Improving the quality of Scotland’s water environment
Orkney and Shetland 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 Orkney and Shetland. 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 Orkney and Shetland 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 Orkney and Shetland Area Advisory Groups. The actions set out here will bring important benefits for drinking water, flood prevention, natural habitats and mitigating the impacts of climate change.

In 2008, 90% of water bodies in Orkney and Shetland were classified under the Water Framework Directive as being at good or high ecological status, and this plan aims to maintain these water bodies and to secure improvement in the ecological status of water bodies which are not yet at good ecological status. The planned improvement targets until 2027, set out in Table 1, are demanding and can only be achieved through partnership working by the Area Advisory Group and other stakeholders.

Table 1: Overview of planned improvements in the Orkney and Shetland advisory group area, 2010–2027

<table>
<thead>
<tr>
<th>% of water bodies at good or high ecological status</th>
<th>2008</th>
<th>2015</th>
<th>2021</th>
<th>2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orkney</td>
<td>86%</td>
<td>87%</td>
<td>88%</td>
<td>100%</td>
</tr>
<tr>
<td>Shetland</td>
<td>93%</td>
<td>97%</td>
<td>98%</td>
<td>100%</td>
</tr>
<tr>
<td>Orkney and Shetland total</td>
<td>90%</td>
<td>93%</td>
<td>94%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The most important issues for the Orkney and Shetland advisory group areas are:

- diffuse source pollution linked to sewage disposal, farming and marine transport;
- point source pollution from sewage treatment, predominantly affecting coastal waters;
- alterations to beds and banks, primarily relating to agriculture;
- water abstraction and flow regulation for drinking water.

Specific priorities for Orkney and Shetland are discussed in more detail throughout this document. Delivering these improvements will require actions from many partners. The Area Advisory Groups will ensure that appropriate networks and stakeholders are involved in this process. The group will also oversee the development of new actions and monitor all actions 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. These plans will run from 2010 to 2015, when they will be reviewed and the next six year cycle of planning will begin.
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The Orkney and Shetland Area Advisory Groups

This plan has been produced by the Orkney and Shetland advisory groups, which are made up of representatives from the following organisations.

- BP at Sullom Voe
- Lerwick Port Authority
- National Farmers Union Scotland
- Orkney Islands Council
- Orkney Trout Fishing Association
- Royal Society for the Protection of Birds
- Scottish Crofting Foundation
- Scottish Environment Protection Agency
- Scottish Government Rural Payments and Inspections Department
- Scottish Natural Heritage
- Scottish Rural Property and Business Association
- Scottish Water
- Seafood Shetland
- Shetland Anglers Association
- Shetland Aquaculture
- Shetland Islands Council
- Shetland Sustainable Marine Environment Initiative

SEPA would like to thank these group members and other organisations who have worked to prepare this first area management plan for Orkney and Shetland.
Introduction

Purpose

This plan aims to maintain and improve the ecological status of the rivers, lochs, estuaries, coastal waters and groundwater areas in Orkney and Shetland. 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 Orkney and Shetland and highlights the opportunities for partnership working to ensure that we all benefit from improvements to the water environment.

This plan will run from 2009 to 2015, when it will be reviewed and the next six year cycle of planning will begin.

What areas does this plan cover?

The plan has been produced in partnership with Area Advisory Groups in Orkney and Shetland. Although this single document covers both island areas, Orkney and Shetland have separate advisory group meetings, and have different pressures and priority issues. Separate text and statistics for Orkney and Shetland are used throughout this document to ensure that it is useful at a local level.

The Orkney and Shetland advisory group areas include all burns and lochs on Orkney and Shetland, plus wetlands, groundwater and coastal waters out to a nautical limit of three miles (see Map 1). In Orkney, the advisory group area includes settlements such as Kirkwall and Stromness, as well as international oil terminal facilities at Flotta. The Shetland Area Advisory Group includes the settlements of Lerwick, Scalloway, Brae and the Sullom Voe oil terminal.

In both Orkney and Shetland, many burns and lochs are too small for classification under the Water Framework Directive, which only considers river catchments of over 10 km² and lochs with surface areas greater than 0.5 km². Future work on small water bodies in both areas is planned so that they can be protected and enhanced as part of an integrated approach.

