

Scoping a strategic vision for the uplands – Key questions for discussion

Overview

General Comments

Thank you for the opportunity to consider this consultation. Appropriate management of uplands as part of wider catchment management is important in sustaining the quality of water resources, and we are interested to understand the long term vision for its maintenance.

Whilst the focus is on land management, given our water focus our response will largely centre on the role of upland management in terms of water catchment management.

1	<p>Where are the uplands? What broad characteristics should we use to define the uplands? Some possible approaches are summarised in the annex to this note.</p>
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Scottish Water considers the most appropriate approach would be to characterise uplands by habitat, including bog, moorland and rough grazing. This would encompass both “altitude” and beyond the “limits of enclosed farmland” criteria, as set out in the Annex of the discussion document.

2	<p>What benefits do the uplands provide to Scotland? What are the key social, economic and environmental benefits that the uplands provide for Scotland?</p>
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We believe that the value of public water supply catchments should be recognised and awareness increased of “primary use” as set out in Principle C of the Land Use Strategy.

Uplands provide benefits that are social, economic and environmental for Scotland.

Social

Scottish Water’s activities are the collection, treatment and distribution of drinking water and the collection, treatment and safe return to the environment of waste water. These functions are of huge benefit to the well-being and health of Scotland, in terms of public health, sustainable use of resources and environmental protection.

Many other sectoral activities take place in or near drinking water sources including: forest management and felling; wind farms; hydro schemes and aerial spraying of pesticides. If risks are not properly assessed, the quality of the source water can be impacted which in turn increases the energy and chemical use required for water treatment. Water quantity can also be impacted by changes in

land use, for example it is recognised that conifer planting can have the potential to reduce water availability in drinking water sources.

Economic:

In Scotland, many of our drinking water catchments contain both deep and shallow peat soils. Blanket bog is a source of water for public drinking supplies and many of our source water catchments are within upland areas that contain moorland and rough grazing. When large areas of these soils are present it can result in high colour and organic carbon levels in the water supplying our water treatment works. This can affect the water treatment process, making it more costly and energy intensive.

By maintaining or improving the quality of blanket bog, moorland & rough grazing, source water quality can be increased and therefore reduce the treatment costs. Through our routine monitoring data we have identified a number of sites where the level of organic carbon in the source water is increasing. We would like to work with land managers to restore organic soils to their natural condition if and where land management activities are having an impact.

Well managed blanket bog and moorland contribute to storage capacity of water in the uplands and contribute to reducing peak flow rates and flood management further downstream. By improving or maintaining blanket bog and moorland condition, flooding can be better controlled, reducing the potential need to use arable farm land as flood storage and providing protection against damage to rural and urban property.

Environmental:

Scottish Waters activities are reliant on provisioning and regulation ecosystem services provided by the natural environment. We are a highly regulated sector and work with our financial, water and environmental regulators and advisory bodies to determine the best outcomes for Scotland's environment and societal needs of the people of Scotland.

3	What benefits do the uplands provide to Scotland? How can upland land use help to prevent or reduce the impacts of climate change?
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Increasingly we need to recognise the multiple benefits provided by appropriate management of catchments.

Flood management.

Wet weather and flood episodes have increased in frequency. Well managed blanket bog and moorland contribute to storage capacity in the uplands and contribute to reducing peak flow rates and flood management further downstream. By improving or maintaining blanket bog and moorland condition, flooding can be better controlled, reducing the potential need to use arable farm land as flood storage and providing protection against damage to rural and urban property.

Changes in the urban environment can impact the surrounding land and watercourses, causing flooding issues and also impact on water quality. Scottish Water may have abstractions points for drinking water downstream of urban environments; we are interested in how the Vision would be applied within an urban environment.

Changes to water flow caused by hydro schemes, are identified as a risk to habitats and species. We wish to highlight that hydro schemes proposed on watercourses which feed Scottish Water drinking water abstractions can also have the potential to affect drinking water quantity.

Carbon sequestration.

Maintaining or improving blanket bog to increase source water quality and quantity contributes to carbon sequestrated.

