Improving the quality of Scotland's water environment
West Highland area management plan
2010–2015

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

Executive summary

Tha an Geàrr-chunntas gnìomhach seo sa Ghàidhlig aig.
This Executive summary is available in Gaelic.

The purpose of this plan is to maintain and improve the quality of the water environment in the West Highland advisory group area. This includes the catchments of the Western Isles, Skye and the small isles and the western seaboard of mainland Scotland from Cape Wrath to Ardnamurchan, plus the coastal and estuarine waters surrounding them. This plan supplements the river basin management plan for the Scotland river basin district[1], and will help to deliver Water Framework Directive requirements. It focuses on local actions for the West Highland area and highlights the opportunities for partnership working to ensure that we all continue to benefit from improvements to, and protection of, the water environment.

This plan has been produced in partnership with the West Highland Area Advisory Group. The actions set out here will bring important benefits for many of the economically important activities in the area and the high number of designated sites.

In 2008, 92% of water bodies in the West Highland area were classified under the Water Framework Directive as being at good or high ecological status or potential. This plan aims to maintain this good or high ecological status and to secure continuous improvements in water bodies that are currently below good ecological status. The planned targets for improvement until 2027 are set out in Table 1. These targets are demanding and can only be achieved through partnership working by the West Highland Area Advisory Group and other stakeholders in the area.

Table 1: Condition of water bodies throughout the river basin planning cycles in the West Highland area

	2008	**2015**	**2021**	**2027**
% of water bodies at good or high ecological status or potential	92%	93%	94%	99%

The most important objectives for the West Highland area management plan are to:

- minimise the impacts of hydropower generation and public water supply provision on water abstraction from rivers and lochs;
- reduce the impacts of hydropower generation and public water supply provision on flow regulation and changes to natural flows in rivers and lochs;
- increase the number of water bodies accessible to migratory fish and restore water bodies whose beds and banks have been physically altered (eg by hydropower generation, aquaculture, road transport, public water supply provision, farming, commercial fishing and historical engineering);
- reduce the impacts of nutrient enrichment from diffuse pollution from livestock and mixed farming and sewage disposal;

[1] The full river basin management plans for the Scotland and the Solway Tweed river basin districts can be found on the SEPA website at: www.sepa.org.uk/water/river_basin_planning.aspx

- reduce the impacts of point source pollution from aquaculture;

- manage the presence and risk from introduction of invasive non-native species;

- investigate the reasons for the unfavourable status of areas protected for fresh water pearl mussels and put appropriate management measures in place;

- work together to ensure that there is no deterioration in the quality of the water environment of the West Highland area.

The West Highland area is dominated by rough, mountainous terrain and an abundance of marine and fresh waters which have dictated human settlement and activity. Important economic activities sustaining these fragile and remote communities include tourism, caged marine and freshwater salmon farming, shellfish farming and renewable energy production. Planning for sustainable water use in this area requires considering the needs of these communities at a time when they are under increasing economic pressure whilst, at the same time, preventing degradation of – and where necessary improving – the environment on which they depend.

Delivering improvements and ensuring that there is no deterioration will require actions from many partners. The Area Advisory Group will ensure that appropriate networks are set up and that the full range of stakeholders is involved in this process. The group will also oversee the progress of actions and improvements and then identify where new actions may be needed.

The river basin management plan for the Scotland river basin district, and the eight supplementary area management plans, describe how we are going to manage, improve and protect 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 planning cycle will begin.

A’ leasachadh inbhe àrainneachd uisge Alba Plana-riaghlaidh sgìre na Gàidhealtachd an Iar 2010–2015

A’ cur ri plana-riaghlaidh nan srathan aibhne airson sgìre srathan aibhne Alba

Geàrr-chunntas gnìomhach

’S e amas a’ phlana seo inbhe àrainneachd an uisge ann an sgìre buidheann comhairleachaidh na Gàidhealtachd an Iar a ghleidheadh agus a leasachadh. Tha seo a’ gabhail a-steach sgìrean nan Eilean Siar, An t-Eilean Sgitheanach agus na h-Eileanan Beaga, cladaichean taobh an iar tìr-mòr Alba, bhon Pharbh gu Àird nam Murchan, a thuilleadh air na h-uisgeachan mun chladach agus mu bheul aibhnichean timcheall orra. Tha am plana seo a’ dol an cois plana riaghlaidh nan srathan aibhne airson sgìre srathan aibhne Alba[2], agus cuidichidh e gu bhith a’ lìbhrigeadh iarrtasan Stiùireadh Frèam-obrach an Uisge. Tha e a’ bualadh air gnìomhachdan sgìre na Gàidhealtachd an Iar agus tha e a’ sealltainn nan cothroman airson obair chom-pàirteachail airson a bhith cinnteach gun cùm sinn uile oirnn a’ faighinn buannachd bho leasachadh agus bho dhìon àrainneachd an uisge.

Chaidh am plana a seo a chur ri chèile còmhla ri Buidheann Comhairleachaidh Sgìre na Gàidhealtachd an Iar. Bheir na gnìomhachdan a tha a’ nochdadh an seo buannachdan cudromach dha na cùisean cudromach eaconamach san sgìre agus dha gach làrach chomharraichte a th’ innte.

Ann an 2008, bha 92% de bhuidhnean uisge na Gàidhealtachd an Iar air an comharrachadh fo Stiùireadh Frèam-obrach an Uisge aig deagh inbhe no àrd inbhe a thaobh eag-eòlais agus comais. Tha am plana seo ag amas air an àrd inbhe eag-eòlais seo a ghleidheadh agus tuilleadh leasachaidh a thoirt air buidhnean uisge nach eil an-dràsta aig deagh ìre eag-eòlais. Tha na targaidean a tha san amharc airson leasachadh suas gu 2027 ann an Clàr 1. Tha dùbhlan sna targaidean seo agus cha ghabh an coileanadh ach le Buidheann Comhairleachaidh na Gàidhealtachd an Iar a bhith ag obrachadh còmhla ri com-pàirtichean eile san sgìre.