Water plays a significant role in the landscape of Orkney and Shetland. A clean water environment is important to key industries such as wildlife and heritage tourism, beef and dairy farming, fisheries, aquaculture, and production of hill lambs. In the last 30 years, the oil industry has formed a vital part of the economies of Orkney and Shetland, and has been carefully monitored and regulated. More recently, the development of wave and tidal renewable energy has grown in significance, with test sites in several coastal water areas.
Map 1: Orkney and Shetland advisory group area (showing main catchments)
How to use the Orkney and Shetland area management plan

This plan is for the Orkney and Shetland Area Advisory Groups and:

- anyone who manages or uses the water environment;
- anyone who manages activities on land that interact 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 within the Orkney and Shetland advisory group area. To understand this national context, you may find it helpful to look at the Scotland river basin district plan. This plan, along with detailed information for individual water bodies and a web-based interactive map, is available on the SEPA website: www.sepa.org.uk/water/river_basin_planning.aspx

The plan has three key components.

1. **Area management plan summary** (this document) is an overview of the Orkney and Shetland advisory group areas including classification, objectives, key measures and an outline of the work plan for the advisory groups for the next year.

2. **Catchment summaries** provide information on classification, pressures, measures and objective for each catchment. Catchment summaries will be produced between July and September 2010, and will be updated 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/orkney_and_shetland.aspx

3. **Action plan** with information about how the advisory group will work together to deliver the district plan and a record of where new actions are being developed. These will also be kept relevant 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/orkney_and_shetland.aspx

The plan has been produced in partnership with members of the Orkney and Shetland Area Advisory Groups. These groups are responsible for sharing the information in the plan with a wider range of stakeholders, to encourage them to implement the actions in the Orkney and Shetland advisory group areas. 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.

Wider forums could also be established to allow a wider group of stakeholders to be involved in planning developments, and engage with the public. Some initial events have been held, and it could be possible to develop this in partnership with existing environmental forums in Orkney and Shetland.
Current status of Orkney and Shetland’s water environment

This section summarises the condition of the water environment in Orkney and Shetland, and the key pressures and impacts that we need to address.

In general, the classification of surface water bodies describes by how much their 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.

In 2008, 90% of water bodies in Orkney and Shetland were classified as being at good or high ecological status. This plan aims to maintain this good or high status and to secure improvements to water bodies which are at less than good ecological status.

The current condition of the water environment

The water environment includes all rivers, lochs, estuaries, coastal waters 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 55 surface water bodies and 14 groundwaters in Orkney, and 87 surface water bodies and 13 groundwater bodies in Shetland. All are shown in Map 2a below. 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 for Orkney and Shetland show that the majority of water bodies are at good or high ecological status. 86% are at good or high ecological status in Orkney, and 93% are at good or high ecological status in Shetland (see Tables 2a–2c and Maps 2a and 2b below).

In Orkney and Shetland a small number of surface water bodies (four in Orkney, one in Shetland) 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) – examples include Kirkwall Lagoon (Peerie Sea) in Orkney and the Burn of Mailand/Caldback in Shetland. The classification of heavily modified 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 for its use. All the HMWBs in Orkney and Shetland are at good ecological potential.

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 2a: Condition of surface waters and groundwater in Orkney and Shetland, 2008

<table>
<thead>
<tr>
<th>2008 condition</th>
<th>Number of water bodies</th>
<th>Surface waters</th>
<th>Groundwater¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All water bodies</td>
<td>Natural</td>
<td>Heavily modified</td>
</tr>
<tr>
<td>High/Maximum</td>
<td>41</td>
<td>41</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>111</td>
<td>79</td>
<td>5</td>
</tr>
<tr>
<td>Moderate</td>
<td>11</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Poor</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Bad</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>169</td>
<td>137</td>
<td>5</td>
</tr>
<tr>
<td>Proportion good or better (%)</td>
<td>90%</td>
<td>87.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

¹ Bodies of groundwater are classed as either of good status or poor status.
### Table 2b: Condition of surface waters and groundwater in the Orkney advisory group area in 2008

