Scottish Government consultation:

'Scotland The Hydro Nation: Prospectus and Proposals for Legislation'

Response from the Scottish Environment LINK Freshwater Taskforce

March 2012

Scottish Environment LINK is the forum for Scotland's voluntary environment organisations, with over 30 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

Summary
We welcome the opportunity to respond to this consultation on the Hydro Nation vision and proposals for the Water Resources Bill. Scottish Environment LINK's vision for a 'Hydro Nation' is one where pollution and overabstraction of water is minimised; less water is wasted in industry and in households; water industry leakage targets have incorporated environmental costs and benefits, and wasteful leakage in the water infrastructure is eliminated. We wish to see Scottish Water leading the way in managing its own estate for biodiversity and outdoor recreation and facilitating catchment management to deliver multiple benefits such as improved water quality, wildlife habitat, flood risk management and carbon storage, and reducing its greenhouse gas emissions in the most sustainable way and using energy from appropriately-sited renewables to power water industry operations.

Scottish Environment LINK wishes the Hydro Nation agenda and forthcoming legislation to realise:

- A strong commitment to environmental protection and sustainability in all of water industry's functions
- Water industry playing a strong role in sustainable catchment management that delivers multiple benefits for Scotland
- A Scottish Government statement setting out the aspirations for a Hydro Nation - a vision that has sustainability at its heart.
- A strategy for water industry's proposed renewables development

We set out our detailed comments below. We have arranged our views and comments on the first section of the consultation document into the following categories: 'sustainability and environmental protection', 'low carbon and water efficiency' and 'sharing expertise'.

Section 1 - Prospectus for a Hydro Nation

Sustainability and environmental protection

- The vision is lacking in a clear reference to sustainability. A Hydro Nation must protect and enhance its water environment and use this natural resource sustainably. Any vision or objective for a Hydro Nation must reinforce Scottish Water's existing statutory duties in relation to sustainable development[1], furthering the conservation of biodiversity[2], reducing greenhouse gas emissions and contributing to climate change adaptation in the most sustainable way[3], furthering the conservation and enhancement of natural beauty, conservation of flora and fauna and geological or physiographical features of special interest[4]. It must also be remembered that these statutory duties apply to Scottish Water's subsidiaries including Business Stream and Horizons.

- We believe that a Hydro Nation is one where catchments are managed in an integrated and sustainable way, delivering a range of environmental, social and economic benefits for Scotland such as improved raw water quality, biodiversity, amenity and outdoor recreation, flood risk management, carbon storage, climate change adaptation etc. Indeed, the Land Use Strategy[5] highlights the need for a 'shift in approach' towards the delivery of multiple benefits. Water industry clearly has a role in helping to achieve this and must be directed to do so.

- Page 6 states that one of the aims of a Hydro Nation is to 'Deliver Economic Gain to Scotland' by "*Utilising Scottish expertise to maximise the economic benefit of our abundant water resources within a sound ecological context*". We are concerned that an intention to maximise economic gain from water resources could lead to environmentally damaging activities. It is not clear to us what a "sound ecological context" is and this would require a robust definition.

- Page 8 highlights the value of bottled water export from Scotland. We would remind Scottish Government that the process of abstraction, treatment, bottling and transportation of bottled water is extremely energy intensive, and abstracting water for export could place unnecessary pressure on water resources. Bottled water enterprises must only be developed if they are truly sustainable.

- LINK is keen to see Scottish Water and others take a stronger role in maximising habitat for biodiversity when designing Sustainable Urban

[1] Water Industry (Scotland) Act 2002; Water Environment and Water Services (Scotland) Act 2003
[2] Nature Conservation (Scotland) Act 2004
[3] Climate Change (Scotland) Act 2009
[4] Water Industry (Scotland) Act 2002
[5] http://www.scotland.gov.uk/Resource/Doc/345946/0115155.pdf

Drainage Systems (SUDS). We believe that many SUDS could be greatly improved to provide habitat for wildlife and we consider that this is something that Scottish Water should be seeking to do in line with their statutory duty under the Nature Conservation Act (Scotland) 2004. LINK is keen to work with Scottish Government in any future development of advice or guidance e.g. Planning Advice Notes which could help address this issue.