Clàr 1: Staid nan uisgeachan tro chuairtean planaidh nan srathan aibhne ann an sgìre na Gàidhealtachd an Iar

	2008	2015	2021	2027
% aig deagh inbhe no àrd inbhe a thaobh eag-eòlais agus comais	92%	93%	94%	99%

Is iad na h-amasan as cudromaiche de phlana stiùiridh sgìre na Gàidhealtachd an Iar:

- idh cruthachadh cumhachd uisge agus solarachadh-uisge poblach air na tha de dh’uisge ga thoirt à aibhnichean agus lochan a lùghdachadh:

[2] Chithear na planaichean slàn airson stiùireadh srathan aibhne airson Alba agus sgìre srathan aibhne Uisge Thuaidh air làrach-lìn SEPA aig: www.sepa.org.uk/water/river_basin_planning.aspx

- buaidh cruthachadh cumhachd uisge agus solarachadh-uisge poblach air riaghladh sruthaidh agus atharrachadh ann an sruthadh nàdarra ann an aibhnichean agus lochan a lùghdachadh;

- an àireamh sgìrean uisge air an ruig iasg imrich a chur am meud agus ùrachadh a dhèanamh air uisgeachan far an deach an grunnd no na bruaichean aca atharrachadh gu fiosaigeach (me le cruthachadh cumhachd dealain, àiteachas uisge, còmhdhail rathaid, solar-uisge poblach, tuathanachas, iasgach malairteach agus innleadaireachd eachdraidheil);

- a' bhuaidh aig leasachadh mathachaidh bho gach seòrsa truaillidh air sgàth bheathaichean, tuathanachas measgaichte agus cur às de dh'òtrachas;

- a' bhuaidh aig truailleadh bho ionad àiteachas uisge a lùghdachadh;

- làthaireachd agus cunnart bho bhith a' toirt a-steach ghnèathan sgaoilteach neo-dhùthchasach a riaghladh;

- na h-adhbharan airson inbhe mì-fhàbharrach nan sgìrean a tha air an dìon airson feusgain neamhnaid ann am fìor-uisge a rannsachadh agus dòighean riaghlaidh iomchaidh a stèidheachadh;

- obrachadh còmhla airson a bhith cinnteach nach tèid càileachd àrainneachd uisge sgìre na Gàidhealtachd an Iar a mhilleadh air dhòigh sam bith.

'S e talamh garbh le beanntan as motha a th' ann an sgìre na Gàidhealtachd an Iar, le sàl agus fìor-uisge gu leòr, a thug buaidh air tuineachadh agus air obair dhaoine. Am measg nan gnìomhachdan eaconamach a tha a' cumail suas nan coimhearsnachdan lag, iomallach seo tha turasachd, àrach bhradan ann an cèidsichean sa mhuir agus ann am fìor-uisge, àrach maoraich agus cruthachadh lùth ath-nuadhachail. Airson planadh cleachdadh seasmhach uisge san sgìre seo, feumar beachdachadh air feumalachdan nan coimhearsnachdan seo aig àm nuair a tha iad fo chuideam mòr eaconamach ach, aig an aon àm, bacadh a chur air milleadh na h-àrainneachd air a bheil iad an crochadh agus, far a bheil sin iomchaidh, ga leasachadh.

Airson leasachadh a dhèanamh, agus airson a bhith cinnteach nach tig milleadh sam bith, bidh feum air co-obrachadh iomadh com-pàirtiche. Nì Buidheann Comhairleachaidh na Sgìre cinnteach gun stèidhichear lìonraidhean iomchaidh agus gum bi an luchd-com-pàirteachaidh gu lèir an sàs sa phròiseas seo. Bidh am buidheann cuideachd a' cumail sùil air adhartas ghnìomhachdan agus leasachaidhean agus an uair sin comharraichidh iad far a bheil feum air gnìomhachdan ùra.

Tha iomradh ann am plana riaghlaidh nan srathan aibhne airson sgìre srathan aibhne Alba, agus na h-ochd planaichean-riaghlaidh sgìreil a bharrachd, air mar a tha sinn a' dol a riaghladh, a leasachadh agus a dhìon ar n-uisgeachan thar nan sia bliadhna a tha romhainn. Ruithidh am plana-riaghlaidh sgìreil seo eadar 2010 agus 2015. Thèid ath-sgrùdadh an uair sin agus tòisichidh an ath chuairt planaidh airson sia bliadhna eile.

Table of contents

The West Highland Area Advisory Group

This plan has been produced in partnership with the West Highland Area Advisory Group, which is made up of representatives from the following organisations:

- Association of Scottish Shellfish Growers (representing shellfish growing interests)
- CoastHebrides
- Comhairle nan Eilean Siar
- Forestry Commission Scotland
- National Farmers' Union Scotland
- Outer Hebrides Fisheries Trust (representing Fishery Trusts)
- Royal Society for the Protection of Birds
- Scottish Crofting Federation
- Scottish Environment Protection Agency (SEPA)
- Scottish Government Rural Payments and Inspections Directorate
- Scottish Natural Heritage (SNH)
- Scottish Rural Properties and Business Association
- Scottish and Southern Energy (SSE)
- Scottish Water
- Stornoway Port Authority (2006–2007) and Ullapool Harbour Trust (2008–) (representing British Ports Association)
- The Highland Council
- Wester Ross District Salmon Fishery Board (representing District Salmon Fishery Boards)
- Western Isles Aquaculture Association (representing aquaculture interests) (2006 – 2008)

SEPA would like to thank these group members and the other organisations who have worked to prepare this first area management plan for the water environment of the West Highland area.

Introduction

Purpose of this plan

This plan aims to maintain and improve the quality of the rivers, lochs, estuaries, coastal waters and groundwater areas which make up the water bodies of the West Highland area. It is a local action plan which supplements the river basin management plan for the Scotland river basin district (www.sepa.org.uk/water/river_basin_planning.aspx) and which will help to deliver the Water Framework Directive objectives.

The river basin planning process must link to, and reflect the requirements of, other plans and processes. These include strategies developed for flood management and climate change. Further detail can be found in Chapter 3 of the river basin management plan for the Scotland river basin district (www.sepa.org.uk/water/idoc.ashx?docid=fbcdf339-4d78-4ccb-a319-0277f297912d&version=-1). Links will also be made at a local level, but are not discussed in detail here.

