



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

Managing today's natural resources for tomorrow's generations



Our Corporate Plan to 2022



Noddir gan
Lywodraeth Cymru
Sponsored by
Welsh Government

Our vision

As Natural Resources Wales we are proud to be leading the way to a better future for Wales by managing the environment and natural resources of Wales sustainably.

Our Well-being Objectives are to:

- **Champion the Welsh environment and the sustainable management of Wales' natural resources**
- **Ensure land and water in Wales is managed sustainably and in an integrated way**
- **Improve the resilience and quality of our ecosystems**
- **Reduce the risk to people and communities from environmental hazards such as flooding and pollution**
- **Help people live healthier and more fulfilled lives**
- **Promote successful and responsible business, using natural resources without damaging them**
- **Develop NRW into an excellent organisation, delivering first-class customer service**

NRW was established in 2013 to care for and advise on the natural environment in Wales and its natural resources. We are the largest Welsh Government sponsored body and have a wide range of roles:

- **Adviser** to the Welsh Government and to industry, land owners/managers, the wider public and voluntary sector
- **Regulator** of industry and waste sites, and marine, forest and Designated Sites for example, protecting people and the natural environment
- **Designator** for Sites of Special Scientific Interest (SSSIs), Areas of Outstanding Natural Beauty (AONBs) and National Parks and declaring National Nature Reserves (NNRs)
- **Responder** to about 9,000 reported environmental incidents a year as a Category 1 emergency responder
- **Statutory consultee** to about 9,000 planning applications a year
- **Manager** of 7% of Wales' land area, including Welsh Government Woodland Estate, National Nature Reserves and flood defences and running recreation facilities and a laboratory
- **Partner, educator and enabler**, supporting and facilitating other organisations' work and helping people learn in and about the natural environment
- **Evidence gatherer**, monitoring the environment, commissioning and undertaking research, developing and sharing knowledge and holding public records
- **Employer** of about 1,800 staff as well as contractors and volunteers

The breadth of our work can be seen in this video [What We Do.](#)

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Foreword

The natural environment of Wales is exceptional and inspiring. It is the foundation for our health, well-being and prosperity. It provides the air we breathe, the water we drink and the food we eat. It provides energy and raw materials. It is essential to our way of life – providing jobs, leisure and relaxation, and attractive places for us to live, work and enjoy. It is part of our culture, our history and our future. We can't live without it – but all too often, we take it for granted.

The benefits that the environment and natural resources of Wales provide are under pressure from human activity. Biodiversity is declining. Ecosystems are becoming less resilient and less able to adapt to challenges such as climate change. Yet natural resources can help address many of the issues we're facing – flooding can be mitigated by tree planting, which also improves air pollution and provides green areas for people to enjoy; well-managed soils can improve water quality, store carbon and continue to grow food. There are huge opportunities to improve everyone's lives – but this can only happen if the natural environment is managed sustainably and recognised for the benefits it provides. This is vital for the future – to enhance the natural environment and secure the well-being of future generations.

Things need to change – and we can all make this happen by living and working differently.

Natural Resources Wales (NRW) is proud to be leading this change.

In March 2017 we published our first set of long-term [Well-being Objectives \(WBOs\)](#) building on our first [State of Natural Resources Report \(SoNaRR\)](#), which set the baseline and links the resilience of Welsh natural resources to the well-being of the people of Wales. These show how natural resources can continue to benefit the health and well-being of the people of Wales for the future – if those resources are managed sustainably.

There are plenty of challenges ahead: climate change, the UK's withdrawal from the EU, austerity and an ageing population, to name but a few. Managing Wales' natural resources sustainably and ensuring ecosystems are resilient can help address some of these challenges, and we are ready to make this a reality.

Meeting our Well-being Objectives will be a long-term challenge but vital for the future. We're near the start of the journey: we've already made progress, we're learning along the way and we're ambitious about what we want to achieve as NRW, supporting our own staff and working in partnership with many others throughout Wales.

NRW is moving to an exciting new chapter with this Corporate Plan. It will be taken forward by our new Chief Executive, Clare Pillman, building on the first five years with our first Chief Executive, Emyr Roberts, and with Kevin Ingram as our interim Chief Executive.

This Corporate Plan sets out the next stage of our journey. We hope you find it inspiring and ambitious – and look forward to working with you towards a more sustainable Wales which will provide prosperity for all.



Diane McCrea,
Chair



Clare Pillman,
Chief Executive



Kevin Ingram,
Interim
Chief Executive

Part 1

Welcome

This is the second Corporate Plan NRW has produced since it was set up in April 2013; it takes us up to 2022.

The plan builds on our [Well-being Statement](#), published in 2017. This described our seven Well-being Objectives (WBOs) and the steps we need to take to achieve them.

Our Well-being Objectives are:

WBO1: Champion the Welsh environment and the sustainable management of Wales' natural resources

WBO2: Ensure land and water in Wales is managed sustainably and in an integrated way

WBO3: Improve the resilience and quality of our ecosystems

WBO4: Reduce the risk to people and communities from environmental hazards such as flooding and pollution

WBO5: Help people live healthier and more fulfilled lives

WBO6: Promote successful and responsible business, using natural resources without damaging them

WBO7: Develop NRW into an excellent organisation, delivering first-class customer service

Our Well-being Objectives in context

Our Well-being Objectives demonstrate how we want to contribute to the goals set out in the [Well-being of Future Generations Act \(Wales\) 2015](#). We will do this by pursuing the sustainable management of natural resources (SMNR) and applying its principles – which is our prime purpose as set out in the [Environment \(Wales\) Act 2016](#).

By SMNR we mean looking after all natural resources (which include air, water, soil, wildlife and geological and climatic processes) in a way, and at a rate, that ensures they will be available now, and for future generations. This requires working in a way that better understands and values the natural environment, is more joined-up and more proactive.

This approach is focused on ensuring that we have a natural environment with ecosystems that are resilient – able to cope with change now and in the future, and that are valued both for their own sake, and for the benefits they provide for people. By ensuring that ecosystem resilience is improved, the natural environment and people can continue to realise these benefits now and for future generations.

Our Well-being Objectives, together with their underlying actions, reflect the Welsh Government's [Prosperity for All - The National Strategy](#) based on [Taking Wales Forward – the Programme for Government](#).

We developed the Well-being Objectives collaboratively with our staff and stakeholders, adopting the five ways of working set out in the Well-being of Future Generations (Wales)

Act 2015. Through resilient ecosystems, we aim to help create a Wales which is prosperous and secure, healthy and active, ambitious and learning and united and connected. *How* things are delivered is just as important as *what* is delivered.

Achieving Wales' seven Well-being Goals – a Wales that is prosperous, resilient, healthy, more equal, has cohesive communities, a vibrant culture and Welsh language and is globally responsible – will help create the Wales we want in future and will contribute to the seventeen [2030 United Nations' Global Goals for Sustainable Development](#) which help address some of society's greatest challenges worldwide.

And as well as climate change, the [World Economic Forum](#) has listed among the top global risks that need to be managed:

- Increasing inequality, including within developed countries
- Rebuilding communities by bringing together different generations and cultures
- Changing patterns of work due to technological advances
- Strengthening global co-operation

Of course, these all apply to Wales. Our Well-being Objectives will enable the natural environment in Wales to help address these issues on a local, national and international scale. And by improving the resilience of our ecosystems and managing natural resources sustainably, people can continue to benefit from what they provide.

The [Welsh Government's Natural Resources Policy \(NRP\)](#) sets out three key challenges for managing natural resources in Wales:

- Improving ecosystem resilience
- Addressing climate change and the decline in biodiversity
- The UK's withdrawal from the European Union

It has also highlighted three national priorities where the sustainable management of Welsh natural resources can help provide considerable benefit:

- Delivering nature-based solutions, such as those suggested in SoNaRR
- Increasing renewable energy and resource efficiency
- Taking a place-based approach – working locally in a joined-up way

Responding to these challenges and working with these priorities can be seen throughout this Corporate Plan – both in how we approach our work and how we are restructuring to facilitate better delivery.

Our Corporate Plan will also help realise the headline opportunities associated with natural resources as set out in the NRP:

- Supporting successful, sustainable communities
- Promoting green growth and innovation to create sustainable jobs
- Supporting a more resource-efficient economy
- Maintaining the well-being of the people of Wales

State of Natural Resources Report (SoNaRR) 2016

Our 2016 [State of Natural Resources Report \(SoNaRR\)](#) was the first of its kind. It set out the state of the country's natural resources and assessed the extent to which they were being managed sustainably.

And – uniquely – it linked the resilience of Wales' natural resources to the well-being of people in Wales.