Low carbon and water efficiency

- We recognise the importance of renewable energy and its contribution towards mitigating climate change and meeting Scotland's ambitious carbon emission reduction targets. Renewables developments must be appropriately sited and conform to legislative requirements including the Birds and Habitats Directives and Water Framework Directive, and should seek to minimise any negative impacts on landscape and important wildlife sites that fall outside the protected areas network. In addition, Scottish Water should take a proactive approach to development proposals within catchments to prevent situations where, for example, the construction of wind turbines leads to soil erosion and contamination of water sources. LINK believes the water industry should be under obligation to produce a strategy, which will be subject to a Strategic Environmental Assessment, setting out its proposals for renewables development. Taking an open and transparent approach, and engaging stakeholders at an early stage, will help to maximise capacity to generate energy from renewables while identifying and avoiding potential negative impacts.

- LINK is supportive of the proposal to "*Create a forward vision of what a low carbon water industry would look like in 10 and 20 years time and develop a strategic plan to reach that point*". LINK would welcome the opportunity to input and assist in development of this plan at an early stage. We look forward to a strategy which seeks truly sustainable solutions for water and wastewater capital projects and dismisses potentially lower cost but energy-intensive treatment options.

- We are concerned by the frequent references to Scotland's abundant water resources. Such statements overlook the fact that many parts of Scotland have a water deficit at certain times of the year. Many rivers in the east of the country are under stress, particularly where water is abstracted for drinking water supply. Indeed, Scotland's River Basin Management Plans recognise abstraction for drinking water as a significant pressure on our water environment[6] and it is predicted that climate change will bring additional stress on freshwater systems in drier parts of Scotland. The sustainable use of water and adaptation to climate change must be fully

[6] Scotland and Solway-Tweed River Basin Management Plan 2009-2015
http://www.sepa.org.uk/water/river_basin_planning.aspx

incorporated into any Hydro Nation vision. LINK has set out five principles for climate change adaptation which Government should adopt[7].

- The future possibility of 'bulk export of water' from Scotland is mentioned (page 10). We could not support such a practice as it is not sustainable.

- One aspect of the vision (page 4) states "*The value of our water resource to the economy will be increasingly realised through the development and marketing of technologies and services and the attraction of water intensive activities from areas of water stress*". We would be extremely concerned if Scotland were to undertake unsustainable water-intensive activities for economic gain.

- LINK is keen to see environmental and social costs incorporated into the Economic Level of Leakage (ELL). Despite the progress that Scottish Water has made in reducing leakage in recent years, we believe that leakage remains unacceptably high. During 2009-10, 704 million litres of water were lost each day in Scotland through leakage[8]. Moreover, we think that the target leakage rate of 612 million litres per day[9], as determined by the ELL, is unambitious. This high level of leakage causes more water to be abstracted than is actually needed thus putting pressure on our aquatic environment and unnecessarily emitting greenhouse gases. We think that if social and environmental costs and benefits were adequately valued and integrated into the ELL model, leakage targets would be driven down.

- Much greater scope exists to improve how efficiently we use our water resources, not only through cutting down on leakage but also supporting more efficient appliances and encouraging innovation in businesses to develop more water efficient processes. Particular opportunities exist through, for example, strengthening of water efficiency standards in the forthcoming 2013 building regulations and the opportunity to integrate water efficiency advice and improvement into energy efficiency retrofit programmes including the forthcoming 'Green Deal'. Furthermore, in its 2010-2015 Final Determination, WICS stated "*it may be possible to design household meter tariffs that create a financial incentive to save water and still protect vulnerable households*". We understand that household metering trials are underway and we look forward to hearing how any outcomes of these trials might be adopted by a 'Hydro Nation'.