This plan, which has been produced in partnership with the West Highland Area Advisory Group, focuses on local actions for the West Highland area and highlights the opportunities for partnership working to ensure that we all benefit from improvements to and protection of the water environment. This plan runs from 2009 to 2015, when it will be reviewed and the next six year cycle of planning will begin.

In 2008, 92% of all water bodies in the West Highland area were classified as being at good or high ecological status or potential. This plan sets out specific targets for securing improvements in the West Highland area and includes actions that will both prevent deterioration and secure improvement where water bodies are at less than good ecological status or potential. The section of this document on 'The water environment and achieving the environmental improvements' gives more information how ecological status is measured and targets set.

This plan describes how the vast majority of the water environment in the West Highland area is of good or high quality. This is a key requirement for many of the economically important activities of the area such as angling, fin fish and shellfish farming and water based recreation and tourism. Environmental quality is also reflected in the high number of sites designated to protect important features such as shellfish growing, freshwater fish, bathing waters, drinking waters and nature conservation.

What area does this plan cover?

The West Highland advisory group area (see Map 1) covers the catchments of the Western Isles, Skye and the small isles and the western seaboard of mainland Scotland from Cape Wrath to Ardnamurchan. The area includes adjacent estuarine and coastal waters out to three nautical miles. It also includes groundwater which provides flow in many rivers.

A high quality water environment is central to supporting and sustaining the economic growth of West Highland as well as to providing general amenity and diverse opportunities for recreation. Sea lochs such as Loch Nevis, Loch Seaforth and Loch Broom provide an excellent environment for sea fishing, fish farming,

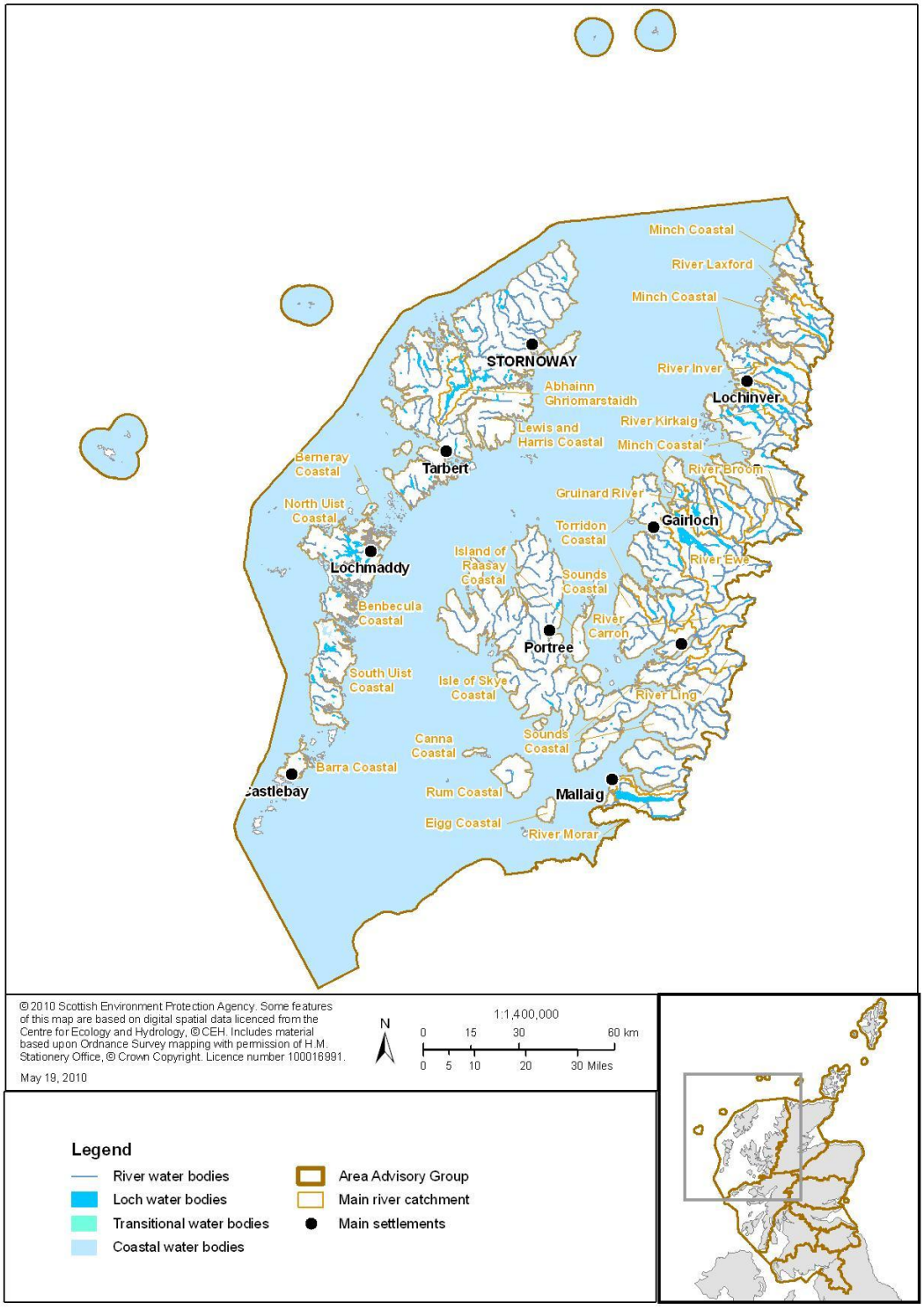
shellfish growing and angling, while some of the larger freshwater systems such as Loch Morar, Loch Maree and Loch Langavat support important salmon and trout fisheries.

Land-based activities include extensive cattle and sheep farming, crofting, the management of sporting estates for deer and angling, forestry, sea fishing, community angling and shellfish growing. Tourism is now the most important economic sector for the area and activities include touring, walking, climbing, mountain biking, sailing, surfing and wildlife watching.