<table>
<thead>
<tr>
<th>2008 condition</th>
<th>Number of water bodies</th>
<th>All water bodies</th>
<th>Surface waters</th>
<th>Groundwater²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Natural</td>
<td>Heavily modified</td>
</tr>
<tr>
<td>High/Maximum</td>
<td>9</td>
<td>9</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>50</td>
<td>32</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Moderate</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bad</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>69</td>
<td>51</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Proportion good or better (%)</td>
<td>86%</td>
<td>80%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 2c: Condition of surface waters and groundwater in the Shetland advisory group area in 2008

<table>
<thead>
<tr>
<th>2008 condition³</th>
<th>Number of water bodies</th>
<th>All water bodies</th>
<th>Surface waters</th>
<th>Groundwater⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Natural</td>
<td>Heavily modified</td>
</tr>
<tr>
<td>High/Maximum</td>
<td>32</td>
<td>32</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>61</td>
<td>47</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>100</td>
<td>86</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Proportion good or better (%)</td>
<td>93%</td>
<td>92%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

² Bodies of groundwater are classed as either good status or poor status.
³ Note: This table differs from the classification data given in the 2009 RBMP for the Scotland river basin district. Data on coastal water bodies around Shetland was reviewed in March 2010, and this resulted in some coastal water bodies being changed from ‘good’ to ‘high’ ecological status.
⁴ Bodies of groundwater are classed as either good status or poor status.
Map 2a: Classification of surface water bodies in Orkney and Shetland, 2008

Note: This map differs from the classification map shown in the 2009 RBMP for the Scotland river basin district. Data on coastal water bodies around Shetland was reviewed in March 2010, and this resulted in some coastal water bodies being changed from ‘good’ to ‘high’ ecological status.
Map 2b: Classification of groundwater bodies in the Scotland river basin district, 2008

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:

- support economically significant shellfish;
- provide water for human consumption;
- are designated as bathing waters;
- support species or habitats identified as requiring special protection under European legislation;
- support freshwater fish;
- are sensitive to nutrient enrichment.

**Support economically important shellfish**
There are 16 Shellfish Waters in Shetland and two in Orkney, all of which meet the required mandatory standards. However, further work will be required in six of these in order to meet all guideline values under the Shellfish Waters Directive. Table 3 shows the expected timescales for improvement. Further information on shellfish waters is at: www.sepa.org.uk/water/protected_areas/shellfish_waters.aspx

**Provide water for human consumption**
There are 24 Drinking Water Protected Areas in Orkney and 30 in Shetland. All are meeting their current 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.

**Support species or habitats identified as requiring special protection under European legislation**
Orkney has six Special Areas of Conservation and 12 Special Protection Areas with water dependent features, and Shetland has nine Special Areas of Conservation and 12 Special Protection Areas with water dependent features. All of these are currently achieving the goals for which they were established. More information on specific sites is available at: www.snh.org.uk/snhi/

**Support freshwater fish**
The Loch of Stenness in Orkney, is designated as a freshwater fish area, and achieves the relevant standards.

**Protect water which is nutrient sensitive**
Loch of Harraw in Orkney, is protected under the Urban Waste Water Treatment Directive. All discharges into it are subject to the appropriate level of treatment.

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6 Shellfish Waters which did not meet all guide values on 2006–2008 combined data assessment were:

Orkney: Bay of Ireland
Shetland: Colla Firth, Mid Yell Voe, Vaila Sound, Dales Voe, Whalefirth

7 The Shellfish Waters Directive will be repealed in 2013, but at least the same protection of economically important shellfish will be achieved through river basin management planning objectives of protecting and improving the ecological quality of the water bodies concerned. More detail is available in the river basin management plan for the Scotland river basin district.

8 Figures are given for SACs and SPAs that have water dependant features and where these features are affected by Water Framework Directive-relevant pressures.
Table 3: Planned improvements to Shellfish Waters in Orkney and Shetland

<table>
<thead>
<tr>
<th>Shellfish Waters</th>
<th>Proportion of shellfish waters meeting all guideline values (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orkney (2)</td>
<td>50%</td>
</tr>
<tr>
<td>Shetland (13)*</td>
<td>61.5%</td>
</tr>
</tbody>
</table>

Notes to Table 3

All Shellfish Waters in Orkney and Shetland pass mandatory standards, but this table relates to additional, more stringent, guide values.

