Scottish Environment LINK
The voice of Scotland's environment movement

Scottish Environment LINK is the forum for Scotland's voluntary environment organisations representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

To: Significant Water Management Issues Team
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Significant Water Management Issues report for Scotland RBD

A response by the Freshwater Taskforce of the Scottish Environment LINK

The following organisations support this submission: RSPB Scotland, WWF Scotland, Scottish Wildlife Trust (SWT), Scottish Native Woods (SNW), National Trust for Scotland (NTS), and Buglife

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Summary

The Freshwater Taskforce of Scottish Environment LINK welcomes the opportunity to input into the consultation on the draft SWMIs reports for Scotland river basin district. The Taskforce sees this as an important opportunity to provide information that will eventually help shape the draft RBMPs. We are generally content with the progress that has been achieved with the identification of the most widespread water management issues and appreciate the efforts of the SWMI team has made in getting the document this far. However, we do have a number of comments which we hope will improve the document still further.

These relate to:

- What is 'significant' and the relationship between SWMIs and the first RBMP
- Issues relating to climate change
- Agricultural and forestry land drainage impacts on ecological status
- The effectiveness of some existing measures
- Further measures to deal with diffuse pollution from agriculture, morphological impacts and the use of new technologies
- Restoration of the water environment

Responses to SEPA questions:

1. Do you agree that these are the significant issues impacting the water bodies within Scotland river basin district?

We understand, and agree that there is a need to prioritise activities, which most commonly put Scotland at risk of failing to achieve WFD objectives. We therefore welcome prioritisation as a process, but we do not agree with the principles that have been set to identify issues as significant. We are concerned that currently, this process does not reflect the level of ecological damage, but only the scale of a contribution of a particular sector (or source) to a wider water management problem. Knowing which sector contributes to a particular problem is important, however, the assessment of significance should be made on the basis of ecological impact. This issue needs to be recognised as the criteria only identify those issues that are the most widespread, and not the most damaging. **The first river basin management plan must address all issues, regardless as to whether they have been identified as significant by the SWMI report.**

Climate change

Climate change should be identified as a significant water management issue in the final document. Climate change predictions make it clear that both water quality and quantity will change in future. Less water will become available in certain areas of Scotland, including the south and the east. Rainfall intensity and frequency is also likely to increase as a result of climate change. Flash floods, and unpredictable weather events will increase the risk of pollution and sediment loading within catchments. Agricultural, forestry and upland land use, for example the impacts of clearfelling, trampling, burning and overgrazing will be amplified by increased rainfall impact. Sea level rise will have impacts on the integrity of coastal environments, with potentially significant impacts on coastal habitats, such as saltmarsh. Increase in the intensity and severity of floods will impact on erosion rates, diffuse pollution, and

cause degradation of the coastal ecosystems. All of these impacts should be taken into consideration, and measures should aim to provide flexible means of managing any potential future problems. Adapting to these changes through making land use management practices (principally agriculture and forestry) more sustainable should be an important part of SWMIs and RBMPs.

2. Are there other significant issues at the river basin level that have not been addressed?

Yes, the table below (Table 1) suggests some changes to SEPA's conclusions, and reflects what members of LINK's Freshwater Taskforce consider to be significant sectoral contributors to a particular water quality problem. Climate change is caused by all human activities, including agriculture, forestry, industry, the domestic sector, development, transport etc. We would suggest that there are a number of key sectors missing from the table. These include the domestic sector for diffuse pollution, marine and freshwater aquaculture and issues relating to the drainage of land caused by agricultural and forestry activities.

Table 1

Pressure type	**Key sector**
Climate change	**All**
Diffuse source pollution	Agriculture, forestry, urban development (this should include development in a broader sense), sea and coastal water transport, **domestic sector, transport infrastructure**
Point source pollution	Sewage treatment and collection, aquaculture (both **freshwater and marine)**, manufacturing, refuse disposal, mining and quarrying
Abstraction and flow regulation	Electricity generation, public water supplies, agriculture
Changes to morphology	Historical engineering, **drainage from agriculture and forestry activities (including upland estate activities)**, electricity generation, urban development, land claim
Invasive non-native species	All sectors, but **recreational and commercial fisheries and sea / coastal transport are** perhaps the most significant

3. Have we identified all the important existing measures that are being used to address these issues?

Gathering information on existing measures and identifying gaps is an essential part of the RBMP process, and we therefore welcome this part of the consultation and efforts by SEPA to gather information on existing measures. We believe this should

be the beginning of an ongoing partnership between SEPA and key stakeholders and LINK hopes to work closely with SEPA on information and gaps issues on an ongoing basis. Whilst some measures may already exist, it does not necessarily mean that they will be adequate to meet WFD objectives. We therefore strongly recommend that SEPA also looks at the effectiveness of these measures in delivering WFD objectives, and where necessary recommends revisions of measures to make them more effective.

4. Please identify any existing measures that have been missed.

We have identified the following strategies, programmes and other 'measures' that we believe should be included:

- Scottish Soils Strategy
- Scottish Biodiversity Strategy and Biodiversity Action Plans
- Scottish Climate Change programme and adaptation strategy
- Ensuring compliance with existing legislation

5. Are there additional new measures that you thing could make an important contribution to addressing a significant issue?

Yes, these include:

- The use of new technologies (e.g. SUDS)
- Diffuse pollution strategy and DP implementation group
- Sustainable catchment solutions to deal with drinking water quality problems
- Restoration to become key part of RBMPs
- Further development to strengthen the UK Forestry Standard and associated Forest and Water Guidelines to ensure they are fit for purpose as climate change begins to take effect (LINK strongly supports the proposal on page 31 that the UKFS becomes a cross-compliance requirement under Rural Development Contracts).
- Better targeting of Rural Development Programme support towards measures which enhance riparian zones
- Reviewing existing measures and codes of practice
- Measures to address gaps in the regulation of activities in coastal and marine areas
- Reducing the impacts of hydro-electric production

Some of these sugegstions are discussed further in the text below.