The last 20 years have seen the establishment and expansion of the caged marine and freshwater salmon farming industry. The shellfish farming industry also has an important base in the West Highland area. Both industry sectors are crucially important to the economy of fragile remote communities, and the quality of the water in the West Highland area is fundamental to the quality and marketing of this fresh produce.

The West Highland area has several large-scale hydropower schemes: Kerry, Storr Lochs, Skye, Giosla and Chliostair (with some water also diverted from the West Highland area to the Conon and Garry schemes), plus growing numbers of smaller, ‘run of river’ schemes and some recently installed onshore wind farms.

The West Highland area contains some of the remotest communities in Scotland and it has one of the lowest population densities in Western Europe. Providing services such as drinking water and sewage disposal is therefore challenging.



Map 1: West Highland advisory group area showing the main catchments

How to use this plan

This plan is for the West Highland 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 co-ordinates the delivery of the river basin management plan for the Scotland river basin district (www.sepa.org.uk/water/river_basin_planning.aspx) within the West Highland advisory group area. The Scotland river basin management plan also includes several chapters explaining the different parts of the river basin planning process. 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, Scotland river basin district scale.

This plan has three key components, all available on the SEPA website at www.sepa.org.uk/water/river_basin_planning.aspx:

1. **Area management plan summary** (this document) is an overview of the water environment in the West Highland advisory group area including classification, objectives, key measures and an outline of the work plan for the area advisory group for the next year.

2. **Catchment summaries** provide information on classification, pressures, measures and objectives for each catchment. More detailed catchment profiles may be produced for some catchments if the area advisory group needs such information to support particular projects.

3. **Action plan** with information about how the West Highland Area Advisory Group will work together to deliver the area management plan and a record of where new measures are being developed. This will be kept as a live document during the first river basin planning cycle.

The organisations that are part of the West Highland Area Advisory Group helped to develop this plan. They are responsible for sharing the information contained in this plan with a wider range of stakeholders to encourage them to implement the actions required in the West Highland 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 plan, not just SEPA.

A wider forum has also been established. The forum is open to the public and provides an opportunity for a wider group of stakeholders to be involved in planning developments.

The water environment and achieving the environmental improvements

This section summarises the condition of the water environment in the West Highland area, the improvements we plan to achieve and the key pressures and impacts we need to address. This information is included in a more detailed form in the catchment summaries that are available alongside this document on the SEPA website.

Information on individual water bodies can be accessed through the web based interactive map on SEPA's website at:
www.sepa.org.uk/water/river_basin_planning.aspx

Information on the classification system, pressures, 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 river basin district plan 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 in the West Highland area vary widely. To reflect this variation, SEPA has divided the water environment into 598 water bodies (286 rivers, 88 lochs, 203 coastal, no estuarine water bodies) and 21 groundwater bodies. Classifying the condition (ecological status) of each water body provides a picture of where the water environment is in good condition and where improvements need to be made (see Table 1 and Map 2).

The classification of natural surface water bodies (not including groundwaters) describes by how much their condition, or status, differs from near natural conditions. For surface water bodies, ecological status is divided into five classes: high, good, moderate, poor and bad. This encompasses the spectrum from water bodies in a near natural condition which are at high ecological status to those whose ecological quality have been severely damaged and which are at bad ecological status.
The objectives of the Water Framework Directive are to improve any failing water bodies to good or high ecological status and to prevent deterioration of all water bodies. In the West Highland area 514 (92%) natural surface waters are at good or high ecological status. The West Highland area has 228 (38%) water bodies at high ecological status, the highest proportion of all the advisory group areas in Scotland.

Classification assesses the ecological status of all water bodies over a certain size (rivers with a catchment area of more than 10 km^2 and lochs which have a surface area greater than 0.5 km^2) and all estuaries and coastal water bodies. Rivers and lochs smaller than the size threshold (small water bodies) are not classified. However, actions that partners are taking to protect or improve any aspect of the water environment are of interest to the Area Advisory Group.

In the West Highland area, 514 (92%) natural surface waters are at good or high ecological status or potential and all 21 groundwaters are at good status. It also has

a large number of protected areas, of which a high proportion are meeting their required standards.

