



NRW Briefing: Welsh Government priorities in relation to climate change, environment, and infrastructure

September 2021

Introduction

NRW welcomes the opportunity to provide our views to the Climate Change, Environment and Infrastructure Committee on the [Welsh Government priorities](#) in relation to climate change, environment and infrastructure.

We undertake various pivotal roles which can support the Welsh Government's response to the climate and nature emergencies, and also contribute towards the delivery of prioritised infrastructure. This allows us to deliver integrated natural resource management to achieve positive outcomes for people, the environment, and the economy. For example:

- **Adviser:** We provide technical and evidence-based advice to Welsh and UK Governments and other key stakeholders on a wide-range of topic areas which include but are not limited to: waste management, water resourcing, climate change, biodiversity, energy, and spatial planning for the marine and terrestrial environments. For example, advice on how proposed changes to legislation or new legislation can potentially affect the environment and its natural resources.
- **Regulator:** We protect people and the environment by ensuring that businesses and individuals operate within the law when their actions impact on the environment.
- **Statutory consultee:** We are a statutory consultee in the planning system where we provide advice to planning authorities and developers on the potential environmental effects from proposed schemes.
- **Land Manager and enabler:** We manage 7% of Wales's land area as National Nature Reserves. We own and operate 500km of defences and 4,000 assets to reduce risk of flooding, and enable and facilitate the deployment of renewable energy production on NRW managed land.
- **Partner and educator:** We provide grant aid to help improve the environment, offer opportunities for people to learn about their natural surroundings, and work with partners on actions, research, and campaigns to increase water efficiency across all sectors. We work with stakeholders to deliver our Woodland Creation Programme to support the delivery of tree planting

- **Evidence gatherer and communicator:** We commission, undertake and collate environmental information to inform environmentally informed decision-making. We provide a flood forecasting and warning service, including a network of rain and river gauges and processing all information, and key player and adviser in emergency response to flood events.

We are supportive of the priorities that the Welsh Government has identified in their letter and have provided more detailed responses to each of the sections in it below. As part of this, we have also identified some additional areas which merit priority attention.

We welcome Welsh Government's commitment to develop permanent environmental governance arrangements following the end of the EU transition period. We consider this a priority and will welcome opportunities to support the Welsh Government to develop the required legislation.

One of our statutory responsibilities is to produce a [State of Natural Resources Report \(SoNARR\)](#) at the end of each Welsh Parliamentary term. The purpose of that report is to assess Wales' progress towards the sustainable use of natural resources.

Our most recent report published in 2020 highlighted that in order to tackle the nature and climate emergencies, transformative changes are needed to the way we live. Transforming the energy, food and transport systems will be a key part to this, as these are the biggest drivers of environmental change. We welcome the inclusion of two of these systems in the committee's list of priorities, as well as the intention to work across sectoral boundaries as this will be key to addressing the challenges Wales faces.

At the global level, the Dasgupta review (the Economics of Biodiversity) for the UK Treasury sets out its analysis on the changes in governance we need in order to address the nature and climate emergencies. It also shows how we can address the global impact of our use of natural resources and work towards the Wellbeing goal of 'a globally responsible Wales'. We would like to see the recommendations of the Dasgupta Review considered more explicitly in the Committee's list of priorities.

Climate Change

We support the legislated WG emission reduction targets and budgets, which are in line with the independent advice from the UK Committee on Climate Change. They provide a challenging and yet feasible route to decarbonise Wales. The focus now needs to shift to their delivery. While the imminent publication of the next Low Carbon Delivery Plan – *Net Zero Wales* will inevitably provide an important driver to action, it will be essential for the Plan to be seen as a living document rather than set for the next 5-year cycle. Many decarbonisation technologies and practices are evolving rapidly so periodic review of the Plan and barriers to delivery should be an important priority. Within NRW and the wider public sector, there are many challenges to decarbonisation, particularly transforming our buildings and procurement.

Whether at the global, national or local level, the response to climate change has been dominated by the need for decarbonisation – and in many respects quite correctly – but with the increasing frequency and magnitude of impacts of climate change and particularly extreme events, it is now essential that greater focus is given to climate risk and the need for adaptation. The recent publication of the Climate Change Risk Assessment: CCRA3

and the Sixth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) report reinforce the urgency of further action. Consequently, reviewing progress of delivery of the Welsh Adaptation Plan particularly in light of the revised CCRA risks should be a priority over the next 18 months. NRW is working towards applying the ISO14009 Adaptation Standard to deliver a coordinated approach to our management of climate risk across our remit and it will be important for all organisations to address climate risks in future.

Energy & net zero

We welcome the direction of travel that is set out in this letter in relation to renewable energy development, as well as Welsh Government's commitment to expanding local energy production, with hydrogen as part of the solution.