SoNaRR suggests examples of nature-based solutions which should be focused on to help deliver not only the sustainable management of natural resources, but also the optimum benefits for people, now and in the future. These are:

- Increased green infrastructure – trees and greenspace, particularly in urban areas
- Increased woodland cover and more woodlands brought into management
- Coastal-zone management
- Working within whole water catchments
- Better soil management
- Better utilisation of the uplands
- Integrated management of marine ecosystems

All of these approaches deliver multiple benefits for people – more green infrastructure in urban areas, for example, can help reduce pollution and localised flooding and provide opportunities for recreation right on people's doorsteps, improving health and, in some cases, providing jobs.

The UK's withdrawal from the European Union (EU)

Much of the policy, legislation and finance that supports natural resources comes from the EU. This includes funding for agri-environment schemes and LIFE funding for supporting environmental, nature conservation and climate action projects throughout the EU. With many EU Directives setting the standards and guiding much of our work, and the fact that many environmental issues will cross political boundaries and will require national and international co-operation, the challenges and opportunities post Brexit are particularly significant for the sustainable management of natural resources.

We are working closely with the Welsh Government to address the challenges and make the most of the opportunities, influencing and helping to develop the best options for managing natural resources in Wales sustainably. This includes standards and regulation for air and water quality and waste, for example, as well as the right environmental scheme and financial support and advice for farmers, foresters, industry and other land and water managers. This will help ensure that the natural environment and its ecosystems are resilient and can provide the best benefits for people now and in the future.

This is a recurrent theme throughout the Corporate Plan and is fundamental to the achievement of each of our Well-being Objectives.

Our Corporate Plan to 2022

This Corporate Plan, taking us to 2022, will be dynamic and evolve. It will be updated regularly as new information becomes available, including for example the Well-being Plans produced by Public Services Boards (PSBs) in 2018; our own Area Statements by 2020; SoNaRR II in December 2020; and as we review and update our Well-being Objectives.

Several key pieces of work will be undertaken in this corporate planning period to set us on the right road towards achieving our Well-being Objectives.

- Developing a detailed, shared long-term vision for the natural environment to 2050 with our staff and stakeholders during 2018/19, and how we measure progress towards it. Our Well-being Objectives are of necessity long term and cannot be achieved in the timespan of this Corporate Plan.
- Developing Area Statements with our staff and stakeholders, covering six regional areas of Wales and one for the marine environment. These are local plans which set out the challenges and opportunities for natural resources to benefit people in local areas. They will form the basis of all of our work, are fundamental to informing public service delivery and will provide opportunities for everyone to take action. They will be linked to the [National Development Framework](#).
- Embedding our purpose – the sustainable management of natural resources – across all of our work, and ensuring the Environment (Wales) 2016 Act's Biodiversity and Resilience of Ecosystems Duty is also embedded, helping other public bodies to do the same.
- Supporting the implementation of the Welsh Government's NRP through Area Statements to help turn the national priorities into reality.
- Producing SoNaRR II by 2020, building on the baseline provided by the SoNaRR published in 2016.
- Collaborating, as one of the four statutory members, in all PSBs, to ensure that improving ecosystem resilience and the benefits of managing natural resources sustainably are recognised and optimised in PSBs' Well-being Plans, joining up and integrating the work of all PSB members.
- Re-designing the organisation of NRW so that it can operate at its best in the future, and listening to and supporting NRW staff through these changes.

How our Corporate Plan fits into our long, medium and short-term planning

Once developed, the shared vision for the natural environment to 2050 will be our long-term plan, with the Corporate Plan serving as our own medium-term plan which will be delivered through successive short-term annual Business Plans. We will monitor progress through a set of long-term indicators looking at trends in Wales as a whole, together with medium-term performance measures and short-term annual targets to monitor our own contribution to the long-term vision.

	Long term	Medium term	Short term
Plan	Shared Vision to 2050	Corporate Plan	Business Plan
Duration	20–25 years	3 – 5 years	1 year
Monitoring	Indicators showing changes in Wales due to activity by all organisations and individuals in Wales as a whole	Medium-term 3 – 5 year performance measures for NRW – our Corporate Plan Dashboard	Annual targets for NRW – our Business Plan Dashboard

These are our highest level plans – sitting below them will be operational plans – for example our long- term natural resource plans, medium-term service plans and shorter term work and project plans.

This is work in progress. Some of the long-term indicators we intend to use are suggested under each Well-being Objective. We are also developing our medium-term performance measures and our annual targets. These will be published in April 2018 alongside our 2018/19 Business Plan.

While monitoring for the long-term shared vision will be based on indicators that look at trends and activity from organisations and individuals across Wales, monitoring for the Corporate Plan and the annual Business Plan will be based on performance measures and targets which assess NRW’s own activity to monitor our contribution to the bigger picture. Together this forms our Performance framework.

Part 2

Here we look at each of our Well-being Objectives (WBOs) in turn. Achieving them will require integrated and collaborative working across the public, private and voluntary sectors as well as with individuals.

For each WBO, we will explain:

- Where we are now - the current situation in Wales
- Where we want to be long-term – both for Wales and in NRW. This is looking 20-25 years into the future and beyond the timespan of this Corporate Plan
- What NRW will do up to 2022 to help make this happen - examples of actions we will take over the timespan of this Corporate Plan to make progress towards achieving the WBOs.

We have also included some of the long-term indicators we intend to use to monitor what has changed at an all-Wales level. They are based on data sources including the Welsh Government's National Indicators and the National Survey – both of which we are using as our starting point. These will evolve as we develop our work.

Our set of medium-term performance measures will be available in April 2018, published alongside our Business Plan and annual targets.

1

Champion the Welsh environment and the sustainable management of Wales' natural resources



“People always say; why do you enjoy that sort of job? It’s about having that long-term data that I can look at and point and say we did that...”

Phil Newman
Senior Marine
Conservation Officer

WBO1: Champion the Welsh environment and the sustainable management of Wales' natural resources (SMNR)

Where are we now?

SoNaRR tells us that the current approach to managing natural resources in Wales is not sustainable in the long-term – our key natural resources are being depleted faster than they can be replenished. Biodiversity is declining and no ecosystems in Wales can be said to have all the attributes of resilience. In recent years, water quality has improved – but there is a long way to go before all freshwater bodies in Wales have good ecological status. And although air quality has improved, greenhouse gas emissions have fallen and renewable energy generation has increased, air pollution continues to be a significant health issue¹.

Wales' ecological footprint has been calculated at five times the actual area of the country. This means that five times the land area of Wales is needed to provide the raw materials, energy and food to supply Wales currently and to absorb the pollution and waste created¹.

People do show concern about the natural environment: 67% people in Wales are concerned about climate change, with most attributing it to human activity¹, and 43% of people are concerned about future changes to biodiversity². Also, 3% of people have volunteered to help protect the environment¹. But there is more to do.

Managed sustainably, people and businesses would derive even more benefits from natural resources than they do already– food, jobs, recreation, raw materials, energy, clean air and water. This is so long as everyone in Wales grasps the opportunities and understands the need to do some things differently in future – to live and work more sustainably.

We in NRW will champion the natural environment and help people make the most of the benefits it offers, as well as valuing it for its own sake – now and for future generations.

Where do we want to be long term?

NRW will be recognised as the champion for the natural environment in Wales and as a global leader in its field. We will have a strong voice, independent opinions and our views will be respected in Wales and around the world. We will bring people together around shared priorities and channel funding where it can achieve the best results based on the best evidence available. We are and will be an evidence-based organisation, undertaking operations, giving advice and making decisions based on best available evidence. Our evidence will be shared with others, and they will share what they have, providing as complete a picture for Wales as possible.

We will lead by doing and practise what we preach, showing how the sustainable management of natural resources works on the land and water we manage. At the same time, we will try out new ways of doing things, learning from others as we go – locally, nationally and internationally – and encourage others to do the same.

We will encourage changes in behaviour and the ways everyone does things in Wales – and derive the benefits – through increasing understanding of the importance of the natural

environment in people's day-to-day lives. Full life-cycle costs for projects will be considered – for raw materials, running and recycling or disposal – including the environmental costs. We will hold to account those causing environmental damage, where encouragement has failed and enforcement is necessary. We will take the lead and continue to minimise our own environmental impact, as a carbon-positive organisation.

We want the sustainable management of natural resources to be fundamental to *all* decision making in the public, private and voluntary sectors. We would also like to see the avoidance of damage to the natural environment and maximising social, cultural, economic and environmental benefits of decisions becomes the norm.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Develop a detailed shared vision for the natural environment of Wales and what the sustainable management of natural resources will be like by 2050, including milestones along the way.
- Make sure everything we do exemplifies the sustainable management of Wales' natural resources and highlights the benefits and opportunities the natural environment provides.
- Embed SMNR and the SMNR principles into all our own work, across our organisation, and inspire others to do the same. Listen to, and understand, other sectors' requirements of the natural environment, encouraging them to match their needs to what is sustainable.
- Develop our evidence base and a new NRW evidence strategy to underpin SMNR, linked to SoNaRR and existing plans such as the [Nature Recovery Action Plan](#) strengthening evidence and identifying gaps.