- Much greater emphasis must be placed on Scotland's actual use of water resources in the form of our 'water footprint'. While average household

[7] http://www.scotlink.org/files/policy/PositionPapers/LINK5_ClimateAdaptPrinciples.pdf

[8] http://www.scottish.parliament.uk/business/pqa/wa-10/wa0806.htm

[9] *Scottish Water Carbon Plan 2010*
http://www.scottishwater.co.uk/portal/page/portal/SWE_PGP_NEWS/SWE_PGE_NEWS/INFO_CLIM_CHANGE/Scottish_Water_Carbon_Plan_2010.pdf

water use in Scotland is around 150 litres per person per day, our consumption of produce from other countries means that each of us effectively uses 4,645 litres of water per day[10]. Most of this is in the form of 'virtual water', i.e. water that has been used to grow the crops that make the food we eat, the beverages we drink and the clothes we wear. The bulk of this water comes from outwith the UK and is therefore linked to the security and good management of water resources in other parts of the world. Alongside managing our own water resources more sustainability we therefore have a responsibility to understand our total water footprint and identify where it has the most harmful impact and take steps to reduce this. The Scottish Government needs to take a proactive role in ensuring Scotland understands our water footprint and takes steps to reduce this, encourage businesses to reduce their water footprint and helps support the development of innovative manufacturing and production processes which reduce water use.

Sharing expertise

- We are supportive of the proposed role in international water management. Such an approach has potential not only to aid communities around the world but also to help alleviate pressures on the water environment and water-dependent priority species and habitats, at a global scale. Of course, we must be mindful that technology that might work in Scotland may not readily transfer to developing countries where water and other resources may be in short supply. For example, flushing toilets are not an appropriate solution in a country with insufficient drinking water. Any international work must concentrate on enabling local people to develop sustainable solutions appropriate to their area and situation.

- We are concerned that the proposed international work is set within a context of Scotland having some of the best water quality in the world. We remind Government that there remains a huge challenge to meet WFD requirements and to improve the quality of Scotland's water bodies and prevent their deterioration. We feel that the rhetoric used in this document could detract from this challenge and cultivate a feeling of complacency. The ambition for Scotland to play a role in world water management is laudable but, in doing so, we must ensure that our 'own house is in order' first of all.

- The consultation highlights the work of the Centre of Expertise on Water (CREW). We are supportive of the research undertaken by CREW, for example its work to inform how to get effective natural flood management measures implemented 'on the ground' in catchments. Funding and resources for water management research must be targeted to ensure that this is aligned with policy needs and that it facilitates implementation of sustainable land and water management for the benefit of biodiversity, water quality, carbon storage, flood risk management and so on.

[10] http://wwf.panda.org/what_we_do/footprint/water/

Section 2 - Water Resources Bill

1. Hydro Nation Duty

We set out our comments to the draft legislative provisions below:

Section 1(1) - insert *sustainable* before development

Section 1(3) – 'other benefit' should be defined to make clear that it includes environmental and social benefit.

Section 1(4) - we believe that peatlands must be explicitly listed here. Peatlands are dependent on groundwater and, therefore, are technically covered by the WEWS Act definition. However, there is considerable ambiguity surrounding WEWS and peatlands, for example see point 1.1[11]. As peatlands constitute a significant proportion of drinking water catchments and directly affect water quality (e.g. peatland erosion increases water discolouration), it is critical that they are covered by this Water Resources Bill.

Section 3(1) – LINK proposes that WICS and DWQR should be included here. While we understand the issue of maintaining the independence of these bodies as regulators, it would be useful if Scottish Ministers could direct them to co-operate in certain elements of a Hydro Nation duty, for example, protecting drinking water sources in catchments. Similarly, we believe that SEPA should be a designated body but should retain its independence when regulating Scottish Water on aspects related to environmental protection.