We would encourage focussing on the development of 'green hydrogen' as the preferred type of hydrogen for production and use in Wales where possible and sustainable. Green hydrogen production through electrolysis (with electricity from renewable sources) is consistent with the net-zero route.

Energy and decarbonisation is a fast-moving field with discussions happening around the role of many different technologies, including hydrogen, electrification and carbon capture and storage. The priorities for the next 12 to 18 months should become clearer following CoP26 and the resulting targets.

Regardless of the technologies used, reducing demand and increasing energy efficiency will be key to achieving net zero. We would like to see this reflected more strongly in the Committee's priorities.

As part of a systems approach to energy, as highlighted in the SoNaRR report, we would like to see the role of both energy supply and demand covered more explicitly. The role of consumers is a key part of the energy system, in terms of reducing demand via energy efficiency and of changes in supply via local generation. Welsh Government may wish to look at what support may be required to increase the uptake of micro renewables by households, alongside efficiency measures.

Another part of the energy system which requires special attention are industrial sectors such as steel, chemicals and cement as well as shipping and aviation, where current technology options for reducing emissions are limited. Decarbonising these sectors will require the development of new technologies which are not currently in use at scale. Many of the clean energy technologies available today need more work to bring down costs and accelerate deployment. This calls for urgent efforts to accelerate innovation.

Innovative approaches are also needed for energy storage or what fuel will be used when demand cannot be met by renewables. This may or may not include fossil fuels as well as waste and biomass (with carbon capture) and nuclear. The Welsh Government's current position on energy from waste and the circular economy is clear. However, it is likely that it will always be difficult to recycle waste and from the options currently available to us, recovering energy from unrecyclable waste streams is preferable to landfill. When district heating systems are included with such schemes there is potential for reliable energy and heat supply and a waste management solution at the same time.

Future Wales and the policy direction provided in Planning Policy Wales provides a framework intended to steer the right forms of renewable energy technologies to the locations better suited to accommodate such development. It will be important to keep under review how those policies are effective in supporting the delivery of renewable energy technologies whilst ensuring the protection and enhancement of our environment. Additionally, we should be alive to any challenges to deliver the required transmission network infrastructure.

We are pleased to see that Welsh Government is exploring how to make use of the proposed UK Emissions Trading Scheme to deliver on Wales' ambitions for decarbonisation.

The Marine Energy Programme

We agree that the marine energy programme has the potential to be an important driver of investment and jobs. Given Wales' extensive wind, wave and tidal energy resource, marine renewable energy development has the potential to deliver low carbon energy at considerable scale, beyond that already achieved in Welsh waters.

In order to fulfil this potential, alongside Welsh Government's commitment to nature recovery, it will be essential to ensure that development takes environmental capacity into consideration. Consenting novel and large-scale marine technologies is complex and a challenging process for developers, regulators, advisors and government. We consider that decision-making legislation is fit for purpose but gaps in marine environmental evidence are a particular challenge and can cause consenting delays because of the uncertainties about the significance of environmental impacts.

A coordinated policy approach will also be critical to optimising choices between technologies and locations, and to provide the necessary support for strategic planning and evidence gathering. The aim should be to ensure that we have the right technologies in the right locations so that our response to the climate emergency is consistent with our response to the nature emergency. The Welsh National Marine Plan has made a start but more specific policy, planning and evidence gathering is needed. NRW's Offshore Renewable Energy Programme is also working to address this challenge.

Tree Planting

We are supportive of the letter's inclusion of priorities which aim to achieve a step-change in the rate of tree planting. Achieving this change will rely to a large extent on the implementation of the recommendations of the Deputy Minister's deep dive into tree planting. In addition, more clarity is needed on the delivery of the National Forest.

As a long-term strategic programme, the National Forest programme needs to complement other initiatives, including the development of the Sustainable Farming Scheme and any new woodland creation, management and restoration scheme that replaces Glastir. This will require a coordinated approach, including engaging and working with farmers, landowners and communities, as well as a clear medium to long-term commitment to funding and innovative finance solutions. Work to raise the profile of timber,

to support the sector and encourage more widespread use in construction, is also important and will be addressed through the development of an Industry Strategy.

We welcome Welsh Government's commitment to publish a new Woodlands for Wales Action Plan later this year and are of the view that this should be ambitious and forward looking and reflect all the twenty outcomes of the Woodlands for Wales strategy.

More action is needed to improve the resilience of newly planted, as well as existing, woodlands. Climate change, pests and diseases and air pollution pose a particular risk to resilience. Sound silvicultural management, in accordance with the UK Forestry Standard, should be at the heart of a drive for more woodlands diverse in terms of species and age.

Finally, trees and woodlands have a vital role to play in helping to tackle both the climate and nature emergencies, for example by sequestering carbon and helping to mitigate some of the impacts of climate change. This applies not only to rural woodlands, but also to the urban environment, such as street trees and trees in parks and gardens. We'd like to see the importance of trees and woodlands as a nature-based solution reinforced at every opportunity.