Working with our partners

- Co-produce seven Area Statements, which will enable the NRP to be implemented locally demonstrating the benefits of SMNR. The first set will be published by 2020, and be under regular review. Activities will be targeted where there is most benefit to be gained for both people and the natural environment.
- Continue our active role in all PSBs across Wales helping to produce the first set of Well-being Plans by March 2018. We will ensure that the three key challenges and three national priorities for the management of our natural resources are incorporated, and provide local evidence via the Area Statements.
- Ensure everyone understands the importance and the difference the natural environment and its sustainable management can make to people's lives to influence decisions and behaviours.
- Learn from SMNR good practice across the world and apply to our work.
- Work with our local PSB partners to help deliver the Well-being Plans.
- Work with academic institutions to look at the impact of emerging technologies and approaches to both producing evidence and helping to change behaviours.
- Share our data and evidence with others and make best use of their information.
- Fill gaps in evidence needs identified in SoNaRR 2016.
- Deliver the evidence needs of the [Nature Recovery Action Plan](#) working with our partners.

- Contribute to the Welsh Government’s refresh of the UK Marine Science Strategy.
- Lead the ambition and delivery for Wales’ public sector to be carbon neutral by 2030 through our [Carbon Positive project](#).

Indicators for Wales: How will we know if anything has changed?

Indicator/Source

- Ecological footprint of Wales – Welsh Government National Indicator³
- People’s concern about climate change – Welsh Government National Indicator³
- People’s understanding and valuing of the benefit we receive from natural resources – National Survey of Wales⁴

2 Ensure all land and water in Wales is managed sustainably and in an integrated way



“ I am passionate about our trees and woodland. They form part of our beautiful landscape and heritage, and the work that we are doing is providing many benefits both now and for future generations with places to work, play and relax as well as providing valuable habitat for many species.

Rachel Chamberlain
Team Leader Forest Planning

WBO2: Ensure land and water in Wales is managed sustainably and in an integrated way

Where are we now?

Around 90% of the land area of Wales is used for either agriculture or forestry⁵, while the marine environment represents 41% of the territory of Wales⁶, extending out to 12 nautical miles¹.

Land and water (including the marine area) are not always currently managed in an integrated way, and although water and air quality has improved in some cases over recent years, there is still a long way to go before we are managing all Welsh land and water sustainably. For example:

- All but one of the designated Welsh bathing waters met the standards set by the Bathing Waters Directive in 2016¹. However, 63% of freshwater water bodies failed to achieve good or better overall status in 2015 as defined by the Water Framework Directive¹. Pollutants from abandoned metal mines impact on 700 kilometres (nearly 435 miles) of Welsh rivers: nine of the ten worst metal-mine polluted catchments in the UK are in Wales⁷.
- Air quality has generally improved since the 1970s. However, nitrogen dioxide and particulate matter pose a substantial public health danger particularly in urban areas and at major roadsides¹. Air pollution impacts negatively on over 74% of Welsh habitats⁸.
- Soil quality has shown some improvements in woodlands and some recovery in peatlands and remains fairly stable under other land uses. Soils in Wales store an estimated 410 million tonnes of carbon¹.
- The area of woodland in Wales is 306,000 hectares (about 756,000 acres) made up of 156,000 hectares (about 385,000 acres) of broadleaved trees and 150,000 hectares (about 371,000 acres) of conifers. Although new planting increased between 2009 and 2014, the rate fell in the year to March 2016⁹.

Where do we want to be long term?

Land and water in Wales will be managed in a fully integrated way to reap multiple benefits. This will be regarded as the norm with differing uses – for farming, forestry, fisheries and the urban environment – considered holistically.

Water catchments will be considered in their entirety, including surface and groundwater, and from source to sea. Water quality and quantity (floods and drought), and air quality, will have been improved, benefiting both people and ecosystems, and we will make the best use of our water resources as set out in Welsh Government's Water Strategy for Wales¹⁰. Soils will have been safeguarded so that they can store carbon, control drainage, recycle 'waste' materials – and continue to be productive. Ecosystems will be more resilient – while land owners and businesses adopt a joined-up approach to sustainability and are supported to do so.

There will be more accessible greenspace and increased green infrastructure in and around our urban areas. Woodland cover will have increased substantially with more woodland planting and more woodland brought into management. Characteristic species

and habitats will be valued and recovering. The national priorities identified in the NRP are fundamental, and examples of nature-based solutions, informed by SoNaRR, will have been turned into practical action on the ground and will have been tackled at the most appropriate scale.

NRW will be seen as an advocate for the economic, social and cultural benefits that integrated land and water management can provide, as well as the environmental benefits. We will put this approach into practice on the land and water we manage ourselves.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Demonstrate SMNR in practice on the 7% of Wales' land and water we manage ourselves including NNRs, the Welsh Government Woodland Estate (WGWE) and our flood defences – monitoring and reporting the effectiveness of our approaches.
- Try out new approaches to land and water management making use of our new experimental powers and monitoring the results.
- Complete the review of the WGWE and begin to implement the findings.
- Restock about 1,800 hectares (about 4,450 acres) of WGWE each year with both conifers and mixed broadleaved species.
- Deliver a compensatory planting programme to replace woodland loss. Increasing woodland cover and bringing more woodland into management is a priority both within SoNaRR and the NRP.
- Develop a climate-change risk-management strategy for NRW-managed land with an associated evidence base.
- Make sure our regulation services – permitting, compliance and enforcement – support an SMNR approach.

Working with our partners

- Work in partnership with business, industry and land owners – particularly within the agriculture and forestry sectors to encourage an SMNR approach on the land and water we don't manage ourselves – to ensure ecosystem resilience is improved and the benefits to the people of Wales are optimised.
- With the Welsh Government, influence the design and subsequent use of the post-Brexit rural development plan, its environmental scheme and its monitoring and modelling.
- Work with local authorities and other partners to develop green infrastructure, including woodland planting, particularly in urban areas.
- Support the Welsh Government in the development of the Marine Plan and Marine Transition Programme.
- Support the Welsh Government in developing its National Development Framework.
- Bring water bodies into good ecological status by 2027 as per the EU Water Framework Directive.
- Tackle pollution from abandoned metal mines to help restore 700 kilometres (435 miles) of affected rivers to good ecological status.
- Develop a reformed and sustainable abstraction licensing system and work with partners to ensure surface and groundwater catchments can cope with high and low flows in periods of flood and drought.

- Help water companies develop their long-term investment plans.
- Support AONB partnerships and National Park Authorities which extend over 25% of the land area of Wales.

Indicators for Wales: How will we know if anything has changed?

Indicator/Source
<ul style="list-style-type: none">• Water quality in Wales National Indicator³• Forest coverage (sustainable management in Wales) NRW/Welsh Government data⁹• Individual action taken by people to protect the environment - National Survey⁴

3 Improve the resilience and quality of our ecosystems



“ Having the opportunity to look after habitats and work with landowners to try to improve their condition so that they are of the highest possible standard is incredible

Rhodri Dafydd
Senior Reserves Manage

WBO3: Improve the resilience and quality of our ecosystems

Where are we now?

SoNaRR has identified that currently no ecosystem in Wales has good resilience and many will not be adaptable enough to deal with climate change and other pressures.

Overall, biodiversity in Wales is declining. The extent of some habitats has declined significantly, and connectivity between habitats has also reduced¹¹. The condition of our ecosystems is mixed depending on the particular habitat: 55% of species and 75% of habitat features on Natura 2000 sites have been found to be in an unfavourable condition¹¹.

Issues that impact on protected wildlife sites include inappropriate grazing and livestock management, inappropriate woodland management, changes in water levels, habitat fragmentation and industrial or other development. Poor air quality is also a factor – over 74% of Welsh habitats are receiving damaging inputs from air pollution⁸.

Where do we want to be long term?

Wales' ecosystems will be more resilient, providing more benefits for more people. They will be better able to deal with disturbances – either by resisting them, recovering from them or adapting to them. Net biodiversity loss will have been reversed. Ecosystems will have greater diversity and connectivity, with protected sites buffered and managed as a coherent network as part of the wider natural environment in Wales.

Payment for Ecosystem Services (PES) will have been established as part of the way Wales does business, and the benefits that ecosystems provide will be widely understood. Nature-based solutions, maximising the links between ecosystem resilience and well-being, will be understood, valued and implemented.