* Three Shellfish Waters in Shetland (Baltasound; Sandsound Voe; South Wick, Cullivoe, Yell) have not yet been assessed, as they were newly designated in 2009.

Pressures and risks

The main reasons for not achieving good ecological status across the main catchments in the area are described as pressures. The key pressures affecting Orkney and Shetland are:

**Orkney**

- Nutrient enrichment from diffuse source pollution is a pressure in the Loch of Stenness and Orkney coastal catchments, with the Burn of Hourston, Voy Burn, Loch of Harray, Burn of Boardhouse, Loch of Swannay and Bay of Ireland affected. Diffuse source pollution is also a pressure on five coastal water bodies, although these are currently at good status\(^9\).

- Alterations to beds and banks, such as straightening, channelisation and realignment for agricultural use affects six burns (Hourston, Tormiston, Voy, Netherbrough, Corrigall and Swannay) in the Loch of Stenness and Orkney coastal catchments. The beds and banks of the Suso Burn have been altered for aquaculture and commercial fishing.

- Abstraction and flow regulation for drinking water supply is a pressure on the Burn of Boardhouse, Heldale Water and Loch of Kirbister.

- Point source pollution from sewage treatment is a pressure on the Loch of Stenness catchment and coastal waters around Scapa Flow.

**Shetland**

- The Loch of Spiggie and Burn of Weisdale are affected by diffuse pollution from surrounding land-use, while Bressay Sound and Scalloway coastal waters are downgraded because of diffuse source pollution from marine transport.

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\(^9\) Burgh Head to Mull Head, Kirkwall, Start Point to Burgh Head, Noup Head to Start Point, Kirkwall Lagoon.
• Diffuse pollution related to sewage disposal and farming affects 11 Shellfish Waters\(^{10}\) around Shetland, although these areas pass all mandatory standards.

• Abstraction and flow regulation for drinking water supply has downgraded the status of the Burn of Roerwater, while it is noted as a pressure on the Burns of Mailand and Caldback (although these are at good ecological potential).

• The Burn of Laxobigging is classified as poor status because of a barrier to fish migration.

• Point source pollution from sewage disposal affects four Shellfish Waters (Mid Yell Voe, Vaila Sound, Whale Firth and Busta Voe), and coastal waters at Sullom Voe and Sumburgh (although these remain at good ecological status).

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 future\(^{11}\).

\(^{10}\) Wadbister Voe, Whale Firth, Basta Voe (Yell), Dales Voe, Mid Yell Voe, Busta Voe, Vaila Sound, Cat Firth, Colla Firth, Ronas Voe, Gruting Voe.

\(^{11}\) Further information on invasive non-native species can be found in the RBMP for the Scotland river basin district. Information on this pressure is improving, and a national implementation plan is being prepared.
Improving the water environment for the future

Objectives for improving the water environment

The water environment in Orkney and Shetland is generally of a very high quality. The task now is to build on this achievement: the overall goal of the Scotland RBMP is for 98% of water bodies to be at good or high ecological status by 2027. In both Orkney and Shetland, the aim is for 100% of water bodies to reach good or high ecological status by 2027. To achieve that, all water bodies will be protected from deterioration and action will be taken to enhance and restore those at less than good ecological status.

Restoring waters to good ecological status will take time, so improvements have been prioritised over the three river basin planning cycles until 2027. Comprehensive reviews of progress will be undertaken during each period and will be reported in updates of this plan.

Tables 4a–4c describe how improvements to the water environment will be phased in Orkney and Shetland, and these improvements are shown in Map 3. The phasing has been 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 4a: Condition of water bodies throughout the river basin planning cycles in Orkney

<table>
<thead>
<tr>
<th>(Number)</th>
<th>Proportion of water bodies in a good or better condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
</tr>
<tr>
<td>All water bodies (69)</td>
<td>(59) 86%</td>
</tr>
<tr>
<td>Rivers (18)</td>
<td>(10) 55%</td>
</tr>
<tr>
<td>Lochs (8)</td>
<td>(6) 75%</td>
</tr>
<tr>
<td>Coastal waters (29)</td>
<td>100%</td>
</tr>
<tr>
<td>Groundwater (14)</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 4b: Condition of water bodies throughout the river basin planning cycles in Shetland