Nature and biodiversity

The crises of climate change and biodiversity loss are inextricably linked. Biodiversity loss is made worse by climate change, and vice versa. However, creating and restoring biodiverse habitats on land and in our seas lock up carbon, and nature can also provide solutions for helping us to adapt to climate change, such as by reducing flood risk. This inextricable link between the crises of biodiversity loss and climate change is why we need to tackle them together. We need to demonstrate a route to becoming Nature Positive by 2030 whilst also contributing to Net Zero commitments. This will support UK and international ambition at COP15 and COP26.

Nature needs sufficient space with appropriate protection to support thriving species populations and healthy resilient ecosystems. Targets can inform the scale of action required and promote and highlight action by the range of individuals and sectors. Robust targets are important to guide action and resource allocation. Legally binding targets for nature could provide a strong mechanism to ensure action on the ground in Wales.

At sea we need to continue to focus effort on improving the condition of the extensive network of marine protected areas, in order to both build marine ecosystem resilience and enhance blue carbon stores.

As well as the actions required to support nature recovery on the ground, we also need to look at what changes need to be made to transform the socio-economic systems that are currently driving the loss of biodiversity.

Circular economy

Enabling the movement towards a circular economy is an important factor in decarbonising Wales, and we agree with the Welsh Government that further reducing the amount of waste generated and ensuring that produced waste can be truly reused or recycled is key. Where neither is possible, the waste is disposed of appropriately. We welcome the enhanced importance attached to waste reduction in the Welsh Government's waste strategy, Beyond Recycling, which makes commitments and identifies actions to achieve a one planet resource use and zero waste aspiration for 2050.

Recent legislation such as the Environment (Wales) Act 2016 has made provision for increasing the amount of materials for recycling, improve the quality of materials available for recycling, and ensure that materials that could be recycled are not wasted. We are currently advising both the Welsh and UK governments on further legislation such as on proposals for extended responsibilities for waste producers, proposals for further restrictions on recyclable materials sent to landfill, and mandatory waste data tracking. These will help achieve the aims set out in Beyond Recycling. However, careful consideration will be required to understand what will be required by different actors to effectively implement the intended aims of the new legislation. Additionally, we cannot overlook the current problem of waste crime and its adverse impacts in delivering a circular economy, including its impact on resourcing the delivery of existing and new legislation and government aspirations. Identifying and supporting innovative solutions to tackle waste crime should go hand in hand with developing and delivering new approaches for delivering a circular economy.

Environment

We welcome the recognition by the Committee that addressing the challenges that our environment faces will require Wales to take a systems approach, which looks at the root causes for change and the use of technological innovations and behaviour change to address these.

We welcome the inclusion of the water ecosystem in this section. Good water quality and a reliable water supply are essential for the health and well-being of people, critical for a thriving economy and vital for nature. For that reason, we'd like to see the focus of the Committee to be broadened out beyond wastewater, to cover the sustainable management of water, particularly as both supply and demand for water faces a number of pressures, including climate change and increases in overall water usage.

For flood risk management, we have identified a number of major challenges. These are summarised below:

1. We need to properly look after all the infrastructure and assets that have already been put in place to help manage flooding. As well as flood defences, that includes flood warning systems, flood modelling and mapping tools, networks of community flood plan leads and on-line resources of information and advice. All of these need continued investment to avoid the risk of flooding increasing.
2. The need for adaptation, at pace. Climate change is happening at a rapid pace. We need to make plans for the long term for our communities at locations at greatest

risk and we need to start implementing these when trigger points are met. We need to identify the pathway to adaptation, at a catchment scale. It is about making space for significant quantities of water, and taking tough decisions on spatial planning and what it means for communities. This is a significant amount of work in terms of resource and effort.

3. The need for building resilience, again at pace. We need to ensure that there is a real understanding of the risks of flooding and what communities can do to help themselves and each other. It is also about increasing property resilience to flooding, so that when homes and businesses are flooded, they can be up and running as soon as possible afterwards.

Town Centre Regeneration

We welcome Welsh Government's Transforming Towns Programme and we agree that green infrastructure/nature-based solutions have an important contribution to ensure the long-term sustainability of towns and city centres and the wider benefits to people and the benefits from their natural resources. It can help to create an environment that is more attractive to both people and wildlife, deal with problems like surface water flooding as well as encourage investment into town and city centres.

SoNaRR2020 identified the loss of urban trees and an increase in flooding as some of the issues of concern in the urban environment. These issues could usefully be considered as part of the Transforming Town Programme. This will require long-term thinking and investment as some green infrastructure solutions, such as urban trees and sustainable drainage schemes, will take many years to deliver the full range of benefits at scale, that they are able to provide.