We firmly support growth in sustainable forestry and local tree planting, where appropriate steps have been taken to consider the location and full life, management and harvesting of the plantations so that water quality and quantity is protected from potential negative impacts of inappropriately located forestry.

Conifer plantation has the potential to reduce the water yield of drinking water catchments.

4	<p>What should an upland vision include? A strategic vision could inform decisions about the balance between different land uses in different parts of the uplands. What are the key choices that an upland vision should address, and why?</p>
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We consider that the benefits of services such as provisioning of high quality drinking water sources and regulating of nutrients to enable the safe return to the environment of our Waste water Treatment Work discharges are key issues to informing the vision.

It must be accepted that a particular type of land use can have either a positive or negative effect on another aspect of land use within the uplands. While there are many compatible land use activities and practices, there are some that are incompatible and may require being attributed “primary use” status as set out in Principle C of the Land Use Strategy. Other sectoral activities may require management of a temporal or spatial nature e.g. there may be times of the years where opportunities for compatibility do exist.

We would also recommend raising awareness by highlighting and promoting the value of Scotland’s uplands to all the people and economy of Scotland.

5	<p>What should an upland vision include? Are there any other topics or issues that should be included in an upland vision, and if so why?</p>
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There should be an explicit reference to Drinking Water Protected Areas (DWPA) in any future documents, acknowledging the need for waters used for the abstraction of drinking water, designated as DWPA under Article 7 of the Water Framework Directive (WFD), to be protected from deterioration in their quality as a result of any activity taking place in the catchment.

Additionally, reference should be made to Scotland’s new Circular Economy strategy in the Land Use Strategy to recognise the links between land and maximising the

value of biological resources, such as use of treated Sewage Sludge in Agriculture and land reclamation.

Focus attention and offer direction for land use and peatland restoration best practise.

All of this must be considered in the context of full benefits and impacts at a catchment scale. In doing this we might consider mapping the flow of natural capital – benefits and costs from source to sea.

6	<p>What should an upland vision include? Are there any topics or issues that should be excluded from an upland vision, and if so why?</p>
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We have no comment

7	<p>How should the vision be developed? Which stakeholders do you think it would be particularly important to involve, and how? Would particular approaches be needed, for example, to reach particular groups?</p>
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Scottish Water would wish to be part of this process. We believe the full range of upland stakeholders, including owners, occupiers, sectors such as regulators, advisory bodies, agricultural, economic, sporting, environmental, social and tourist should be appropriately represented.

8	<p>How should the vision be developed? What are your views on the process that might be needed to bring together the key interests and develop a shared vision?</p>
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We have no comment at this time.

9	<p>How should the vision be developed? Who would be best placed to lead this process?</p>
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Whilst a lead body will need to be allocated, it is clear that activities will be across multiple agencies and operators. To that end we would suggest an appropriate lead within Scottish Government is identified.

10	<p>How should the vision be developed? What form should a vision for the uplands take (visual or descriptive, maps, diagrams or text)?</p>
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Models and GIS provide simple or complex visual representation of information for an area, with the ability to alter and switch particular data sets on and off for

comparison purposes.

It can allow the assessment of multiple activities thus providing a more holistic view and allow for planning and assessment across multiple ecosystem services.

It would be beneficial for the data to be open source and accessible by all stakeholders with an indication of source, age, seasonal etc.

It is important we think about management scale boundaries. Whilst recognising that we have a particular interest, we would suggest that in terms of setting a vision and identifying means to implement the actions, water catchments tend to form natural management structures for delivery. This would also align with other national approaches such as River Basin Planning.

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How should the vision be developed?

Do you have any other comments or suggestions?

We would suggest an initial stakeholder mapping exercise is undertaken to support a potential workshop to identify all of the interactions / inputs / outputs and flows of natural capital benefits and costs would be a good place to start.

Thereafter it could focus on specific elements such as working directly with relevant parties around e.g. peatland restoration. We would also welcome the opportunity to work with land managers around activities such as land drainage which may affect water quantity or quality.

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