<table>
<thead>
<tr>
<th>(Number)</th>
<th>Proportion of water bodies in a good or better condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
</tr>
<tr>
<td>All water bodies (100)</td>
<td>(93) 93%</td>
</tr>
<tr>
<td>Rivers (17)</td>
<td>(14) 82%</td>
</tr>
<tr>
<td>Lochs (5)</td>
<td>(4) 80%</td>
</tr>
<tr>
<td>Coastal waters (65)</td>
<td>(62) 95%</td>
</tr>
<tr>
<td>Groundwater (13)</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 4c: Condition of water bodies throughout the river basin planning cycles in Orkney and Shetland

<table>
<thead>
<tr>
<th>Proportion of water bodies in a good or better condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
</tr>
<tr>
<td>All water bodies</td>
</tr>
</tbody>
</table>
Map 3: Planned improvement for Orkney and Shetland, 2015–2027
Actions planned to achieve our objectives

Orkney and Shetland have 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 in all water bodies, and improve water bodies that are below good ecological status. The programme for Scotland includes the latest investment planning work for Scottish Water, work with landowners to reduce pollution and ways to tackle pressures from drinking water supply, hydropower generation and flood protection.

The measures in the Scotland river basin management plan automatically feed into this area management plan, and 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 Orkney and Shetland plan will deliver improvements through a combination of regulation, investment, awareness raising and guidance. Specific measures and action plans will be developed through the Orkney and Shetland advisory groups and subgroups. Further background information on measures is included in the Scotland river basin district plan.

Some key measures to achieve the priorities for the Orkney and Shetland area are described below. Further information on measures that the Orkney and Shetland advisory group will develop is included in the action plans, available on the SEPA website at: www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/orkney_and_shetland.aspx These will be kept as live documents during the planning cycle and updated as more measures are developed and implemented.

The priorities for the Orkney advisory group area are to tackle:

- diffuse pollution affecting the Loch of Stenness and Orkney coastal catchments, and various coastal waters;
- alterations to beds and banks of water bodies relating to agriculture, in the Loch of Stenness, Orkney coastal and Rousay coastal catchments;
- point source pollution from sewage treatment affecting the Loch of Stenness catchment and coastal waters around Scapa Flow;
- water abstraction and flow regulation on the Burn of Boardhouse, Heldale Water and Loch of Kirkbister.

In Shetland, the priorities for the advisory group are to tackle:

- diffuse pollution affecting Loch of Spiggie, coastal waters at Bressay Sound and Scalloway, and shellfish waters in the Yell coastal and Shetland coastal catchments;
point source pollution from sewage treatment, predominantly affecting shellfish waters in the Yell coastal and Shetland coastal catchments;

abstraction and flow regulation for drinking water supply from the Burn of Roerwater and Burn of Mailand;

a single barrier to fish passage on the Burn of Laxobigging.

Some measures to tackle these issues are described below. More detail on how the Area Advisory Groups will develop measures is given in the action plans. Further details on specific pressures, and timescales for addressing these, will be given in catchment summaries for Orkney and Shetland.

To reduce the number of water bodies affected by diffuse pollution, the following national and local actions are planned:

• national awareness raising on diffuse pollution, using voluntary, economic and regulatory measures. A Scotland-wide programme on diffuse pollution is currently underway. It is managed by a national partnership, called the Diffuse Pollution Management Advisory Group, and includes a campaign to promote the uptake of the diffuse pollution General Binding Rules. More information is available at: www.sepa.org.uk/water/riverbasinplanning/dp_priority_catchments.aspx

• action to improve the condition of shellfish waters, by joint working from a range of partners;

• action by Scottish Natural Heritage and others to maintain and improve the condition of designated nature conservation sites (such as Loch of Stenness SAC and Lochs of Spiggie and Brow SPA). This could include catchment management work;

• local authority guidance and policy on topics such as sustainable urban drainage systems, soakaways and buffer strips to reduce the impacts of nutrient enrichment on water bodies where new development takes place;

• proposed partnership work on diffuse pollution at the Loch of Spiggie catchment in Shetland, and the Loch of Stenness catchment in Orkney.