NRW will have played a key role in delivering the Nature Recovery Action Plan, working with other public bodies and the private and voluntary sectors. Our own land and water management will exemplify ecosystem resilience and connectivity.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Ensure we consider biodiversity and ecosystem resilience in all our functions, activities and decision making.
- Review protected sites to ensure we have the right network for ecosystem resilience in place, as a way of protecting the best areas of biodiversity and a key tool for promoting SMNR.
- Restore the protected sites we manage towards favourable condition, and take action for priority species and habitats on the land and water we manage.
- Manage up to 2,900 hectares (about 7,200 acres) of ancient woodland sites by removal of threats, and manage at least 2,000 hectares (about 4,500 acres) PAWS (Plantations on Ancient Woodland Sites) towards restoration on land we manage.
- Manage woodlands towards open habitat in areas where past planting has been inappropriate, for example on deep peat.

- Prevent, detect and control invasive non-native species (INNS), pests and diseases on the land and water we manage and on other land in some instances, for example for giant hogweed (*Heracleum mantegazzianum*) and *Phytophthora ramorum*, where species have widespread negative impacts on the economy, environment and people's health.

Working with our partners

- Work with PSBs and other public sector bodies using Area Statements as a basis, to help them deliver their biodiversity duties, inspiring others and putting people at the heart of what nature can do for them.
- Work with the Wales Biodiversity Partnership and other partners to deliver the Nature Recovery Action Plan.
- Collaborate with land owners and managers to create a strategic integrated approach to managing land and water, focusing on managing protected sites towards favourable condition and valuing them as part of a larger network and essential component of the natural environment.
- Work with key partners to improve river habitats, collecting evidence and seeking funding to compile, prioritise and implement River Restoration Plans (RRPs), working towards providing the best river habitats for fish and establishing salmon as an iconic species indicative of habitat quality across Wales.
- Work with the Welsh Government to develop proposals for PES.
- Improve the resilience of marine ecosystems as part of the Marine Protected Area (MPA) network and activities under the [MPA Condition Improvement Project](#) and the [Assessing Welsh Fisheries project](#). Support the [Welsh Government's Marine Transition Programme](#)
- Ensure we have the evidence base we need, working with others such as the voluntary sector and the Joint Nature Conservation Committee (JNCC) to measure changes.

Indicators for Wales: How will we know if anything has changed?

Indicator/Source

- Healthy ecosystems – National Indicator³
- Biological diversity in Wales – National Indicator³
- People's individual perceptions about biodiversity – National Survey⁴

4

Reduce the risk to people and communities from environmental hazards such as flooding and pollution



“ We were working on a site in Llanelli and two ladies came down who were living on the street. They were so grateful we were there, they were overjoyed which made me happy that we’re doing a good job.

Allyn Hawkes
Operations Supervisor

WBO4: Reduce the risk to people and communities from environmental hazards such as flooding and pollution

Where are we now?

Pollution and flooding have wide-ranging damaging effects in Wales, with poor air quality identified as one of the greatest immediate environmental threats to people and the natural environment. It has been linked to 40,000 premature deaths a year across the UK, costing more than £20 billion annually¹².

Agricultural pollution incidents continue to be an issue with significant impacts on water courses. Water pollution in Wales caused by abandoned metal mines is the worst in the UK.⁷

Climate change is likely to result in more frequent and extreme weather events, with people located on flood plains or near to coasts increasingly at risk. Drought is also an issue with water availability likely to be reduced in some areas. In urban areas in particular, impermeable surfaces and development on flood plains exacerbate localised flooding.

Although recycling rates are increasing¹, hazardous waste and fly tipping continue to be a serious issue. We need to move towards a circular economy – reducing resource use in the first place and using natural resources many times before waste is finally used to produce energy where possible.

An ageing population in Wales suggests that there will also be an increase in the number of vulnerable people who will need help should an environmental incident occur.

Where do we want to be long term?

Environmental hazards will be considered as part of an integrated approach to land and water management. Nature-based solutions (such as tree planting or wetland and flood plain restoration) will be considered as a first step, although more 'hard engineered' approaches, such as culverts and concrete barriers, will still be needed in some cases. Area Statements will identify the best opportunities at a local level.

Flooding will be dealt with at a water catchment scale: the whole river and coastline will be taken into account and flood risk defences will have investment plans for the long term. Sustainable drainage systems provided by additional greenspace in urban areas will help manage flooding, temperature rises and particulate pollution. Diffuse pollution, including that from mines or agriculture for example, will have been minimised, with simple solutions to prevent leakage into watercourses. Contaminated land will have been remediated and restored where possible. All waste, particularly hazardous and illegal waste, will be significantly reduced, and fly tipping no longer takes place. Everything that can be recycled is recycled as we work towards a circular economy.

People will understand that prevention is better than cure, so inappropriate development on flood plains or where the risk of an environmental incident is high no longer takes place. Everyone will understand it is better not to pollute in the first place.

Communities and businesses will understand the risk of flooding or an environmental incident occurring in their local area. They will appreciate the effects on ecosystem resilience and how this affects their lives and livelihoods. They will recognise what they can do themselves and take responsibility to prevent or reduce the risk of an incident occurring and the impact it might have. If something does happen, they will be able to respond to minimise the impact and ensure that the most vulnerable are cared for.

NRW will work in partnership to help achieve this – providing guidance and advice, monitoring and evidence, modelling and forecasting the likelihood of events and providing an effective response to incidents that do occur. We will be trusted to recommend the best approach to help reduce the risks both to people and to habitats and biodiversity. As a firm but fair regulator, we will investigate incidents and use our full range of powers to tackle environmental crime when it becomes necessary.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Use our Area Statements to assess the risk of environmental hazards, and develop nature-based solutions as a first option to reduce their frequency/severity. Ensure this is built into our own natural resource plans and into future Well-being Plans prepared by PSBs.
- Make sure the risk of an environmental incident on land and water we manage ourselves is minimised.
- Reduce pollution risks by effective use of our regulatory powers.
- Maintain our existing flood assets and build flood defences to reduce the risk to a further 2,500 properties over the next five years including schemes to be completed at St Asaph in 2017/18 and at Crindau in 2018/19.
- Respond to incidents that do occur as a Category 1 responder.
- Play our part in the Shared Regulatory Agencies Research Programme and joint DEFRA/Environment Agency Flood and Coastal Erosion Risk Management Research and Development Programme.

Working with our partners

- Ensure Area Statements include nature-based solutions that reduce the risk of environmental incidents. These are then integrated into Well-being Plans by PSBs and provide multiple benefits where possible such as habitat creation and opportunities for recreation.
- Work with partners, communities, agricultural and industrial sectors on preventative measures to reduce the likelihood of incidents occurring in the first place.
- Collaborate with local bodies to prepare for and develop responses to environmental incidents should they occur.
- Work with others to improve the well-being of coastal communities, especially around areas very close to the coast and where managed retreat is the long-term plan.
- Collaborate with organisations such as Public Health Wales, the Wales Land Management Forum, agricultural inspectors, Dŵr Cymru Welsh Water and with local authorities and other regulators to research and trial innovative approaches to local air quality, diffuse and/or agricultural pollution, metal mine remediation and dealing

with slurry, changing behaviours and minimising health risks and inequalities by reducing exposure to pollutants.

- Support initiatives such as Flood Awareness Wales and Fly-tipping Action Wales.

How will we know if anything has changed?

Indicator/Source

- Properties at risk of flooding – National Indicator³
- People's individual perceptions of flood risk – NRW data
- Individual perceptions regarding local environment quality – National Survey⁴

5

Help people live healthier and more fulfilled lives



“The thing that I enjoy is helping the communities’ ideas come to fruition, and to see people appreciate the environment

Geminie Drinkwater
Project Officer
Llynfi Valley Woodland

WBO5: Help people live healthier and more fulfilled lives

Where are we now?

There are significant health issues in Wales. Living in and making use of a good-quality natural environment could help address these as part of a healthy lifestyle and improved physical and mental health. For example, 25% of people will suffer from mental health issues at some point in their lives¹³, while almost 60% of people in Wales aged 16 or over are overweight or obese and the rate is increasing¹.

Health inequalities between different parts of Wales are significant. In the case of childhood obesity for example, 19.2% of 4–5-year-olds in the Vale of Glamorgan are considered overweight or obese, while for Merthyr Tydfil that figure is 33.8%¹⁴. Child obesity is significantly higher in more deprived areas^{1, 14}. Income poverty affects 23% of all people and 30% of people in Wales¹. Healthy life expectancy also varies considerably between different local authorities¹.

