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01/08/2025

EPAC Reference No-1925
Re: Public Consultation on the draft Water Quality and Water
Services Infrastructure Sectoral Adaptation Plan, 2025

Dear Sir/Madam,

The Environmental Protection Agency (EPA) welcomes the opportunity to respond to this consultation on the draft Water Quality and Water Services Infrastructure Sectoral Adaptation Plan, 2025 (Water SAP).

The development and implementation of robust sectoral climate adaptation plans is critical to national resilience. These plans are particularly important in the context of a changing climate, where the frequency, intensity, and unpredictability of extreme weather events are also increasing, as highlighted in Ireland's National Climate Change Risk Assessment (NCCRA) recently published by the EPA.

Overall, the plan demonstrates reasonable alignment with the National Adaptation Framework and the Sectoral Planning Guidelines for Climate Change Adaptation 2024, involving strong stakeholder input that the EPA was involved in at the planning team stage. In the context of increasing climate risks, it is important that adaptation is embedded across all levels of water policy, capital investment frameworks, and procurement processes. We recommend that climate resilience be a core criterion in project appraisal and funding decisions for all water sector authorities, particularly for long-lived infrastructure and that a minimum level of climate resilience to RCP4.5 by 2050 is used to ensure sufficient headroom and environmental protection.

We also recommend that the comments provided by the EPA in response to previous drafts be taken into account.

# **Key EPA Recommendations**

The EPA recognises many positive aspects of the plan; however, we have identified six areas that we recommend should be strengthened before the Water SAP is finalised. These are:

- 1. The overarching vision of the plan should include reference to climate change or climate resilience;
- 2. A more detailed risk assessment should to be undertaken and communicated in the plan;
- 3. More comprehensively addressing the three National Adaptation Framework principles of just resilience, Nature-based Solutions, and maladaptation within the plan should occur;
- 4. Elaborating on the cascading impacts as laid out in the NCCRA;
- 5. Additional climate resilience actions should be identified;
- 6. Clear indicators and targets should be put in place to track the implementation of actions and resilience outcomes.

These points are further developed below:

# 1. Overarching vision statement should include reference to climate change or climate resilience

The EPA recommends that the overarching vision statement for the plan should include reference to climate change or climate resilience. As per the Sectoral Adaptation Planning Guidelines, the integration of adaptation at a sectoral level should aim to "systematically add a climate resilience lens as a criterion for the success of sectoral policy, strategies, and projects". We also recommend that the vision statement references the people of Ireland and just resilience concepts.

## 2. Risk assessment

The NCCRA Technical Guidance for Sectoral Risk Assessments was published by the EPA in 2024 in order to support sectors in developing more detailed, sector specific risk assessments to follow on from the NCCRA. There is scope for the Water SAP to include a more granular evaluation of impacts under a reference trajectory of at least RCP4.5, clearly categorising risk types, identifying vulnerable populations, and addressing cascading and systemic risks. The risk assessment should also align with future climate and population projections, and present risk data consistently and accurately. For example, one of the risks requiring further investigation is drought impacts:

- Whether it is feasible to maintain a sustainable supply within environmental limits in the context of current projections of population growth along with the outputs of TRANSLATE and HydroPredict.
- Low flows and water levels will also cause an increased emergence of barriers and a physically smaller habitat, impacting Q values.

The Water Framework Directive (WFD) characterisation and status assessment outputs should be appropriately referred to in the climate risk assessment. Chronic and acute impacts on the water environment and water services infrastructure should be clearly and distinctly identified.

# 3. Further consideration of National Adaptation Framework principles

The EPA recommends a more in-depth and systematic consideration in the plan of the key National Adaptation Framework principles of Just Resilience, Nature-based Solutions and Maladaptation.

#### Just Resilience

Just resilience and vulnerability should ideally have been taken into account as part of the risk assessment process. In implementing the plan, actions relating to just resilience should be devised and should be progressed in an integrated way with other sectors, to ensure just resilience is being considered consistently across sectors with no gaps. For example, there is potential for water quality disruption to disproportionately impact on the environment and communities in areas with significant pressures on water such as the South-East and for water services infrastructure disruption to disproportionately impact coastal communities serviced by certain types of WWTPs. The EPA recommends that the Department engages with the relevant sectors on incorporating these considerations into water sector adaptation planning.

## Nature-based Solutions

The water quality and water service infrastructure sectors' exposure to climate hazards – particularly flooding, coastal erosion, and extreme heat – necessitates a proactive approach to climate-proofing critical infrastructure. Nature-based Solutions are a key aspect of the actions in the plan, which is welcome; however, no narrative is given within the plan as to the importance of Nature-based Solutions in the Water sector. This should be addressed in finalising the plan.

