Draft Climate Change Plan
Scottish Water

1. We welcome the publication of the draft Climate Change Plan and agree with the direction it sets out to deliver the objectives of Scotland’s Climate Change Act. As a public body, Scottish Water continues to focus on the statutory duties placed on us through the Act. In regard to our duties to contribute to Scotland’s carbon mitigation objectives and adaptation strategies the key actions we are delivering are set out in our Business Plan 2015-21, as agreed with Ministers.

2. The duty to support sustainable development is further enshrined in Scottish Water’s founding legislation, and reflected in our wider role in supporting public health, the environment and the economy through high quality, affordable water and waste water services. The most recent duty to report on carbon mitigation and climate change adaptation work is one we welcome, and our 2016 submission builds upon our longstanding commitment to report progress through our annual sustainability report.

3. Climate Change presents a significant challenge for the water industry because we depend on a healthy environment to provide our customers with the daily high quality services they expect of us.

4. A changing climate also presents a challenge to the delivery of our services, particularly when dealing with the impacts of extreme weather. In this respect, we are working in partnership with stakeholders to study, understand and take action to ensure the resilience of our water and waste water services (for example through water resource planning, investment in sewer flooding and partnership work to understand wider flooding issues).

Progress to date in cutting emissions

5. The size of our operational carbon footprint reflects that we are a large organisation with an extensive asset base. However, emissions per household for vital water and waste water services in Scotland are roughly equivalent to the carbon associated with running a fridge freezer.

6. Overall, the carbon intensity (tonnes of carbon dioxide equivalent per mega litre) of water and waste water services in Scotland compares favourably with the wider water sector. Our water service continues to have the lowest carbon intensity in the UK, largely due to the opportunities we have to use gravity to supply many of our customers, while our waste water service now has below UK average carbon intensity.

7. We have been measuring and publishing our annual operational carbon footprint for 10 years and are positively engaged with the Public Bodies Climate Change Reporting Duty. Details of our 2015/16 carbon footprint report can be found within our most recent Sustainability Report, published November 2016, which is available on our website at: https://www.scottishwater.co.uk/about-us/corporate-responsibility/climate-change/climate-change-documents/sustainability-report-2016

8. Our operational carbon footprint for 2015/16 was 390,000 tonnes of carbon dioxide equivalent (tCO$_2$e). This is a reduction on the previous year of almost 3.5% (over 14,000 tCO$_2$e). Our overall reduction since our baseline year of
2006/07 is 16%. This reduction was achieved whilst continuing to invest in our assets to improve services to customers and meet tightening regulatory standards.

9. Three quarters of Scottish Water’s operational carbon footprint is due to electricity used for the delivery of water and wastewater services. The majority of our carbon reduction has been gained through initiatives such as energy efficiency, leakage reduction and the installation of renewable power.

10. We have installed over 4,000 smart meters at our own sites to enable us to target energy efficiency opportunities. By changing operational practices and behaviours and investing in low-cost low-carbon treatment technology, we are on track to reduce base consumption by over 11GWh by 2021.

11. We have also made a significant contribution to enabling Scotland to achieve its carbon reduction targets. We have more than doubled our renewable energy capacity since 2013. Through our own renewable energy generation and the hosting of large scale wind projects on our land, by Summer 2017 we will be enabling renewable generation in excess of our actual annual electricity consumption. Furthermore, by 2018 we will be generating and hosting renewable energy equivalent to twice the amount of electricity we consume (which is around 445GWh annually). We now have over 70 sites with renewable generation including hydro, wind, PV, biomass and CHP; and worked with SHARC Energy to enable the deployment of the first UK heat from sewage scheme, which now provides the Borders College Galashiels campus with over 95% of its annual heat requirements. We are continuing to work with our partners to explore other areas for potential heat from sewage, with over 30 schemes at feasibility stage across Scotland.

12. We are also working closely with a number of local businesses and community renewable schemes in conjunction with Local Energy Scotland with the aim to deliver renewable energy projects. For example, in September 2016 we successfully connected Girvan waste water treatment works to a renewable Anaerobic Digestion Plant, which enables us to receive low-cost green energy whilst supporting local businesses and the local economy.

**Future strategy**

13. We expect to continue to find new ways of reducing our electricity use as new technologies develop, although as the grid decarbonises the associated emissions reductions will naturally become smaller. Therefore, we expect the majority of our future emissions reductions to come from the projected decarbonisation of the UK electricity grid. It is worth noting at this point that we use DEFRA’s UK grid average emissions factors, therefore our electricity emissions do not reflect the lower-carbon of Scottish electricity generation.

14. Our core duty remains the provision of high quality drinking water and waste water treatment for our customers and we are finding innovative ways to avoid possible future increased demand for more energy-intense treatment processes. For example:

- Our sustainable land management activities seek to improve the quality of water resources by working with farmers and landowners, as well as SEPA, to manage catchments more sustainably.
We are interested in peatland restoration largely from a raw water quality perspective but recognise that restored peatlands sequester more carbon and we have been working to identify areas that may be suitable for restoration.

We have established two development centres where innovations in both water and waste water treatment can be tested safely in a real treatment environment.

Our Social Housing Trial will enable us to improve water efficiency while giving some of our customers an opportunity to reduce energy costs.

15. We continue to seek wide renewable opportunities to meet the ambitious targets set out in our business plan and we will consider the far-ranging policies and proposals for 2017-32 in the context of the current and future Business Plan periods.

16. Scottish Water’s detailed commitments to support Scotland’s plans for Climate Change, both mitigation and adaptation, are incorporated into our regulatory Business Plan for 2015-21, which is available at:

https://www.scottishwater.co.uk/about-us/publications/strategic-projections

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