Section 4(1) – We believe that this must also include Section 1(2) so that it is clear that Scottish Ministers must also report as to how they have fulfilled the section 1(1) duty in a manner that is consistent with existing functions and duties and in the way best calculated to contribute to achievement of sustainable development.

2. Scottish Water

2.1 Principles to guide Scottish Water's development

We believe that the principles proposed to guide Scottish Water's forward development require clear reference to sustainable development to ensure that Scottish Water meets its existing statutory duties regarding sustainability. Furthermore, the need for environmental regulation must not be overlooked and should be explicitly stated in the overarching principle. We suggest the following changes (underlined):

Overarching principle

[11] http://www.sepa.org.uk/planning/idoc.ashx?docid=03ea5dce-3e8b-4aad-9ea9-bbd09f827427&version=-1

The essential services provided by Scottish Water in the delivery of clean fresh drinking water and the collection and treatment of sewage must not be compromised. Scottish Ministers will expect Scottish Water to deliver its core functions sustainably with increasing efficiency and at a standard comparable to the best providers elsewhere. Independent quality, environmental and economic regulation will continue to be essential to achieving this.

Principle One
Scottish Water's commercial activities should support the Scottish Government's overall purpose to increase sustainable economic growth and in particular support the strategic objectives to make Scotland Greener and Wealthier and Fairer.

We believe that reference should be made to sustainable development **not** sustainable economic growth. Any reference to sustainable economic growth must be accompanied by the full definition to emphasise that such growth should not happen at the expense of the environment i.e. *Sustainable economic growth means building a dynamic and growing economy that will provide prosperity and opportunities for all, while respecting the limits of our environment in order to ensure that future generations can enjoy a better quality of life too*[12].

Principle Two
Scottish Water should, sustainably develop new activities and take on new functions where these are aligned to its existing activities or where Scottish Water demonstrably has the expertise and resources to do so.

Principle Three
Scottish Water should seek to utilise its assets and expertise to sustainably develop Scotland's water resources as fully as possible. Scottish Water should sustainably develop new activities and take on new functions where there is a robust business case that they will deliver strong commercial returns or other social or environmental benefits. Scottish Water should avoid business and technical risks that are inappropriate for an essential infrastructure provider.

2.2 New duties

It is proposed that the Bill will contain provisions to give Scottish Water new functions e.g. development of renewable energy. It is stated that the Bill will be used to make a clear distinction between new and existing functions to ensure that delivery of Scottish Water's core functions (water and sewerage services) is not compromised.

We urge that any Bill provisions should explicitly state that new functions are to be carried out sustainably. As highlighted elsewhere, renewable energy developments must be sited appropriately, conform to Birds and Habitats Directives and other relevant legislation and minimise any adverse environmental impacts.

[12] http://www.scotland.gov.uk/Publications/2010/02/03132605/7

2.3 Clarifying commercial powers

As it stands, we do not think that that the proposed amendment will sufficiently safeguard Scotland's environment. We think that 'sustainable' must be inserted before development i.e. *"(1A) The power in subsection (1) includes, in particular, power to do anything that Scottish Water considers will assist in the sustainable development of Scotland's water resources or any of Scottish Water's assets."*

2.4 Powers for Scottish Ministers to lend to subsidiaries

Currently, Scottish Ministers can lend to Scottish Water and Business Stream but there are no provisions for them to lend to other SW subsidiaries such as Horizons to support waste recycling, renewables etc. We do not have any specific comments on this proposal except to highlight that all public body duties, including those relating to sustainability and conservation of biodiversity, extend to all Scottish Water subsidiaries. LINK would like to see a public statement that reinforces that such duties exist for subsidiary companies.