# Maladaptation

There is no consideration of maladaptation in the draft plan. The EPA recommends that further consideration should be given to the potential for water adaptation actions to cause maladaptation more broadly; for example, the potential for necessary limits on abstractions to lead to higher levels of water shortages in towns, or the potential to exacerbate environmental pressures by focusing on adapting existing infrastructure without considering the provision of new infrastructure.

Maladaptation and the wider environmental impact of the plan actions should be appropriately assessed.

# 4. Cascading impacts

Cascading impacts entering the Water sector are named and described, however, they do not clearly factor into the risk assessment prioritisation or outcomes. The cascading impacts that the Water sector can have on other sectors are not adequately acknowledged. All cascading impacts relating to the Water sector highlighted by the NCCRA should be addressed in the Sectoral Adaptation Planboth cascading into and out of the sector. Examples of such cascading impacts include:

- 1. Water supply contamination as a result of overland flows of pollutants to watercourses due to extreme precipitation may increase risk of waterborne disease (Water Supply impacts cascading into Health impacts), or
- 2. Decreased freshwater quality can pose issues on access to water and inability to discharge cooling water in power stations. (Water Quality impacts cascading into Energy sector impacts).

The impacts that the Water sector has on health systems, agriculture, and social systems are touched on but merit further attention. Cascading impacts were highlighted in the NCCRA with a table of cascading impacts supplied, which should be taken into account (Appendix E of the NCCRA Main Report and in supplementary material).

# 5. Actions

The actions contained in the plan can support resilience and are necessary for resilience planning, however, they are not likely to be sufficient to ensure resilience into the long term. It is important to take note of the European Union (Resilience of Critical Entities) Regulations 2024 (S.I. No. 559 of 2024), which transpose the Critical Entities Resilience Directive. These regulations include drinking water and wastewater sectors as critical entities, requiring them to implement proportionate technical, security, and organisational measures to enhance resilience—particularly in preventing incidents and addressing disaster risk reduction and climate adaptation. Additional resilience actions should be identified looking forward to address acute and chronic risks to at least 2050. Actions should cover both water quality and water services and should extend beyond 2027 looking into the long term. Actions already scheduled for completion should not be included, nor should ongoing actions that have already been initiated.

More comprehensively linked resilience-focused actions are required in this plan, such as ensuring observational hydrometric networks are appropriately centrally funded to ensure river climate vulnerability monitoring and modelling can be properly carried out.

Where relevant risks in the NCCRA have been classified as requiring "further investigation", then the required further investigation should be covered in the SAP actions. For example, drought risk to water supplies and the receiving environment due to abstractions should be addressed in the National Water Resources Plan (NWRP). However, since the NWRP was published, population projections are now higher, and the NCCRA Technical Guidance for Sectoral Risk Assessments recommend using RCP4.5 at a minimum. The analysis should be redone to ensure the NWRP is still valid.

## 6. Indicators

The EPA recognises the inclusion of proposed annual and interim reviews to track and revisit the plan. We also recognise that planning in a cohesive way considering the WFD and Water Action Plan is a key part of the adaptation planning process for the Water sector and that the actions are formulated using SMART principles. However, indicators should be developed for the actions proposed in the plan, particularly outcome indicators, to enable tracking of improved resilience. These actions should be clearly linked to measurable resilience outcomes, including the level of protection they provide. They should integrate climate-proofing, reflect updated climate and demographic projections, and address systemic interdependencies such as cascading impacts. Monitoring and data infrastructure should be strengthened to support adaptive management, and all actions should be underpinned by transparent, consistent criteria for evaluating progress.

## **SEA Screening**

We note your initial conclusion that SEA is not required for the Plan. We also acknowledge that the EPA's SEA Screening guidance and the EPA's State of the Environment Report 2024 were considered during the screening process. As soon as practicable after making your determination as to whether SEA is required or not, you should make a copy of your decision, including, if appropriate, the reasons for not requiring an environmental assessment, available for public inspection in your offices and on your website. You should also send a copy of your determination to the relevant environmental authorities consulted.

Where changes to the Plan are made prior to finalisation, or where modifications to the Plan are proposed following its adoption, these should be screened for potential for likely significant effects in accordance with the criteria set out in Schedule 1 of the SEA Regulations (S.I. No. 435 of 2004, as amended), as appropriate.

## **Further Research**

The EPA notes that key research gaps have been identified in the draft plan. The EPA would welcome engagement with the Department on the potential to address some of the identified research gaps through the <u>EPA's Fast Track to Policy</u> research funding programme, which provides for rapid turnaround evidence reviews to address urgent policy-relevant questions.

The EPA looks forward to continuing to work with your Department as part of the Sectoral Adaptation Planning process and is available to discuss any aspect of this submission.

Yours sincerely,

Dr Tara Higgins

Jan Higgins

Programme Manager