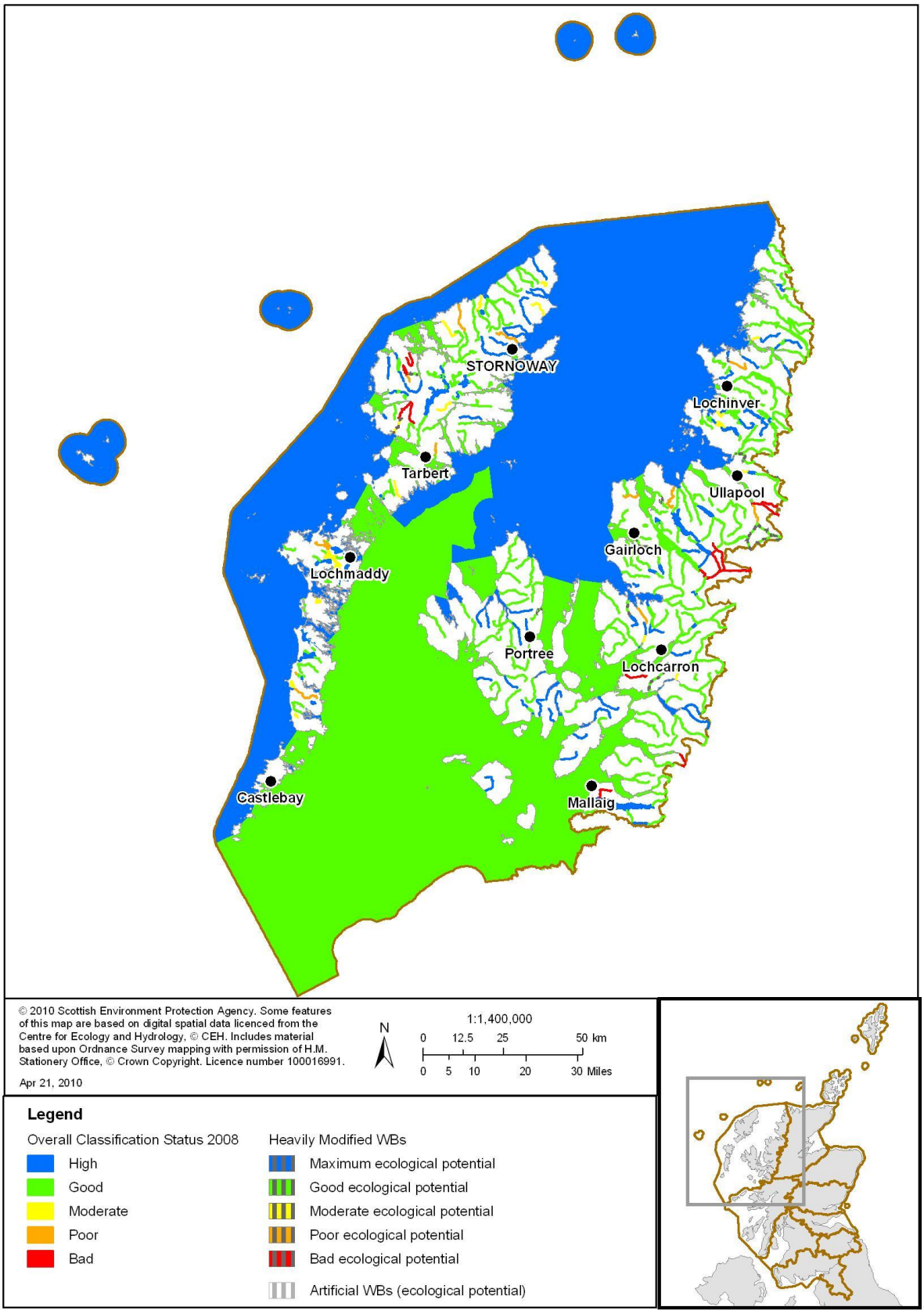
In the West Highland area,18 (3%) surface water bodies have been substantially changed in character for important purposes such as hydropower generation, navigation, land drainage or water storage for drinking water supply. These are designated as heavily modified water bodies. One further water body (<1%), the Benbecula Main Drain, is artificial. The classification of heavily modified and artificial water bodies describes 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 its use. For more information on heavily modified and artificial water bodies, see Chapter 4 of the Scotland river basin management plan (www.sepa.org.uk/water/idoc.ashx?docid=b10ee280-15b9-40b9-a608-bc8187c335f8&version=-1). In the West Highland area, 16 (89%) heavily modified water bodies and the Benbecula Main Drain are at good or maximum ecological potential.

The classification of groundwater describes whether or not it is polluted, and whether or not the volume of any water being abstracted from it is sustainable without resulting in 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. In the West Highland area all 21 ground waters are at good status.

Table 2: Condition of surface waters and groundwater in the West Highland advisory group area in 2008

2008 condition	Number of water bodies				
	All water bodies	Surface waters			Groundwater[3]
		Natural	Heavily modified	Artificial[4]	
High/Maximum	228	228	0	0	
Good	324	286	16	1	21
Moderate	20	19	1	0	
Poor	17	16	1	0	
Bad	9	9	0	0	
Totals	598	558	18	1	21
Proportion good or better (%)	92%	92%	89%	100%	100%

[3] Bodies of groundwater are classed as either good status or poor status.
[4] Artificial water bodies are man-made water bodies, such as many canals.



Map 2: Overall surface water classification for the West Highland advisory group area

Pressures and risks

The main reasons for not achieving good ecological status are described as pressures. The key pressures and risks affecting the West Highland area are:

- abstraction of water from rivers and lochs for use in hydropower generation and public water supply;
- flow regulation (changing the natural flows in rivers and lochs) by hydropower generation and public water supply;
- alterations to beds, banks and shores ("morphology") and barriers to fish passage from a number of activities including hydropower generation, aquaculture, road transport, public water supply, farming, commercial fishing and historical engineering;
- nutrient enrichment from diffuse pollution (pollution coming from several dispersed sources) from livestock and mixed farming and sewage disposal;
- point source pollution from aquaculture;
- the presence, or the risk posed by introduction of, invasive non-native species.

This assessment has mainly been based on evaluating condition against standards to give a broad understanding of the main pressures across the area. There may be cases, in particular for diffuse source pollution, where there are several similar pressures on one water body and some source apportionment work is required to establish the main source. This assessment does not include all impacts and there are other issues that will also need to be addressed through river basin management planning.

More information on the pressures, actions and targets in each catchment is included in the catchment summaries. Detailed information for each water body is available in the water body information files on the interactive map. Both are available on SEPA's website at: www.sepa.org.uk/water/river_basin_planning.aspx.

Objectives for the water environment

The vast majority of the West Highland area's water environment is at good or high ecological status, as detailed in Table 2. The objectives of the Water Framework Directive are to restore the water environment where it is currently less than good ecological status or potential and to ensure that there is no deterioration of any water bodies.

The overall goal of the Scotland river basin district is for 97% of water bodies to be at good or high ecological status by 2027. In the West Highland area we aim to make improvements so that 588 (99%) water bodies are at good or high ecological status by 2027.

Restoring the water environment to good ecological status will take time so improvements have therefore been prioritised over the three river basin planning cycles. For the small proportion (1%) of waters for which achieving good ecological status by 2027 is not feasible, our aim is that all reasonably achieveable

improvements will be made. Comprehensive progress reviews 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 while Map 3 shows the shows the overall surface water classification for the West Highland area. The phasing has been designed so that the pace of improvement provides the time needed to develop and implement the necessary technical solutions and to make the required investments and adjustments without creating disproportionate financial burdens.