3. Modernising the legislative framework

3.1 Managing Temporary Water Shortages in the Public Supply
This relates to updating existing legislation to ensure that arrangements are in place to manage abstractions and treatment of public supply and to respond to any shortages that occur e.g. during periods of low rainfall. LINK is supportive of these proposals. However, we reiterate the need for households and businesses to improve efficiency and reduce water consumption at all times, not just during periods of low rainfall. We refer to our comments elsewhere in this response regarding increasing water efficiency.

To help prevent and manage water shortages, it is crucial that abstraction pressure on the water environment is addressed. SEPA is responsible for reviewing the conditions of abstraction licenses issued under the Controlled Activities Regulations. These reviews are essential for ensuring that license conditions are sustainable but there is little public information about SEPA's progress on this issue. We believe that SEPA should be under obligation to make the review process transparent and to show how they are taking account of their biodiversity duty in the review of licenses.

3.2 Protecting Drinking Water Sources in the Catchment
This section recognises that catchment management, in combination with treatment, could help achieve the required drinking water standards. Sustainable catchment management can not only enhance water quality but can be positive in terms of reducing carbon emissions, enhancing carbon storage (e.g. through peatland restoration), improving wildlife habitat, landscape and amenity value. Such approaches are increasingly being adopted by water companies across the UK,

for example the Sustainable Catchment Management Programme (SCaMP)[13] which is successfully underway in the north of England.

LINK welcomed the announcement in the Final Determination 2010-2015 that Scottish Water would be financed to deliver sustainable land management in Scottish catchments. We believe that this funding must be used to set up pilot catchments that clearly demonstrate how such an approach can deliver multiple benefits.

We believe that strong duties must be placed on Scottish Water and others to ensure that a sustainable catchment management approach is pursued effectively. LINK would like to see:

- A duty placed on Scottish Water to deliver and facilitate sustainable catchment management.
- An appropriate body(ies) assigned the responsibility of overseeing Scottish Water's delivery of this. This might involve roles for WICS and SEPA on aspects of economic benefits and compliance with WFD and other environmental benefits, respectively.
- We recognise that Scottish Water cannot deliver a sustainable catchment management approach on its own. For example, SEPA and SGRPID have existing responsibilities in enforcing regulations (e.g. CAR, cross compliance) that aim to protect water quality. Therefore, this duty should extend to all relevant bodies and agencies who can contribute to a catchment management approach, for example, Scottish Ministers, SNH, FCS, National Parks.

We support the proposal to give powers for Scottish Water to access land to take water samples for the purposes of identifying the source of the problem.

3.3 Prescribed Substances

We are supportive of the proposals to give Scottish Water greater powers to undertake work in drainage catchments and to identify pollution sources. Page 27 states that such an approach will only be taken where it is shown to be 1) cost effective, 2) in the interests of customers and 3) providing an environmental benefit. It is important that the test for 'cost-effectiveness' adequately assesses the environmental costs and benefits when taking decisions as to whether or not to undertake the work.

3.4 Septic tanks

We recognise that, despite being regulated under the Controlled Activities Regulations, pollution from septic tanks remains a pressure on the water environment and research indicates that phosphorus loading from septic tanks is probably underestimated[14]. We welcome the proposals that Government, SEPA and

[13] http://www.rspb.org.uk/ourwork/projects/details/218780-scamp-sustainable-catchment-management-programme

[14] http://nora.nerc.ac.uk/2531/2/DudleySepticTanksRep.pdf

Scottish Water will work to increase public awareness on septic tank maintenance and registration. However, it remains crucial that SEPA uses its enforcement powers to bring remediation when a septic tank is identified as causing a pollution problem. There is a role for Scottish Water and SEPA to work closely with local authorities in relation to policies and planning for new developments which cannot be connected to mains drainage. We propose that a requirement to notify SEPA of the installation of new septic tanks should be made a condition of planning consent. We support the proposal that this Bill will bring a legal mechanism to encourage maintenance of communal septic tanks.

This response was compiled on behalf of the Freshwater Taskforce and is supported by:

- RSPB Scotland
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