While more than 80% of adults in Wales take part in some type of outdoor recreation at least once a year, only about a quarter do so regularly². Women are likely to be less active than men¹. And though half of all children and young people participate in sport three times a week, participation rates reduce dramatically with age¹. Around 3% of people volunteer to protect the environment¹.

Although many people already enjoy the natural world, there are considerable challenges to reconnect some people to the natural environment, learning in and about the outdoors: everyone deserves to live in good-quality and attractive areas with good air and water quality, and should be encouraged in the use of the outdoors to improve both mental and physical well-being.

Where do we want to be long term?

People will enjoy and feel connected to nature, recognising the inherent value of the natural environment and its role in health and well-being, Welsh culture and heritage. Learning in and about the natural environment and the benefits it provides will be part of everyone's life – and begin in childhood. Making better use of local greenspace in both urban and rural areas will be the norm together with a recognition that physical activity in the outdoors contributes to the prevention of many physical and mental illnesses. Health inequalities between different areas of Wales and different communities will have been significantly reduced, with healthy life expectancy increased.

People will take pride in their local area and volunteer to help look after the natural environment, learning new things and giving back to society, with their efforts recognised and valued.

People will feel reassured that any potential environmental risks, such as living in an area prone to flood or near an industrial site, are being well managed with businesses helping to improve local environments as part of their corporate social responsibility.

NRW will encourage access to the land and water it manages and provide a wide range of opportunities for recreation and volunteering. Access is viewed in its broadest sense –

including information and support as well as physical access. We will have joint initiatives with Public Health Wales, Sport Wales and other experts where using the natural environment to improve health and well-being, and active travel such as cycling and walking is encouraged. Social science will help us understand people's behaviours and how best to nudge and drive change.

The natural environment will be seen as integral to local well-being plans, with Welsh landscapes and seascapes inspiring lifelong learning and participation in sports and the arts.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Develop and manage access and infrastructure – walking, running, mountain bike and horse riding trails and access points for example on NRW-managed land and water, encouraging people to use it for recreation, focusing on places where this can provide the most benefits.
- Use NRW-managed land and water to support community projects and social enterprises including community energy projects and community woodlands.
- Deliver Cyfle, NRW's new scheme for the recruitment, support and management of placements including apprenticeships, research and work placements, student work experience placements and volunteering, giving people the opportunity to gain valuable skills and share their experience and expertise.
- Continue to deliver Plant! where a tree is planted in Wales for every child born or adopted in Wales.
- Manage cultural heritage (Scheduled Monuments and listed buildings) on land we manage.
- Provide information about our recreation sites and opportunities to promote what we offer and to enable people to make informed decisions about places to visit, activities to undertake and how they can become involved.
- Involve people, particularly through PSBs, in the decisions we make where appropriate.

Working with our partners

- Help every child in Wales experience and value the natural environment. Work in partnership to influence the new curriculum in Wales to ensure outdoor learning is included within the statutory curriculum for all age groups.
- Work with Public Health Wales and Sport Wales to develop joint actions that support joint objectives using the natural environment to improve health and well-being.
- Ensure the role of the natural environment in improving both physical and mental health is embedded in each of the PSBs' Well-being Plans and opportunities highlighted in Area Statements.
- Support the Welsh Government in delivering its programmes including the Valleys Taskforce and helping unemployed people get back into work.
- Work with partners to deliver the benefits of the Wales Coast Path and Welsh National Trails for visitors and locals alike.

- Work with partners, communities and educators to promote the value of the local natural environment and the opportunities they can provide to improve health, develop skills and support Wales' cultural heritage.
- Increase woodland creation and management including public access and opportunities for community woodlands and green infrastructure, using data from our urban canopy study.

Indicators for Wales: How will we know if anything has changed?

Indicator/Source

- Proximity to accessible greenspace – NRW data
- Physical activity in the outdoors and its link to physical and mental health – Welsh Outdoor Recreation Survey²
- People's understanding and valuing of the benefits we receive from natural resources – National Survey⁴

6

Promote successful and responsible business, using natural resources without damaging them



“ I like to think I’m helping to leave a legacy for my daughter so she can continue to enjoy these things

Charlie Lewis
Project Support
Officer

WBO6: Promote successful and responsible business, using natural resources without damaging them

Where are we now?

Over 90% of the land area in Wales is used for agriculture and forestry⁵. We also have significant freshwater and marine fisheries where ensuring the sustainability of fish stocks is a significant issue: for example, there has been a marked reduction in the abundance of salmon in our rivers over recent years¹.

Local authority recycling rates have risen from 52% in 2012/13 to 60% in 2015/16, and they are now the highest in the UK. Wales is also ranked second in Europe and third in the world for recycling¹.

Electricity generated from renewables has more than tripled since 2007, reaching 20% of all electricity produced in Wales by 2015¹. Continuing to increase the proportion of renewable energy is a priority for the future with the [Welsh Government's aspirations](#) for 70% of electricity provided by renewables in Wales by 2030, with at least 1 giga watt of renewable energy capacity locally owned.

NRW supports industry and agriculture through its advice and regulation to reduce environmental impacts, control pollution and reduce the risk of incidents. While some businesses already operate sustainably, there are more opportunities for green growth, benefiting industry itself, the natural environment and the people of Wales.

Where do we want to be long term?

Wales will be seen as a great place to do business, with organisations understanding SMNR, adopting sustainable working practices and appreciating that they are operating as a part of resilient ecosystems. This will benefit not only the businesses themselves but also the people of Wales and the natural environment, which will be viewed as an essential asset. Businesses will be encouraged to become accredited and are recognised for their approach.

The spectrum of businesses in Wales ranges from traditional industry and forestry, fishing and farming to tourist operators and social enterprises. In future, development planning will ensure that new businesses are located where they have the minimal environmental impact.

Wales will be seen to have a competitive advantage as it embraces green growth. New sectors, new products, new research and innovation in existing industries will be encouraged. Wales will make best use of natural resources and emerging technologies, while at the same time understanding, avoiding and mitigating against impacts on the natural environment and looking for enhancement opportunities. Resources will be used efficiently, and renewable energy production will have increased significantly with a proportion of renewable energy capacity locally owned. Wales will be working towards a circular economy – where resource use is reduced and materials are re-used, recycled and finally used to produce energy where possible.

NRW will have strong links with industry, providing advice and working together before and during the planning process to develop good sustainable businesses and technology. We will make full use of our regulatory powers – permitting and monitoring to check compliance and enforcement – to protect the natural environment and to ensure that legitimate businesses are not undermined.

We will support the development of alternative markets as well as PES and use our buying power to influence our suppliers and the wider public sector to encourage working towards a circular economy.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Develop our commercial work in accordance with our Enterprise Plan, ensuring that our activities contribute positively to SMNR as well as income generation.
- Market our timber through fair and open competition and ensure the forests we manage retain independent forest certification.
- Support the development of renewable energy on the land that we manage and support renewable energy projects on adjoining land. Help deliver Welsh Government carbon reduction commitments and facilitate greater community benefit and ownership of renewable energy projects.
- Support the development of recreation-based tourism on NRW-managed land including the development of holiday cabins on at least three sites.
- Help provide good-quality jobs throughout Wales as a direct employer and support apprenticeships, work placements and Welsh Government employment programmes to help people find work across Wales.
- Ensure that advisory and regulatory work is efficient and effective, allowing good decisions to be made by those receiving NRW advice.
- Respond to 95% of planning applications within statutory or agreed deadlines and monitor the quality of our advice and what effect our response has had.
- Use our experimental powers to work with emerging technologies to help business operate sustainably.

Working with our partners

- Promote the compelling reasons for business to adopt an SMNR approach to their operations, helping them understand the benefits of this approach to both industry and to the people of Wales and the natural environment. Support businesses on a sector-by-sector basis, providing a vision for the future.
- Work with the private sector, neighbours, voluntary bodies and communities to support appropriate use of NRW land to deliver economic, social and environmental benefits.
- Encourage businesses to adopt appropriate accreditation schemes, such as B Corp, demonstrating that they adhere to strict environmental, social and cultural, as well as economic, standards.
- Support the Welsh Government and others to develop PES and their approach to new tax powers.
- Support the Welsh Government in the preparation of the National Development Framework.

- Take the lead with other UK environmental agencies to ensure that regulatory changes elsewhere in the UK have a beneficial impact for Wales.
- Work with academia and in particular business schools to develop innovative approaches to embedding SMNR as a normal part of business.
- Put steps in place to work towards a circular economy and zero waste in Wales.
- Support the management of high-quality landscapes and sustainable tourism developments with partners to enhance the visitor economy across Wales.

Indicators for Wales: How will we know if anything has changed?