Table 3: Condition of water bodies throughout the river basin planning cycles in the West Highland area

	Total	**Number and proportion of water bodies at good or high ecological status (%)**				**Number and proportion (%) of water bodies remaining less than good by 2027**
		2008	**2015**	**2021**	**2027**	
All water bodies	598	552 92%	558 93%	562 94%	588 99%	4 1%
Rivers natural	274	243 89%	249 91%	250 92%	269 99%	4 1%
Rivers HMWB	11	10 91%	10 91%	10 91%	11 100%	0
Rivers artificial	1	1 100%	1 100%	1 100%	1 100%	0
Lochs natural	81	68 84%	70 86%	73 90%	81 100%	0
Lochs HMWB	7	6 86%	6 86%	6 86%	7 100%	0
Estuaries	0	0	0	0	0	0
Coastal waters natural	203	203 100%	203 100%	203 100%	203 100%	0
Coasts - HMWB	0	0	0	0	0	0
Ground waters	21	21 100%	21 100%	21 100%	21 100%	0

Lower (less stringent) objectives than good ecological status

Less stringent objectives have been set for one water body in West Highland where we believe that good ecological status cannot be achieved even by 2027. The Abhainn Ruadh has less stringent objectives because its water quality is affected by acidification as a result of pollution from 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.

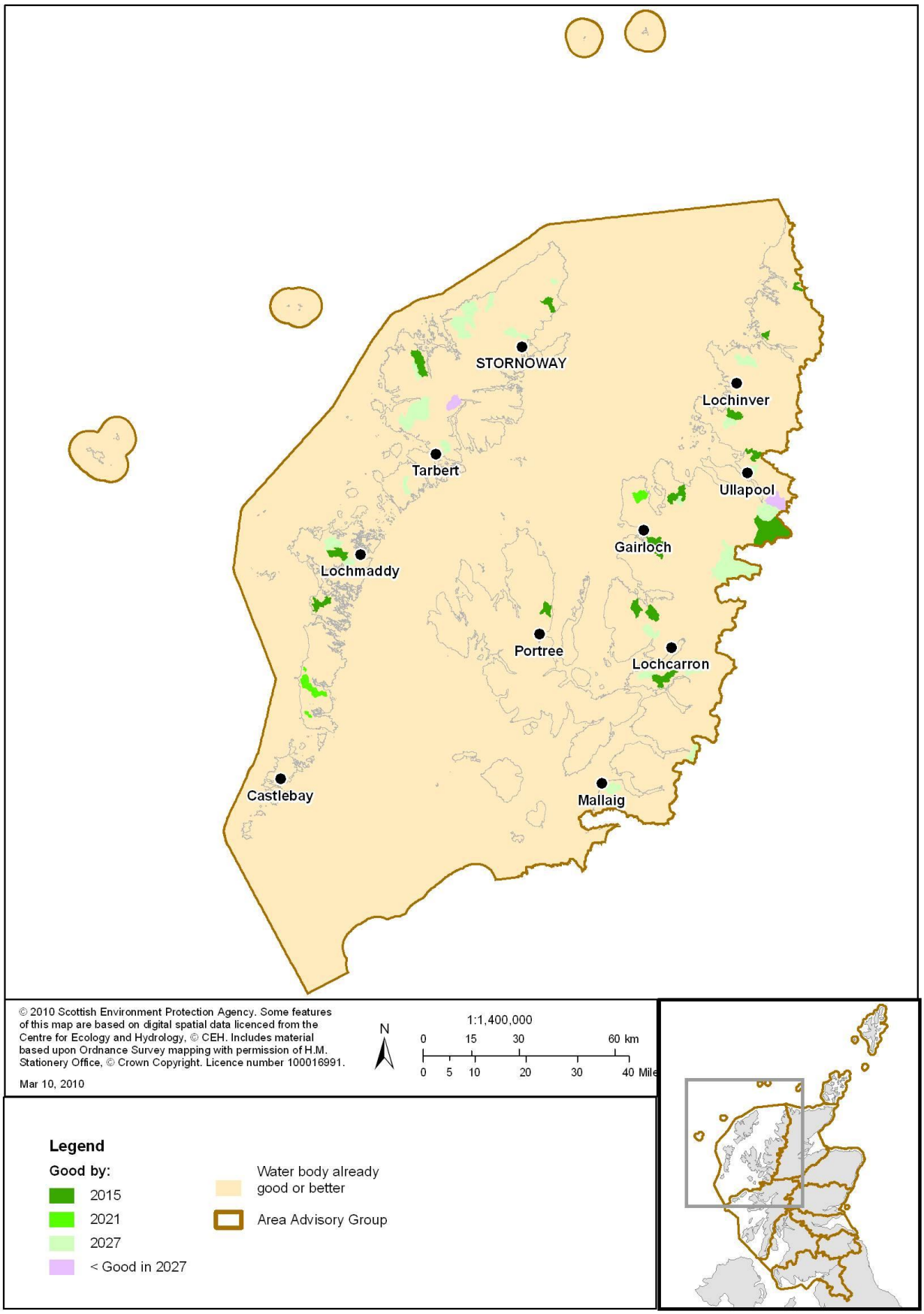
Water bodies where deterioration of status has been permitted

We have allowed exemptions from the objective of preventing deterioration in status for three rivers in the West Highland area. Deterioration from good to poor ecological status has been permitted on the Allt a Chonais, and from moderate to poor

ecological status on the River Lael. This is to enable abstraction and impoundment of water for hydropower to benefit sustainable development. Appropriate mitigation is in place on both rivers, with the protection of river flows to prevent loss of habitat and provision of higher flows to facilitate fish movements. In both cases, no significantly better environmental option has been identified.

Deterioration from good to moderate ecological status has been permitted on the Hamara River to enable abstraction and impoundment for public drinking water supply for the benefits to human health. Having evaluated the benefits of the proposal to sustainable development as well as the benefits of preventing status deterioration, SEPA considered that:

- all practicable steps had been taken to mitigate the adverse impacts;
- the benefits to human health outweighed the adverse impacts;
- the beneficial objectives of the scheme could not be achieved by other means;
- the application of an exemption from WFD objectives would be consistent with the implementation of other EU environmental legislation.



Map 3: Phased improvements in surface water quality over the three planning cycles

Protected area objectives

Many water bodies are also part of protected areas identified as requiring special protection because of their sensitivity to pollution or their particular economic, social or environmental importance. A large proportion of the West Highland area has been designated as a protected area for waters that:

- are used for drinking water supply;
- support economically significant shellfish (designated shellfish waters) or freshwater fish stocks;
- are designated as bathing waters;
- support habitats or species of international conservation importance;
- are sensitive to nutrient enrichment.

The objectives for these include any additional protection needed to achieve the purposes for which the protected area was established.

