



**Scottish
Water**
Trusted to serve Scotland

17 November 2023

Edward Mountain MSP
Convener
Net Zero, Energy and Transport Committee
The Scottish Parliament
EDINBURGH
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Dear Convener,

Thank you for inviting Scottish Water to give evidence to the Committee recently. We welcome the opportunity to engage with the committee about Scottish Water and I am writing to follow up on some questions raised by the Committee that we were not able to answer during the session itself.

I would also like to make the Committee aware that we have contacted Jim Fairlie MSP's office to offer a meeting at his convenience to discuss our capital investment project at Glenfarg.

Peatland Restoration

In relation to Jim Fairlie MSP's question about the peatland restoration projects for 2022/23, I said at the session that I did not have the detail to hand about the position regarding landowners and tenant farmers, but would write to explain the position.

The first stage in peatland restoration on either Scottish Water-owned land or third party-owned land is to carry out a survey of the condition of the peat. This survey is carried out with agreement of the tenant or landowner as they need to grant permission for us to enter the land to carry out the survey. Where peat is identified as needing restoration, we will then engage the tenant or third party to discuss how the restoration will be delivered.

In 2022/23, we were considering the restoration of peatland at two locations, one being on Scottish Water-tenanted land and the other third-party land. We reached agreement with the third-party landowner and this work has progressed, with further restoration planned for delivery in 2023/24. For the Scottish Water land, we did not reach agreement with the tenant for land entry and, under the agricultural tenancy, tenant farmers must agree to Scottish Water carrying out work on the tenanted land. We do not have statutory powers that allow us to enter land without permission of the tenant farmer.

In developing the 2023/24 peatland restoration programme, we started our engagement work earlier and this has proven successful, with work planned to progress in a number of locations with tenant farmers and third-party landowners.

Circular Economy

How could the adoption of circular economy principles in the Scottish economy help to improve the resilience and adaptation of the water industry to a changing climate?

We see a circular economy as a key enabler to deliver sustainable services for our customers, now and in the future and are fully supportive of the move to a circular economy in Scotland.

If we consider the three circular economy principles of eliminating waste and pollution, circulating products and materials at highest value and regenerating nature, these are closely linked with Scottish Water's purpose to support a flourishing Scotland. Examples of our existing activities that support the circular economy include:

- our bioresource treatment centres, some operated by Scottish Water and some by PFI companies. These produced c. 98,000 dry tonnes of biosolids in 2022/23, of which 75,499 dry tonnes were recycled to agriculture, 18,035 dry tonnes used for land reclamation and less than 1% to landfill (394 dry tonnes). We are developing bioresource strategies to maximise opportunities for resource recovery through application to agricultural land and energy generation as well as considering further opportunities to recover resources and deploy emerging technologies.
- our Deerdykes food waste to energy plant is generating 4.6GWh in 2023 (2022: 6.2GWh) of renewable energy with greater than 1,600 tonnes of carbon saved annually.
- co-digestion of waste materials from breweries / distilleries with wastewater bioresources to maximise renewable energy production. Operating at full scale at Nigg treatment works with a 40% reduction in carbon on site and wider potential to generate a potential of more than 4 GWh from brewery / distillery material currently applied to land.
- recovering heat from sewers through our district heating scheme partnerships at Stirling (saving 1,030 tonnes of carbon annually) and Borders College (saving 150 tonnes of carbon annually), as well as a project in construction at the Advanced Manufacturing Innovation District scheme in Renfrewshire.

We are also developing other opportunities that adopt circular economy principles, support our journey to Net Zero, and allow us to adapt our services to a changing climate. These include:

- working with local authorities, developers, SEPA and NatureScot to use blue-green infrastructure to manage surface water, reducing the impact of new development and increased rainfall on combined sewerage systems, which minimises spill events from combined sewer overflows (CSOs).
- repurposing and diverting waste streams from the treatment of wastewater that are currently sent to landfill, this reduces costs and increases the amount of recycled material in the economy (reducing carbon emissions) and opens up potential new revenue streams;
- recovering grit from our wastewater treatment works to produce construction aggregate, with a potential to divert up to 2,000 tonnes per annum from landfill, reducing cost by 50% and carbon by 75%.
- co-processing waste streams from other industries e.g., brewing and distilling to increase energy production, with support from SEPA;
- working with our supply chain partners on new service models for pump refurbishment and reuse, maximises the life of our assets, maintaining service provision and reduces the carbon intensity of our service.

- working with academia and supply chain partners, we are building a demonstrator for nature based wastewater treatment at Newburgh to enhance rural treatment and biodiversity in a sustainable way.
- identifying opportunities to recover materials from wastewater streams e.g. cellulose, phosphorus, reducing chemical consumption for treatment and generating new revenue streams and are designing and developing a “Resource Recovery Factory” to be deployed on an existing wastewater plant (at Alloa) to determine the potential for resource recovery.

Do you have any comments on how proposals in the Bill could help Scottish Water’s strategic priorities in relation to climate change and net zero?

We welcome the development of the Bill and associated route map to 2025. We would encourage a longer-term position on ambitions and directions which would help to inform development of further opportunities.

We thought it would be useful to outline for the committee some of the challenges we face in relation to delivering a circular economy:

- We have strict product standards and processes to protect public health and safety which need to be considered when identifying and implementing initiatives for the circular economy. For example, if we recovered treatment chemicals and re-used them in drinking water systems, they would need to meet approved standards.
- If we consider the trials we carried out for converting grit to aggregate, new markets and supply chains need to be established. The route for funding these initial trials and market assessments is not clear.
- Data on waste streams and by-products is reported by companies to SEPA / Scottish Government. Due to commercial sensitivities this information is not currently available to support reuse / reutilisation or to find synergistic opportunities. Also, each new recovered material also requires regulatory “end of waste” criteria to be achieved. We are working effectively with SEPA on this to date, but wider regulatory reform would assist the transition.

Four areas that would help accelerate our progress in adoption of circular economy approaches are:

- Support to establish routes to market for recovered products and resources such as bioresources, grit, phosphorus and ammonia. We would also encourage the exploration of opportunities to maximise water reuse and recovery to offset non-potable use, for example, the use of final effluent from wastewater treatment plants to provide water for green hydrogen production.
- The development and use of common circular economy metrics across Scotland, with incentives in place to ensure industries and organisations work together to deliver. An example here would be requirements for fertilisers to include a recovered nutrient component.
- Closer alignment across Scotland, UK and Europe to support the adoption of circular economy approaches and to open up wider markets for both resources and products.
- We would support further development of the skills and capabilities needed to drive the development of a circular economy and to play a leading role in catalysing and facilitating research and innovation. Today, there is a complex matrix of policy, legislation and metrics that make delivering a circular economy difficult. We would support a Circular Economy focussed public body to reduce the barriers to delivery.

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I hope this has been helpful and answers the Committee's questions. We would be happy to address any further questions you may have.

Yours sincerely

Alex Plant
Chief Executive