Indicator/Source

- Emission of Greenhouse Gases – National Indicator³
- Develop more indicators in collaboration with partners and business in Wales

7

Develop NRW into an excellent organisation, delivering first-class customer service



“We respect the identity of our customers and the partners we work with, and aim to provide those services in their language of choice, Welsh or English as they so wish.

Lyn Williams
Welsh Language
Officer

WBO7: Develop NRW into an excellent organisation, delivering first-class customer service

Where are we now?

Since 2013, we have established our standalone capability, developing our own systems appropriate for Wales.

We are on track to make £150 million savings over 10 years, as set out in the business case to establish NRW. Although we have managed to accommodate reductions in funding, this will become much more challenging in future years.

We are poised to reorganise our structure to deliver our local, area-based approach, following on from work over several years leading up to this point.

Where do we want to be long term?

We will be leading the way to a better future for Wales by managing the environment and natural resources of Wales sustainably. And we will know we are working in the best way we can because our staff and customers will have told us so. We strive for excellence and are continuously improving how we work – this is an integral part of our culture and our behaviours.

We care for our staff: NRW will be considered a great place to work where staff are, and recognise that they are, valued for their professionalism and expertise, listened to and their diversity celebrated. Well-being and health and safety are paramount. We have strong leadership and everyone in NRW has the skills to do their job and is empowered to do so. Staff continue to learn and innovate throughout their careers, and we provide good opportunities for career and professional development.

We care for our customers: customers will be at the heart of the way we work. The public, private and voluntary sectors, local communities and individuals will be keen to work with us and see us as a valuable partner because we are customer focused, we listen, respond and are keen to work collaboratively. We will be widely trusted and respected and seen as a firm but fair regulator using enforcement to drive positive change. We make clear, evidence-based decisions, and we are open and transparent in our work, communicating this effectively.

We care for the natural environment: that is why we are here. It is usually why people work for NRW.

Making the most of our resources, as an organisation we will be realistic in our ambition and have built in flexibility to meet changing needs. We will have the skills, innovation, commercial know-how and good governance to adapt to change, generating more income where we can and providing good value for money for the people of Wales.

What will NRW do up to 2022 to help make this happen?

Lead by example

- Inspire, motivate and empower our staff to live our values, and be our ambassadors.
- Run regular staff surveys and ensure we listen to staff, engage with them to understand their views and work to improve NRW as a place to work to meet their expectations.
- Improve our leadership, ensuring all our staff understand the direction we are moving in, developing a supportive leadership culture focused on well-being.
- Deliver our equality, diversity and inclusion commitments for staff and those who use our services, engaging with other organisations to learn and share best practice.
- Plan for continued financial pressures, deliver value for money and increase our income from enterprise activities.
- Implement our organisation design project and ways of working by 2019, to ensure we deliver our purpose more effectively at both a local and national level.
- Achieve accreditation for excellent customer service through the delivery of our customer focus programme, measured by independent customer satisfaction surveys.
- Retain independent forest certification demonstrating our timber is sustainably managed for customers and other stakeholders to the UKWAS (UK Woodland Assurance Standard).
- Reduce our own environmental impact and carbon footprint through our carbon positive project, showing leadership in decarbonisation in the public sector.
- Pilot an approach to procurement for the public services in Wales which focuses on supply chains and optimises our contribution to the delivery of all our own WBOs. Roll this out across NRW and share across the public sector.
- Enable our customers to make their preferred choice for doing business with us online – because it's the simplest, cheapest and quickest way to do so.

Working with our partners

- Run external and internal customer surveys to provide the baseline from which to assess our performance improvements over coming years.
- Continue to be an integral part of all PSBs working in collaboration to implement the first set of Well-being Plans and emerging Area Statements.
- Support wider sharing and efficient use of our assets such as offices and fleet, to help move towards an efficient and integrated public service for Wales.
- Pilot new approaches to our grant-giving work, learning and improving along the way.
- Roll out our pilot approach to procurement across the public sector.
- Move towards a more enabling organisation, where we help partners to work with us to help deliver joint outcomes.

How will we know if anything has changed?

Indicator/Source

- Quality of service we provide – NRW Customer Focus programme
- Staff perceptions of NRW – NRW People and Teams strategy and ongoing surveys

Part 3

This final section explains our workforce planning and financial position, followed by more detail on how we will use indicators, measures and targets to monitor progress.

Our resources – people and money

To deliver this Corporate Plan we will need a workforce that is up for the challenge ahead – and we are confident that we already have one. People in NRW are passionate about their work: we need to build on this. We need to listen to and support our staff to make NRW a better organisation where we all want to work.

Since 2013 NRW has undergone significant change, but there is still more to do to transform the organisation to meet our new ways of working and make it a better place to work. Even then, change will continue as we develop and respond to future demands, particularly financial challenges and the changing circumstances around us.

Over the next two to three years, we will be moving NRW to a more integrated, locally based organisation, only using a national approach where it makes more sense to do so – for example with our commercial forestry. This will impact our people who have already been through considerable change. We will need to support them through these changes to get the best outcomes for everyone. Partnership with our trades union colleagues will be vital to this process.

Through our People and Teams Strategy, we will develop our leadership. We need to ensure that all of our people understand our purpose and how their role specifically contributes to it. We also need to develop our culture and behaviours. We need to make NRW a great place to work where people work in a safe and positive environment, where they can develop their careers and where they are listened to. We need to listen, to understand and to address underlying issues. We all want NRW to be a place where everyone can enjoy their work and be proud of their contribution towards achieving our Well-being Objectives.

Our Finance Strategy will set out how we will meet the SMNR principles and the Well-being of Future Generations (Wales) Act 2015's five ways of working. The Strategy will highlight the financial opportunities and challenges that we face in achieving the ambitions set out in our Corporate Plan. We will maximise the commercial income opportunities set out in our Enterprise Plan, demonstrate that we are efficiently regulating industries in Wales and optimise the use of the Grant in Aid we receive from the Welsh Government.

We are aware that there will be significant financial challenges in this corporate plan period: our Grant in Aid has already been reduced for the next two years. We will need to make some hard choices and some difficult decisions: how much of this Corporate Plan we can achieve will be dependent on the resources we have. Notwithstanding this, we will make the most efficient use of the resources we have. Careful prioritising of our funding and increasing our income will be fundamental to the delivery of our seven Well-being Objectives.

Now more than ever, collaborating closely with other organisations including academia and professional bodies will be fundamental to our success, especially in the delivery of PSBs'

Well-being Plans, and in the development of innovative approaches to what we do and how we work.

Monitoring performance: indicators, measures and targets

Development of our long-term indicators is ongoing. As a starting point, we are making use of the National Indicators for the Well-being of Future Generations (Wales) Act 2015 and the State of Natural Resources Report, along with other surveys and sources. These long-term measures will help us understand change in Welsh natural resources along with the well-being benefits they provide, and the impact of individual behaviour, public services, policies and programmes. The changes we track use indicators at a Welsh level and involve the activities of a wide range of organisations and individuals.

The indicators we have selected for each of our Well-being Objectives aim to:

- Demonstrate what elements of well-being natural resources support
- Align with other indicators
- Add value to our management processes by enabling direction setting and holding us to account

These indicators:

- Are limited in number to be a manageable coherent set
- Are capable of being summed up so as to be easily understood
- Are able to be produced in a timely manner
- Use existing data and analysis, while developing new areas as required

We will continually review the appropriateness of our indicators, ensuring they align to the development of the second SoNaRR due in 2020, and that they assess the desired outcomes.

We expect to develop further indicators over the next few years in the following areas:

- Integrated management of land and water
- Assessing the transition to a green/resource-efficient low-carbon economy
- The link between health and access to the environment, including proximity to accessible greenspace (partnering with Public Health Wales)
- Progress towards being a zero-waste nation
- Standards which indicate the adoption of sustainable business practice

By April 2018 we will have developed our medium-term measures to show how NRW performs over the lifespan of the Corporate Plan. These will be published alongside our 2018/19 Business Plan, which will also contain our short-term annual targets. We will be considering and revising our indicators, measures and targets as part of our ongoing annual planning cycle, ensuring we are ambitious and rigorous in measuring our own performance and how we contribute to well-being in Wales, now and for future generations.

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Glossary

AONB – Areas of Outstanding Natural Beauty are of equal status in terms of landscape quality to National Parks but are only designated (under the Countryside and Rights of Way Act 2000) to conserve and enhance their outstanding natural beauty. Unlike with National Parks, the responsible bodies do not have their own planning powers. They also differ from National Parks in their more limited opportunities for extensive outdoor recreation. There are five AONBs in Wales: Anglesey, Llŷn, Clwydian Range and Dee Valley, Gower and the Wye Valley AONB, which also spans the border into England.

