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The Infrastructure Commission for Scotland
PO Box 24137
Edinburgh
EH2 9AJ
E: initial.evidence@infrastructurecommission.scot

Castle House
6 Castle Drive
Carnegie Campus
Dunfermline
KY11 8GG

Customer Helpline
T: 0800 0 778 778
W: www.scottishwater.co.uk
E: Regulation@scottishwater.co.uk

Dear Sir/Madam

Infrastructure Commission for Scotland - Call for Evidence

Thank you for the opportunity to contribute to the Infrastructure Commission for Scotland's Initial Call for Evidence.

Scottish Water is a public corporation accountable to Scottish Ministers. Our purpose is to provide vital water and waste water services to the 97% of household and business customers connected to our system.

During the six years of our regulatory period, 2015-21, we will invest around £3.9 million in maintaining and replacing our infrastructure and in delivering further improvements to drinking water quality, protecting the environment and supporting the Scottish economy. We have outlined below our considerations and evidence we feel most relevant to the Commission's remit.

Key Strategic Drivers

We have undertaken considerable work to identify the key drivers of need for water and wastewater infrastructure investment in Scotland to the middle of the century including both extensive horizon scanning and scenario planning. The key strategic drivers were set out at a high level in our draft Strategic Projections, 'Shaping the future of our waste and wastewater service' that was consulted on during 2018 (<https://www.yourwater.scot/>). The three key strategic drivers we considered to present the greatest challenges for our infrastructure are our changing environment and climate, population growth/shift and maintaining and replacing ageing assets. Below we outline the main impacts we expect these drivers to have on our infrastructure and provision of service.

A changing environment and climate

A changing environment and climate are forecast to impact on water and waste water services in a variety of ways including causing changes in the quality of our source water, the availability and demand for water and increasingly intense periods of rainfall. Long term UK data shows that dissolved organic carbon has increased over the past two decades and is forecast to continue to grow. Changes in our environment will impact on the levels of organic matter in the source water we utilise and will require installation of additional treatment stages to our water treatment works and improvements in catchment management practices.

With regards to rainfall patterns, latest projections show that an increase in rainfall intensity of approximately 45% over the next 30 years would cause a 90-135% increase in water volume in our sewers which they would not always be able to accommodate. Managing this additional rainfall is not only a challenge for Scottish Water and will involve close partnership working with local authorities and developers to transform how surface water is managed. There are opportunities for greater collaboration and innovation with other public sector agencies and developers in how we all manage surface water. We are part of 2 partnerships that are focussed on managing surface water and these are outlined in “*Approaches to infrastructure assessment and prioritisation*” section of this document.

Changes to Scotland’s Population

Latest forecasts by the National Records of Scotland forecast a 5% growth in population, a general west to east migration, continued movement towards large towns and cities and a reduction in average household size due, in part, to an increasingly ageing population. Together these factors will require significant investment to ensure that the public water and wastewater infrastructure will have sufficient capacity to service this changing demand.

Maintaining and Replacing Ageing Assets

Ageing assets present a challenge across all developed economies. For some assets, such as dams and many sewers, we will seek to maintain them in perpetuity, whilst many other assets we own, including water mains, treatment works and all the mechanical and electrical assets, require to be maintained and then replaced at the end of their economic life. Our work with our economic regulator, the Water Industry Commission for Scotland (WICS), and other industry stakeholders indicates that the replacement value of those assets with finite lives is in the region of £30 billion. This work also indicates that the annual investment to maintain, replace when required and enhance our assets in order to continue to meet customers’ service expectations will need to rise from around £600m p.a. at present to around £1bn in 20 years’ time. The need to transition to a sustainable level of financing is the central consideration in the current Strategic Review of Charges (see below).

Role of Infrastructure

Water and wastewater infrastructure is crucial in providing vital water and wastewater services to households and businesses. 97% of Scotland’s household and business properties are connected to the public water and wastewater system. Our services ensure the protection of public health through the provision of clean, fresh drinking water and the protection of the environment by collecting, treating and safely discharging wastewater (including foul sewerage and trade effluent). Through the expansion of our network and additional capacity where required we enable new housing and business development across Scotland.

Appropriateness of current infrastructure

The quality of public water and wastewater services provided is at its highest ever level. Our compliance with drinking water quality regulations in 2018 was at 99.90%. In the same year we achieved the best ever level of environmental performance with the lowest number of environmental pollution incidents. In the Which? 2018 Scottish Consumer Insight Report, the water industry was the most trusted sector.

However, there are gaps to full and robust compliance with all water quality and environmental regulations. Significantly increased investment will be required over the next 20 years to close these gaps as well as to respond to the strategic drivers set out above.

Approaches to infrastructure assessment and prioritisation

The water industry in Scotland has a set of arrangements for planning, financing, delivering and monitoring infrastructure that work well and have evolved over the past 17 years.



Core to these arrangements are periodic Strategic Reviews (of Charges) in which Scottish Ministers set out their objectives for the service levels to be achieved and our economic regulator determines the lowest overall reasonable cost for delivering them.

This Strategic Review process is being peer reviewed by the OCED who inform us that we are an exemplar in seeking to take this approach and face the long term challenges associated with maintaining and replacing our assets.

Beyond Strategic Reviews we have well established cross-industry arrangements for infrastructure assessment, prioritisation and monitoring. Monitoring is undertaken through the 'Outputs Monitoring Group', a cross industry body that reports to Ministers quarterly, which we are building on for the 2021-27 regulatory period.

We are working with stakeholders to build upon our approaches to infrastructure assessment and prioritisation, creating a framework that encompasses long term investment needs to the next set of investment projects that are committed to delivery. This framework will allow stakeholders, customers and communities to understand and input into our investment decisions. This framework will also facilitate greater partnership working. We already work closely with planning authorities and developers to encourage sustainable development in areas where there is surplus capacity in our existing assets, to understand where there could be future constraints and to identify the most efficient ways to resolve these. A dedicated developer infrastructure fund is utilised to ensure water and wastewater network infrastructure is 'future proofed' when installed by developers to avoid repeat upgrade works and additional costs.

Since 2002 we have been working with SEPA, Scottish Government and a number of local authorities and partners, under the banner of the Metropolitan Glasgow Strategic Drainage Partnership (MGSDP), to transform how the city region thinks about and manages rainfall to end uncontrolled flooding and improve water quality. More recently we have joined with SEPA, Scottish Government and local authorities to form the Edinburgh and Lothians Strategic Drainage Partnership to develop innovative and integrated solutions to manage rainwater, flooding, flood risk and growth and mitigate the impacts of climate change. We see managing surface water as one of the key challenges we will face over the coming decades.

This work complements ongoing activities carried out in partnership with SEPA and local authorities across the country to implement the requirements of the Flood Risk Management (Scotland) Act 2009.

We trust the information provided above will be useful to the Commission and we would be happy to provide any further evidence that would be helpful.

Yours faithfully,

Simon Parsons
Director of Strategic Customer Service Planning

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