In the West Highland area, many protected areas are already achieving the goals for which they were established; the objective for such areas is to protect them from deterioration. Further environmental improvements are needed for other areas that are currently not achieving their objectives – planned improvements to such protected areas are summarised in Table 4.

Table 4: Planned improvements to protected areas in the West Highland area

Protected area	**Total**	**Number and proportion (%) of protected areas achieving the goals for which they were established**			
		2008	**2015**	**2021**	**2027**
Designated Shellfish Growing waters	22	16 73%	16 73%	16 73%	2 100%
Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) (that are water dependant) *	48 total (30 SACs 18 SPAs)	41 87 %	42 88%	45 94%	48 100%

Note to Table 4

The projected improvements in protected areas for economically important shellfish refer to objectives for bacteria that can contaminate shellfish flesh and prevent harvested shellfish being marketed unless first treated in a purification centre. All the water quality conditions required to support shellfish life and growth are already being achieved.

*Included within the sites goal of 'favourable condition' are sites that are 'unfavourable recovering'. This is because some features will take a long time to recover even when all appropriate measures are in place. When a feature is reported as 'unfavourable recovering', everything has been done to allow a feature to recover, but more time is needed before it could be reported as being in favourable condition. For some sites, research needs to be undertaken to determine the nature of the pressure before measures can be identified.

In addition:

- Achmelvich, the only designated bathing water in West Highland, was classified as excellent in 2008;

- all 118 currently designated drinking water protected areas in the West Highland area (which includes the 21 groundwaters) are meeting appropriate standards with none at risk of deterioration. Drinking Water Protected Areas are currently under review and any changes to designations will be reflected in updates of this plan;

- mandatory water quality standards were achieved for all 14 waters designated for freshwater fish in the West Highland area.

Shellfish growing waters and diffuse pollution
In most cases the reasons for the current shellfish waters failures are not clear. Further research, including a review of the Food Standards Agency Sanitary Surveys and possibly source tracking studies, is required to establish the pressures on these protected areas and therefore the measures required to improve and allow them to achieve the required standards. This work will be done as part of the planned diffuse pollution actions planned which are outlined below.

Further information on protected areas is available in Chapter 5 of the Scotland river basin management plan (www.sepa.org.uk/water/idoc.ashx?docid=af1b20d6-895f-4d0e-b2f6-76f80d8ad112&version=-1) and in the West Highland catchment summaries.

Actions planned to achieve our objectives

River basin management planning requires us to establish a programme of action, or measures, to improve water bodies that are not currently at good or high ecological status and to protect all water bodies from deterioration.

This plan will deliver improvements through a combination of regulation, investment, awareness raising and guidance. The measures in the Scotland river basin management plan automatically feed into this area management plan for the West Highland area. Those most relevant to the West Highland area are described below and further information can be found in Chapter 3 of the Scotland river basin management plan (www.sepa.org.uk/water/idoc.ashx?docid=fbcdf339-4d78-4ccb-a319-0277f297912d&version=-1). Also described below are more local measures to tackle issues that require a partnership approach.

The action plan which accompanies this document summarises measures which will be delivered by a local partnership approach through the West Highland Area Advisory Group. More specific information on the measures being developed in the West Highland area is included in catchment summaries and, for individual water bodies, on the water body information sheets on the interactive map at www.sepa.org.uk/water/river_basin_planning.aspx. These will be updated as more measures are developed and implemented.

Some of the key national and local measures that will deliver improvements in the West Highland area are described below.

Actions to address changes to flow and/or the amount of water in rivers and lochs

Regulation

SEPA is working closely with Scottish Water and hydropower operators to reach agreements on how they can provide improved flow to affected rivers by minimising leakage, waste and overflows of abstracted water, changing the pattern of abstraction or reducing net abstraction to meet required standards. SEPA is the lead authority for the Controlled Activities Regulations (CAR)[5] to achieve these measures, but will also work with the Fish and Fisheries Advisory Group[6] to produce guidance on appropriate mitigation measures.

Investment

Scottish Water aims to reduce water supply demands in areas currently under pressure through action on efficiency measures and the use of water saving technology. Scottish and Southern Energy aims to redistribute flows within the Giosla system in order to achieve good ecological status and good ecological potential in the affected water bodies.

Planning

SEPA and Scottish Water will work with The Highland Council and Comhairle nan Eilean Siar 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.

Action to address alterations to beds and banks, and barriers to migratory fish movement

Regulation

SEPA will work to review and enforce the requirements for provision of fish passage and the necessary flows to support this in existing licences granted under the Controlled Activities Regulations (CAR).

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. For example, in the West Highland area, restoration funding will be used to identify (and, if appropriate, implement) possible actions to remove barriers to fish passage in the Loch nan Geireann catchment on North Uist.

Forestry

[5] The Water Environment (Controlled Activities) (Scotland) Regulations 2005.

[6] SEPA has created a Fish and Fisheries Advisory Group to provide advice to SEPA within the Scotland and Solway Tweed river basin districts on monitoring and classification of fish populations and the protection of fish populations and fisheries interests when regulating activities which affect the water environment. More information about the group can be found here: http://www.sepa.org.uk/water/river_basin_planning/fish_and_fisheries_ag.aspx

Forestry Commission Scotland are improving water bodies affected by forestry pressures through measures including removal of non-native conifers close to the bank side and establishing well structured native vegetation cover to form buffer zones along banks in compliance with relevant legislation and guidance (including the Forest & Water Guidelines). Forestry Commission Scotland and the Scottish Government are leading on ensuring similar measures can be implemented on privately owned forest estates. In the West Highland area partners are working together to raise awareness of these guidelines and funding opportunities to forest managers of both estate and private land.

Local partnership working
The West Highland Area Advisory Group has an important role to play in reviewing the local actions required to address these pressures and consider the process for removal or mitigation. This will involve working with landowners, and with The Highland Council for road culvert pressures, to establish what measures can be implemented and the timescales for implementation. We will also work together to identify funding for these measures such as the SEPA restoration fund or the Scottish Rural Development Program (SRDP). The group will consider options for the restoration of any rivers and burns straightened for agriculture while balancing land managers' needs with those of the water environment.