Area Statements – Area Statements are an evidence base to help NRW deliver the sustainable management of natural resources at a local level right across Wales. They will bring together data, information and ways of engaging others to help us better understand the state and trends of natural resources in an area, the pressures on them and the benefits we receive. They are a requirement of the Environment (Wales) Act 2016 and will be used when developing Well-being Plans with Public Services Boards.

Biodiversity – the whole variety of living organisms (species), including genetic variation within species.

Carbon neutral – any process or activity resulting in no net release of carbon dioxide into the atmosphere.

Carbon positive – carbon positive moves beyond carbon neutral by making additional ‘positive’ contributions. Net carbon status is the balance between emissions and sequestration. If less carbon is emitted than is captured (sequestration), then that process or activity is carbon positive.

Category 1 Responder – a person or organisation (listed in Part 1 of Schedule 1 to the Civil Contingencies Act) which is likely to be at the core of the response to most emergencies. This includes NRW alongside the emergency services, local authorities, NHS bodies and others.

Circular economy – an alternative to a traditional linear economy (make, use, dispose), in which we keep resources in use for as long as possible, extract the maximum value from them while in use, then recover and regenerate products and materials at the end of each service life.

Climate change – this is a change in the statistical distribution of weather patterns when that change lasts for an extended period of time (i.e. decades to millions of years). Certain human activities have been identified as primary causes of ongoing climate change, often referred to as global warming.

Community – a group of people holding something in common – a place, or a common interest.

Corporate Plan – strategic plan setting out the medium-term priorities for Natural Resources Wales over a three- to five-year period.

Cyfle – this is NRW’s new scheme for the recruitment, coordination, support and management of placements, including apprenticeships, higher education placements, work placements, student work experience placements, student research placements and NRW volunteer placements.

Decarbonisation – the reduction or removal of carbon dioxide from energy sources. A mix of renewables – such as wind and solar power, nuclear power stations and coal- and gas-fired plants that capture carbon dioxide emissions – could provide sufficient electricity with very little output of greenhouse gases. This also applies to substituting materials for those from more sustainable sources, reducing the carbon footprint and impact on the environment.

Designated Sites – sites which have specific protection under the law because of their special value for biodiversity or geodiversity (e.g. SSSIs (Sites of Special Scientific Interest), SACs (Special Areas of Conservation), SPAs (Special Protection Areas)).

Ecological footprint – this is a measurement of human demand on nature, i.e. the quantity of nature it takes to support people or an economy. This demand is tracked through an ecological accounting system, contrasting the biologically productive area people use for their consumption to the biologically productive area available within a region or the world (biocapacity). It is a measure of human impact on the earth’s ecosystems and reveals the dependence of the human economy on natural capital or natural materials, organisms and processes.

Ecosystem resilience – the capacity of an ecosystem to respond to a disturbance by resisting damage and recovering quickly.

Ecosystems – the interaction of communities of plants and animals (including humans) with each other and the non-living environment. Balanced ecosystems are stable when considered over the long term (hundreds of years in the case of some habitats such as woodlands).

Emerging technologies – any technology that is perceived as capable of changing the status quo. These technologies are generally new but include older technologies that are still controversial and relatively undeveloped though have potential. In environmental terms these technologies are being explored as a more sustainable way of creating energy and fuels, or look at alternative materials for construction example.

Enterprise Plan – this plan covers the commercial activities of NRW. It develops milestones for income generation that exemplify SMNR, while working with partners and communities.

Environment (Wales) Act 2016 – legislation introduced by the Welsh Government which puts into place the necessary legislation to enable the planning and management of the natural resources of Wales in a more sustainable, proactive and joined-up way than was previously possible. It also sets out the purpose of NRW.

Flood plain – an area of land adjacent to a stream or river which stretches from the banks of its channel to the base of the enclosing valley walls and which experiences flooding during periods of high discharge.

Grant in Aid – this is funding coming from central or devolved government for specific work – here Welsh Government provides public funding for NRW’s work. NRW should operate with reasonable independence, however requirements and standards for how money should be spent apply.

Green growth – green growth is a term to describe a path of economic growth which uses natural resources in a sustainable manner. It is used globally to provide an alternative concept to standard economic growth.

Green infrastructure – a network that potentially can provide the components necessary for solving urban and climatic challenges by building with nature, by planting trees in urban areas for example. The main components of this approach include storm-water management, climate adaptation, reducing heat stress, improving biodiversity, food production, better air quality, sustainable energy production, clean water and healthy soils.

Habitats – the type of environment in which plant and animals live, habitat is dictated by what kinds of plants grow there, the climate and the geography.

Indicators – in the context of the Corporate Plan, indicators monitor long-term trends in Wales as a whole and show how particular factors, such as greenhouse gas emissions or childhood obesity, are changing over time. This indicator set is under development and will be linked to our long-term Vision document which will be developed in 2018/19. Sources of information for these indicators include the Welsh Government’s National Indicators and National Survey.

INNS – an invasive non-native species is any non-native animal or plant that has the ability to spread, causing damage to the environment, the economy, our health and the way we live. Examples include rhododendron, grey squirrels or *Chalara fraxinea* (ash dieback). A non-native species refers to a species, subspecies or lower classification introduced (i.e. by human action) outside its natural past or present distribution. There are many non-native species in the UK, but only a few of them are invasive.

JNCC – Joint Nature Conservation Committee. JNCC is the public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation.

Legacy bodies – the bodies which came together in April 2013 to create Natural Resources Wales (Countryside Council for Wales, Environment Agency Wales and Forestry Commission Wales). Legacy systems are the systems still provided by the ‘parent bodies’ of these organisations, such as the Environment Agency and Forestry Commission.

Marine Protected Areas - parts of the sea identified for the protection of marine habitats and species. They cover a wide diversity of marine wildlife, including rare and sensitive habitats and species. They include SSSIs that cover the sea or sea shore and sites of European and international importance such as Special Areas of Conservation and Special Protection Areas.

Marine Protected Area Network – this is a collection of individual Marine Protected Areas (MPAs) or reserves operating cooperatively and synergistically, at various spatial scales, and with a range of protection levels that are designed to meet objectives that a single reserve cannot achieve. Such a network can include several MPAs of different sizes, located in critical habitats, containing components of a particular habitat type or portions of different kinds of important habitats, and interconnected by the movement of animals and plants. An MPA Network is usually established to improve fish catch, to conserve biodiversity or for a combination of these two reasons.

Marine Transition Programme – this programme is supported by the Welsh Government's Wales Marine Advisory and Action Group (WMAAG) and focuses on marine planning (including marine evidence activities), the Marine Strategy Framework Directive, sustainable fisheries and MPAs including harbour porpoise and SPAs.

National Development Framework – the Welsh Government is developing the framework, which will set out a 20-year land-use framework for Wales and will replace the current Wales Spatial Plan. The National Development Framework supports national economic, transport, environmental, housing, energy and cultural strategies and ensures they can be delivered through the planning system.

National Indicators – required under the Well-being of Future Generations Act (Wales) 2015, the indicators are set by Welsh Ministers and are designed to reflect the whole of Wales and show how everyone contributes to the Well-being Goals.

National Survey – this a survey run by the Welsh Government, based on a representative group of 10,000 people. The survey covers a range of topics with a focus mainly on well-being and people's perception of public services.

Natura 2000 sites (N2K) – a network of protected sites of European importance protected under the EC Birds Directives (Special Protection Areas – SPAs) and Habitats Directive (Special Areas of Conservation – SACs). These are our most important sites for nature conservation.

Natural Resources Policy – this is the second statutory product of the Environment (Wales) Act 2016 and is published by the Welsh Government. Its focus is the sustainable management of Wales's natural resources and sets NRW's purpose. The three national priorities are delivering nature-based solutions, increasing renewable energy and resource efficiency and taking a place-based approach.

Nature-based solutions – actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively. They simultaneously provide human well-being and biodiversity benefits, such as tree planting in the uplands to help reduce flooding severity further downstream.

Nature Recovery Action Plan – this is linked to the Well-being of Future Generations Act (Wales) 2015 and Environment Act (Wales) 2016 and sets out how Wales will address the Convention on Biological Diversity's Strategic Plan for Biodiversity and the associated Aichi Biodiversity Targets in Wales. The Nature Recovery Action Plan will identify actions that can be delivered in the short term and set a course to deliver longer-term commitments beyond 2020. The actions in the Plan will be kept under regular review,

ensuring they continue to meet objectives and achieve the ambition of nature recovery in Wales. A set of indicators will also be developed to measure the progress of the Nature Recovery Action Plan against objectives. To accompany the plan, a Nature Recovery Framework will set out the roles and responsibilities of the key players for delivery of action for biodiversity in Wales, and how they are linked together.