The use of new technologies and innovative measures

A predicted consequence of climate change is likely to be more frequent sudden heavy rainfall events. The impact of this in urban areas on water quality and flow can be ameliorated by SUDS measures and integrated surface water management plans which the consultation document rightly identifies this on pages 32 and 33. However, we believe there should be specific reference to a range of 'greening' measures that could help regulate water flow in urban environments where much of the land surface is currently impermeable. The most important amongst these are:

- the development of strategic green networks – particularly along watercourses;

- protection of areas of semi-natural vegetation and other biodiversity hotspots;
- the restoration of the natural pathways of urban watercourses
- living/green roofs
- street trees;
- urban woodlands;

Despite legislative requirements relating to SUDS, green roofs in particular are massively under used in Scotland in comparison to many other European countries where they are incorporated as standard into new developments.

Diffuse pollution from agriculture – proposals for further measures

There are a number of measures already in place to deal with diffuse pollution from agriculture. However well designed these measures are, they often prove to be ineffective as they largely rely on voluntary uptake by farmers and/or are poorly enforced. It is therefore unlikely that existing regulations, codes of practice and the new general binding rules (GBRs) will, in themselves, achieve good water status across Scotland. This has now been widely recognised and whist the introduction of GBRs will set a statutory code of best practice, further measures will be needed to deal with this complex problem. Addressing diffuse water pollution needs a new and a more proactive approach consisting of a combination of measures aiming to bring about *behavioural change*. These measures include effective regulation, education and awareness raising, the use of Catchment Officers to provide free advice, and financial incentives for pollution sensitive farming in high risk areas. We therefore welcome the recent initiative to establish a Diffuse Pollution Implementation Group, which must be clearly linked with the activities of the National Advisory Group and seek to actively engage in advising the government on further measures that may be needed, including additional funding.

Sustainable catchment solution to deal drinking water problems

Scottish Water faces many issues in securing reliable, uncontaminated water supplies, including the cleaning up of pollution caused by other sectors, such as agriculture. The most important pollutants affecting water supply are microbiological contamination from animal waste, nitrate contamination of groundwater supplies, and the run-off of nutrients and pesticides that contaminate surface waters. Erosion of peat rich habitats and soils also leads to discolouration of raw water, which is more of an aesthetic than human health issue. However, all this means that Scottish Water is faced with water quality problems out with its own control. As a result, SW is required to install progressively more sophisticated and expensive water treatment facilities in order to protect its customers. Addressing water quality at the 'end of pipe' is proving increasingly costly and is not a sustainable option in the long-term. Climate change will put further stress on our water and sewerage infrastructure. LINK's Freshwater Taskforce believes we need to develop catchment scale solutions that will reduce the input of pollutants in the first place, improve raw water quality and reduce the need for expensive end of pipe treatment. The need for this shift to a more system based, sustainable model of water resources should be stressed in the document.

Restoration of morphological impacts

Drainage of land for food and timber production has resulted in a severe change in the functioning of natural rivers. Flood defence and the drainage of farmlands have been actively encouraged by the EU Common Agricultural Policy (CAP) since the

late 1940s, with the aim of increasing and securing food production. Applications for major drainage schemes can still be made today under the Land Drainage Act (Scotland) 1958 and 1930. This practice has resulted in the widespread loss or degradation of riparian vegetation, floodplains, wetlands and riparian woodlands. These are vital functional parts of a healthy river catchment, and their damage also has a direct impact on the ecological status of a water body. Restoration of floodplains and coastal marshes should be a key element of river Basin Management Plans.

Reviewing existing measures

Some existing measures to address water management problems may be out of date, or may need revising in order to meet WFD requirements.

We have identified the following key areas where this is the case:

- Forest and Water guidelines and other existing measures to bring in line with WFD requirements for both diffuse pollution and morphology;
- Review the land drainage regulation to bring in line with WFD;
- Review code of practice for marine fish farms;
- Review the effectiveness of cross-compliance and GAEC.

Measures to address gaps in the regulation of activities in coastal and marine areas

The WEWS Act requires that all activities that could pose a risk to water environment are controlled. The Act extends its requirements out to 3 nautical miles. These activities include land claim, dredging, mineral extraction, oil and gas exploration and extraction, coastal flood defence, and fisheries impacts on the seabed. These activities require further consideration in order to comply with WFD requirements. Existing controls do not cover damage to seabed from dredging/trawling activities, and are therefore further measures are needed to resolve this issue.

Hydropower generation

Hydro schemes can have significant and lasting impacts on wildlife due to disturbance during construction, direct loss of habitat and dramatic changes in physical and hydrological conditions. Often, hydropower developments result in a permanent loss of freshwater and terrestrial habitats, drainage of wetlands and bogs, and subsequent loss of habitat and species diversity. Measures to address impacts of hydro schemes should include all options, including increasing compensation flows through a reduction in energy generation. The decision about the most suitable measure, or a combination of measures should be made on the basis of cost-effectiveness with any additional benefits/costs of options taken into consideration e.g. benefit of re-connecting fish spawning runs, improved amenity etc**.** In some cases, modification of the infrastructure or activities will be required in order to restore ecological function. WFD recognises that some sustainable uses of water cannot be achieved without physical modification of water bodies. Where this is the case, WFD allows for a derogation of its main objective, and aims to achieve good ecological potential.

We hope that you find these comments useful. Should you require further information, please do not hesitate to contact the Freshwater Taskforce Convenor.

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