Actions to address nutrient enrichment from diffuse pollution from rural land use

National plan for managing the rural diffuse pollution in Scotland
There is a two tier approach to the management of rural diffuse pollution developed by a partnership of national organisations called the Diffuse Pollution Management Advisory Group. Further information is available at:
www.sepa.org.uk/water/river_basin_planning/diffuse_pollution_mag.aspx#DP_Plan
and www.sepa.org.uk/water/river_basin_planning/dp_priority_catchments.aspx

The approach consists of:

(a) a national awareness raising campaign to improve water bodies affected by diffuse pollution and prevent further deterioration, including promoting the uptake of the diffuse pollution General Binding Rules;

(b) a targeted approach in 14 catchments where the extent of the diffuse pollution pressure on the water environment requires a more focused effort. Whilst focusing on these catchments for diffuse pollution, the mitigation of other impacts on the water environment will also be considered, such as changes to beds and banks, abstractions, flooding and invasive non-native species.

Local application of the national awareness campaign
To ensure there is no deterioration of the water environment in the West Highland area due to rural diffuse pollution, the Area Advisory Group has a role to play in the local promotion of the national diffuse pollution awareness raising campaign (including both forestry and agricultural sectors).

The targeted approach in the West Highland area
None of the 14 diffuse pollution priority catchments being focused upon in the first river basin planning cycle [described in (b) above] are in the West Highland area. However, Barra coastal, Isle of Skye coastal, Lewis and Harris coastal, Minch

coastal, North Uist coastal and Sounds coastal are candidate priority catchments in cycle two. It is particularly important that we raise awareness of the General Binding Rules for diffuse pollution in these catchments.

Research to establish sources of diffuse pollution
SEPA and the Area Advisory Group can play a role in facilitating the research which is required to establish the source of the diffuse pollution downgrading the water environment and, in particular, in waters protected for shellfish growing. This will allow us to prepare for the targeted approach on priority catchments in future cycles.

Action to address point source pollution from aquaculture

Regulation
SEPA will work to review the impacts of discharges from aquaculture activities and where necessary, having balanced the needs of industry and the water environment, alter the conditions of CAR licences which are causing point source pollution pressures.

Action to address the presence, prevention and spread of invasive non-native species

National actions for prevention, control and eradication
There are several actions that are being co-ordinated at a national level to manage the risk of invasive non-native species (INNS) to our water environment. These include the prevention and early detection of INNS introductions, rapid action to prevent spread and control, and eradication of established populations. A supplementary plan for INNS management is being developed and will be available on the SEPA website.

Local co-ordination of action
The West Highland Area Advisory Group has a role to play in the co-ordination of INNS management at a local level. Management responsibility is shared by several organisations and, as a result, there are many actions that could usefully be carried out at a local level. These include sharing information on current control and eradication, identifying gaps, encouraging co-ordination of actions and implementation across catchments, raising awareness of nationally produced material, data collection processes and protocols for rapid reaction and encouraging the sharing of good practice and rapid response protocols. Preventing the introduction and spread of invasive non-native species is particularly important in the West Highland area as the area currently has relatively few, relatively recent introductions. Any local co-ordination of work must link with the Highland Invasive Species Forum and the Western Isles Local Biodiversity Action Plan Steering Group as appropriate.

Action to promote and implement a catchment based approach to improving our water environment

The Area Advisory Group will promote and develop catchment management approaches, where locally relevant, through local partnership working.

Action to improve the management of sites protected for freshwater pearl mussels

National research will take place to investigate the reasons for the unfavourable condition of areas protected for fresh water pearl mussels

Local investigations will be carried out and appropriate management measures put in place through local partnership working.

Putting the plan into action – 2010

This area management plan identifies the measures to be delivered in the first river basin planning cycle. The Area Advisory Group has also initially identified five key areas of work where a partnership approach to focusing on pressures on the area's water environment will be particularly useful.

The task groups identified below will be established and will include the relevant area advisory group members and others. Where there is an existing group in the area, we will work with them to deliver river basin planning objectives. The frequency of meetings and longevity of the task group will depend on the actions to be taken. The Area Advisory Group will retain an overview role and the task groups will report back on progress to the full group.

It is suggested that, for the West Highland mainland and Skye, task groups 1, 2 and 3 set out below are linked with similar task groups being set up for the North Highland advisory group area. It is also suggested that task groups 1, 2 and 3 are developed for the Western Isles utilising existing groups where they exist, such as the Western Isles Local Biodiversity Action Plan Steering Group.

Task Group 1: Alterations to beds and banks of natural water bodies including barriers to fish migration

This task group will review information on pressures on beds and banks of natural water bodies, action and funding required and facilitate discussions to develop these actions.

Task Group 2: Rural diffuse pollution

This task group will co-ordinate local awareness raising and will facilitate discussion on preparation needed for action in future river basin planning cycles. The group will develop a research programme to investigate pressures causing protected shellfish waters to fail, in preparation for the priority catchment work in later cycles (include data from Food Standards Agency in this research).

Task Group 3: Invasive non-native species

This task group will co-ordinate local action to manage the presence and risk from the introduction of invasive non-native species, linking very closely to the work of the Highland Invasive Species Forum and the Western Isles Local Biodiversity Action Plan Steering Group as appropriate.

Task Group 4: Catchment restoration

This task group will promote, develop and implement catchment–wide projects with the aim of improving or preventing deterioration of water body status at a catchment scale.

Task Group 5: Fresh Water Pearl Mussels

This task group will investigate the reasons for the unfavourable condition of areas protected for fresh water pearl mussels and put in place appropriate management measures

A work plan has been developed to guide the work of the Area Advisory Group during the year. This will be used to assess progress and will be annually updated and can be found at:
www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/west_highland.aspx

The Area Advisory Group will have a continued role in monitoring the plan's implementation through an annual report on progress of all actions, informed by an annual classification update.

The Area Advisory Group will continue to help identify actions needed in the West Highland area and to translate nationally agreed actions into local work. They will co-ordinate action and identify gaps where key pressures have been identified, but no action agreed, and consider how best to tackle such gaps.