work by fisheries trusts and boards, local authorities and landowners to remove fish barriers, improve bank conditions and improve spawning habitats for migratory fish.

To reduce the number of water bodies affected by abstraction, the following national and local actions are planned.

- Investment: Scottish Water will aim to minimise the amount of water required for supplying customers, through efficient management of the water supply system.
- Planning: SEPA and Scottish Water will work with local planning authorities to highlight areas where abstraction for drinking water is putting pressure on water bodies, and where future development must be constrained or the development impacts mitigated.
- Regulation: SEPA will work in partnership with hydropower generation companies and other operators who abstract water (such as whisky producers) to review licenses under the Controlled Activities Regulations (CAR).

More widely, the members of the Area Advisory Group have identified a broad range of ongoing and future projects to secure additional improvements in water body status. Examples include research and awareness raising work and funded work to develop innovative solutions on point pollution, habitat management and restoration. Catchment management planning is well developed for a number of river catchments in the north-east of Scotland, including the Dee, Spey, Don and Deveron. These plans have been developed through extensive engagement with stakeholders, and the north-east area management plan is intended to link closely with these plans.

Putting the plan into action

The North-east Area Advisory Group has developed an action programme for this first area management plan, and will continue to assess how well these measures are working. The group will review the status of water bodies and the progress of measures in the north-east on an annual basis, and will amend existing measures and develop new measures as required.

The group will consider the interaction of national processes with local initiatives, and will use their local knowledge to identify gaps where additional action is needed. The group has agreed that its efforts should be focused on complex issues where partnership working is required, and has identified four initial priorities for action during the first period of river basin planning (2010–2015).

- To reduce the impacts of nutrient enrichment from diffuse pollution and sewage treatment. This will involve an initial focus on the Buchan coastal, Dee, Deveron and Ugie catchments.
- To increase the number of water bodies accessible to migratory fish, and tackle alterations to beds and banks. Initially, this will concentrate on the Dee, Spey and Deveron catchments where several water bodies are downgraded because of fish barriers.
- To reduce the impacts of abstraction, particularly on the Deveron, Spey and Buchan coastal catchments.
- To raise awareness of the importance of the water environment to north-east Scotland, and to let people know how their actions can protect and enhance it. This will require communication, events and projects across the whole north-east of Scotland.

To help with these priorities, the group has agreed several partnership and sub group working approaches to focus their efforts and develop pilot projects.

Rural diffuse pollution

The Area Advisory Group will develop closer links to the work of the Dee Catchment Management Partnership's diffuse pollution group. Farming and land user representatives within the Area Advisory Group will also help to advise on the priority catchment approach on diffuse pollution.

Point source pollution and abstraction

The Area Advisory Group will receive regular updates, as appropriate, from Scottish Water and SEPA on progress with planned investment in water treatment, sewerage and abstraction levels. Local authorities will also be asked to provide updates on their

planning policies which relate to water treatment and drinking water supply, and how these are working to tackle point source pollution and abstraction.

Fish barriers and alterations to beds and banks

We will form a small subgroup to review knowledge on fish barriers, prioritise action and seek funding to remove or mitigate barriers. This is likely to link with SEPA's annual data review meetings. Catchment survey work in priority catchments is also likely to identify where channelisation and other changes to beds and banks is an issue, and will help the group to develop priorities for action.

Awareness raising and helping to promote wider action

We will form a small communications task group to develop a programme of events, prepare a communication plan to improve public engagement with river basin planning.

Catchment management planning

We will agree working approaches with existing and new catchment management planning groups to ensure that we work together in an effective and positive way. This will include sharing data and information and ensuring that the objectives of catchment management plans and the north-east area management plan are linked.

The Area Advisory Group will receive updates from the subgroups and annual data reviews, which will enable them to monitor progress. They will produce a short briefing each year which will outline progress in delivering river basin planning in north-east Scotland, and highlight significant areas of achievement and issues of concern. Short action plans will be produced by subgroups to tackle any issues of concern.