To reduce the number of water bodies affected by sewage discharges, the following national and local actions are planned:

• Scottish Water’s planned programme of investment in sewerage infrastructure has been developed in partnership with SEPA and others in order to address pressures on water bodies. In Orkney and Shetland, 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 that the impacts of future developments on the water environment are considered throughout the planning process.

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:
- SEPA’s restoration fund can contribute towards the restoration of beds and banks, and removal of fish barriers from watercourses;

- regulation can be used to ensure that future alterations and new barriers are mitigated through the use of good design;

- locally, ongoing work by angling associations, local authorities and landowners can improve bank conditions, mitigate fish barriers 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:

- Scottish Water investment will aim to minimise the amount of water required for supplying customers through efficient management of their water supply systems;

- 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.

Orkney and Shetland Area Advisory Group members have also identified a range of ongoing and future projects which can secure additional improvements in water body status. Examples include council-led work to promote restoration of more natural beds and banks for watercourses in Orkney, the delivery of a marine spatial plan for Shetland’s coastal waters and the preparation of the draft Pentland Firth and Orkney Waters Marine Spatial Plan.

**Putting the plan into action: 2010**

The Orkney and Shetland advisory groups will have several roles in developing the actions required to deliver river basin management planning objectives. The groups will help to identify actions needed at an area level and to translate nationally agreed actions into practical work. The groups will co-ordinate action, identify gaps where key pressures have been identified, but no action agreed, and consider how best to tackle these gaps.

The Orkney and Shetland advisory groups propose to use task groups to develop measures and deliver water body objectives. The advisory groups will retain an overview role and will receive updates from these task groups.

The task groups proposed to date are listed in Table 5 below with suggested lead organisations and partners. Further information is given as an action plan in Appendix 1.

**Table 5: Proposed task group working by the Orkney and Shetland Area Advisory Groups**

<table>
<thead>
<tr>
<th>Name of task group</th>
<th>Chair/lead organisation responsible for reporting back to full Area</th>
<th>Catchment (if appropriate)</th>
<th>Pressures addressed</th>
<th>Key partners</th>
</tr>
</thead>
</table>

20
<table>
<thead>
<tr>
<th>Advisory Group</th>
<th>Organization</th>
<th>Catchment</th>
<th>Issue</th>
<th>Involving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiggie Loch catchment group</td>
<td>SEPA</td>
<td>Shetland coastal</td>
<td>Diffuse pollution</td>
<td>SEPA, RSPB, SNH, Shetland Islands Council, local landowners, Scottish Water</td>
</tr>
<tr>
<td>Loch of Stenness catchment group</td>
<td>SNH(^{12})</td>
<td>Loch of Stenness</td>
<td>Diffuse pollution Point pollution Alterations to beds and banks</td>
<td>SEPA, Orkney Islands Council, local landowners, Scottish Water</td>
</tr>
<tr>
<td>Land manager liaison (Orkney)</td>
<td>SEPA to hold initial partner meetings on this topic</td>
<td>All Orkney catchments</td>
<td>Diffuse pollution Alterations to beds and banks</td>
<td>NFUS, SGRPID</td>
</tr>
<tr>
<td>Small water bodies groups</td>
<td>SEPA (Orkney)</td>
<td>All</td>
<td></td>
<td>RSPB, SNH, OFTA</td>
</tr>
<tr>
<td>Small water bodies groups</td>
<td>SEPA (Shetland)</td>
<td>All</td>
<td></td>
<td>RSPB, SNH, Shetland Anglers Association</td>
</tr>
</tbody>
</table>

The Area Advisory Groups will receive updates from the task groups, and annual data reviews, which will enable them to monitor progress and consider where new measures should be developed and new task groups formed. The Area Advisory Groups will produce a short briefing each year which will outline progress in delivering river basin planning in Orkney and Shetland, and highlight significant areas of achievement and issues of concern. Short action plans will be produced by the task groups to tackle any issues of concern.

\(^{12}\) To be agreed and developed through ongoing discussions with Area Advisory Groups.