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## **Call for Expert Evidence to support and inform the 2023 Climate Action Plan**

To Whom It May Concern,

I write to you in the context of Central Solutions' role as promoting and delivery organisation for a number of national initiatives related to the next Climate Action Plan:-

- Water Stewardship Ireland

We very much welcome the Publication of the 2023 Climate Action Plan and the opportunity to provide feedback and input on one specific area, namely:

- Climate Action and Water Stewardship

### **If Climate Change is the Shark, Water is its Teeth: The Water-Energy-Carbon Nexus**

The 2021 Climate Action Plan highlights the main impacts that climate change will have on the hydrological cycle (DECC, 2021). It is likely that in Ireland we will feel the impact of climate change most profoundly through water, both at home and at work; and therefore, we believe more emphasis needs to be placed on the role of water in supporting our climate objectives in the 2023 Climate Action Plan.

While mitigating the threat that Climate Change presents to our water security is a key consideration in this context, **proactive water resource management** can also contribute to meeting Greenhouse Gas (GHG) emission reduction targets through decarbonisation of energy sources for water services, resource efficiency in treatment and distribution of water. Furthermore, there is the potential for resource recovery of water, energy, biosolids, nutrients (such as phosphorus and nitrogen), and the associated upstream and downstream GHG emission savings.

### **Lessons from Europe**

We note the national decarbonisation and climate mitigation roadmaps for water carried out in the UK (Water UK, 2020) and Denmark (Danish EPA, 2021), outlining the decarbonisation potential of renewable energy sources for electricity and thermal energy requirements, improving operational efficiency through operation optimisation and upgrading old infrastructure, resource recovery, GHG sequestration and offsets. Furthermore, in addition to the inclusion of energy related emissions (fossil fuel combustion), the Danish EPA's methodology for GHG emission definition and measurement also include process and fugitive emissions from water and wastewater treatment plants.

Going forward, it will be important to be cognisant of the relationships between climate action, water and other national policy areas to identify potential synergies and challenges. For example, the EU Zero Pollution action plan outlines a number of high-level targets which may involve more stringent wastewater emission limits at wastewater, industrial and energy facilities which typically require more energy intensive processes, resulting in greater direct and indirect GHG emissions. Understanding these trade-offs will allow for more coherent national policies and underlines the importance of understanding the water-energy-carbon nexus to help meet climate action targets.

### **Water Stewardship as a catalyst**

Ireland has been at the forefront of the water stewardship movement in Europe over the past decade. Water Stewardship Ireland was established as the Large Water Users Community of Practice in 2013 by a network of voluntary companies working to promote better water stewardship practices within their operations in Ireland.

This network has identified Water Steward training as a critical component in helping organisations manage their water usage and reduce their energy emissions. In the past four years of running Certified Water Steward Programmes as part of the Lean & Green Skillnet we have trained over 400 large and medium sized water users, resulting in 1,400+ water conservation, protection and catchment actions being identified across the country. If every medium and large water user in the country had a fully trained Certified Water Steward the impact on emissions would be significant.

Hence, we believe that unlocking the potential for addressing emissions in the water sector and a focus on Water Stewardship at the industry level deserves greater attention in the Climate Action Plan.

***Ends.***