NNRs – National Nature Reserves are protected sites covering some of the best natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats, communities and species represented within them. Marine sites are designated as Marine Nature Reserves: in Wales, Skomer is a Marine Nature Reserve.

Organisational Design – this project will redesign our organisational and ways of working helping NRW fulfil its purpose, embedding the sustainable management of natural resources in all we do and delivering our Roadmap (please see further explanation of ‘Roadmap’ below).

Particulate matter – this is the sum of all solid and liquid particles suspended in air, many of which are hazardous to health. It can include both organic and inorganic particles, such as dust, pollen, soot, smoke and liquid droplets. These particles vary greatly in size, composition, and origin. They are either directly emitted, for instance when fuel is burnt or when dust is carried by wind, or indirectly formed, when gaseous pollutants previously emitted to air turn into particulate matter.

PAWS – Plantations on Ancient Woodland Sites are sites that have a long history of woodland cover. They are ancient semi-natural woodlands on which the original, ‘natural’ woodland was cleared and replaced by a plantation of either native or exotic species.

Performance framework – the combination of long-term indicators monitoring trends for the natural environment in Wales and medium- (three to five years) and short-term (annual) performance measures and targets monitoring what NRW has achieved, how this contributes to the picture for the whole of Wales’s natural environment and the benefits it provides for people.

Performance measures and targets – medium-term measures and annual targets monitoring progress towards targets NRW has set itself over a three- to five-year period and on an annual basis, demonstrating whether these have been achieved or not. We have a set of short-term annual targets linked to our annual Business Plan. The medium-term three- to five-year performance measures are under development and will be published in April 2018.

PES (Payment for Ecosystem Services) – in these schemes, people managing natural resources, typically landowners, forest owners or farmers, are paid to deliver environmental benefits. In some cases, payments are made by those that benefit from the ecosystem services, for example water users. In other cases, the government pay on behalf of their citizens.

Phytophthora ramorum – a fungus-like pathogen of plants which kills larch trees (and some other plants) and is currently spreading rapidly through Wales.

Plant! – a Welsh Government commitment to plant a native Welsh broadleaf tree for every child born or adopted in Wales. The scheme is called Plant! as this is the Welsh word for children.

Prosperity for All – this is a national strategy that takes the commitments of ‘Taking Wales Forward’, Wales’s Programme for Government, and places them in a long-term context. It sets out how they will be delivered by bringing together the efforts of the whole Welsh public sector.

PSBs (Public Service Boards) – these are a statutory requirement of the Well-being of Future Generations Act (Wales) 2015. Their purpose is to improve the economic, social, environmental and cultural well-being in their areas by strengthening joint working across all public services in Wales. NRW is a statutory member of each PSB.

Remediation – this refers to the removal of pollution or contaminants from the environment such as soil, groundwater, sediment or surface water. It is undertaken as such pollution or contaminants can impact negatively on human health and the environment.

Renewable energy – this is energy that is collected from renewable resources, which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves and geothermal heat. Renewable energy often provides energy in four important areas: electricity generation, air and water heating/cooling, transportation and rural (off-grid) energy services.

Resilience – in ecology, resilience is the capacity of an ecosystem to respond to a perturbation or disturbance by resisting damage and recovering quickly.

Resource efficiency – this means using the earth’s limited resources in a sustainable manner while minimising impacts on the environment, potentially delivering greater value with less input.

Roadmap – defines the vision for NRW as an organisation and what we need to do to achieve it. It includes restructuring our organisation to ensure we achieve our vision and the sustainable management of natural resources.

SACs (Special Areas of Conservation) – areas that have been chosen to make a significant contribution to conserving habitats and species as set out in the EC Habitats Directive. Marine SACs are also being developed to protect marine habitats and species, including otter, shad, lamprey, grey seals, harbour porpoise and bottlenose dolphin.

Shared Regulatory Agencies Research Programme – this programme funds joint research between UK and Irish environment agencies.

SMNR (Sustainable Management of Natural Resources) – using natural resources in a way and at a rate that maintains and enhances the resilience of ecosystems and the benefits they provide. In doing so, it meets the needs of present generations of people without compromising the ability of future generations to meet their needs.

SoNaRR (State of Natural Resources Report 2016) – this report (compiled by NRW) sets out the state of Wales’ natural resources. It assesses the extent to which they are sustainably managed and recommends proactive approaches to building resilience. The report indicates where there are gaps in evidence and identifies opportunities for integrated solutions that provide multiple benefits.

SPAs (Special Protection Areas) – areas that have been classified specifically to conserve wild birds that are listed as rare and vulnerable in the EC Birds Directive. They also include the sites that migratory birds use as stop-off points on their journeys across the planet. Species include red kite, merlin, osprey and golden plover and Manx shearwater.

SSSIs (Sites of Special Scientific Interest) – are sites designated under UK law (the Wildlife and Countryside Act 1981 and subsequent amendments) for their biological, geological or physiographic importance. UK nature conservation agencies (including NRW) have a duty to notify any area of land which in their opinion is 'of special interest due to its flora, fauna, or geological or physiographical features'.

Sustainability – in a general sense, this is the capacity to maintain a certain process or state indefinitely. The concept of sustainability applies to all aspects of life on earth and is commonly defined within ecological, social and economic contexts.

Taking Wales Forward – the Programme for Government – this outlines Government commitments over the next five years to help drive improvement and make a difference to the lives of people in Wales.

UK Marine Science Strategy – an agreed, strategic 15-year plan for the UK vision of clean, healthy, safe, productive and biologically diverse oceans and seas. This strategy sets the general direction for future marine science across the UK for the period 2010 to 2025 by identifying high-level priority areas for marine science and tackling cross-cutting barriers, to help deliver the science.

UKWAS (UK Woodland Assurance Standard) – UKWAS is an independent certification standard for verifying sustainable woodland management in the UK. It is not a certification scheme but, uniquely, it is designed as a single national standard for common use by international forest certification schemes operating in the UK.

United Nations Global Goals – this is the UN’s 2030 agenda for sustainable development. The framework is called ‘Transforming Our World’ and includes 17 goals and 169 targets to wipe out poverty, fight inequality and tackle climate change over the next 15 years.

Uplands – an area of high or hilly land generally defined as land lying above the level where water flows or where flooding occurs. This is generally defined as land above sea level. In freshwater ecology, upland rivers and streams are the fast-flowing rivers and streams that drain elevated or mountainous country, often onto broad alluvial plains.

Urban Canopy Study – a survey commissioned by NRW which uses aerial photography from 2006 to 2009 to identify and map the canopy spread of trees in urban areas. It shows how many trees we have, where they are and where they are being lost over time. This will

help inform how to manage urban trees in a better way for the future and identify opportunities for woodland creation.

Wales Land Management Forum – this was established in May 2013 to act as the main communication route between the Board and Executive Team of NRW and elected office holders from the principal land management organisations in Wales. The forum provides a mechanism to share information, identify areas of common ground and develop a ‘no surprises’ approach to strategic issues. The Forum currently includes representatives from Confor, the farming unions and land management and owners organisations but will be refreshing its Terms of Reference and membership and is looking to expand its forest sector representation.

Water catchments – a catchment is an area where water is collected by the natural landscape. In a catchment, rainwater run-off will eventually flow to a creek, river, dam, lake, ocean or into a groundwater system. The region’s drinking water catchments deliver water to Hunter Water’s surface water and groundwater storages.

Water Framework Directive – the EU Water Framework Directive (WFD) came into force in December 2000 and became part of UK law in December 2003. It provides an opportunity to plan and deliver a better water environment, focusing on ecology and through river basin management planning.

Well-being Objectives (WBOs) – the seven objectives NRW developed as part of our Well-being Statement detailing how we will contribute to the Well-being of Future Generations Act. All public bodies in Wales are required to develop Well-being Objectives.

Well-being of Future Generations Act (Wales) 2015 – this Act is about improving the social, economic, environmental and cultural well-being of Wales. The Act makes the public bodies listed in the Act think more about the long term, work better with people and communities and each other, look to prevent problems and take a more joined-up approach. It also means that, for the first time, public bodies listed in the Act must do what they do in a sustainable way.

Well-being Statement – required under the Well-being of Future Generations Act, the Well-being Statement produced by NRW defines and sets out our Well-being Objectives and the steps we are taking to achieve them. In time this will be included in our Corporate Plan.

WGWE (Welsh Government Woodland Estate) – Welsh Government owned woodlands in Wales which are managed by Natural Resources Wales.

Zero waste – an approach encouraging the redesign of resource life cycles so that all products are reused. The goal is for no waste to be sent to landfills or incinerators. The process recommended is one similar to the way that resources are reused in nature



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