

CALDERDALE

ECOLOGICAL EMERGENCY

ACTION PLAN 2024-30



WILDER CALDERDALE PARTNERSHIP - AUGUST 2024

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FOREWARD

THE CHALLENGE WE FACE

Our natural environment is our most precious inheritance. Calderdale is blessed with iconic and dramatic landscapes and a mosaic of habitats which provide a haven for vulnerable wildlife. Sadly, we've taken this treasure for granted for far too long. Only a fraction of our habitats stands in a near natural state, and the **State of Nature report** sounded the alarm that nearly one in six species nationwide faces extinction. Changes in the way we manage our land, rivers and waterways, along with growing pressure from climate change, are the biggest drivers of wildlife decline across our landscape.

AN ECOLOGICAL EMERGENCY

In 2021, Calderdale Council declared an ecological emergency. We face the stark reality that our beloved wildlife and wild spaces are under threat and facing major challenges to their future. We understand that taking urgent action is not just a choice, but a necessity needed to confront the ecological and climate emergency we face. The essence of our approach is to work together to find effective, ambitious and evidence-based solutions and make a positive impact for nature's recovery.

THE IMPACT OF CLIMATE CHANGE

Make no mistake: nature's loss and climate change are deeply interrelated and present major risks to the future of Calderdale. A nature-positive, net-zero carbon future is the only one in which people and the planet can thrive. This is not an either/or situation: we need to take an innovative approach to finding nature-positive solutions alongside rapid decarbonisation. That's why this action plan links to tackling many of the borough's biggest challenges head on. As climate change results in more frequent and intensive storm events, restoring Calderdale's natural flood defences, such as peatlands, wetlands and woodlands, becomes an environmental imperative and a safeguard for our communities, businesses, and way of life. We've also committed to becoming a carbon-neutral borough by 2038.

WORKING TOWARDS A COMMON GOAL

To achieve these big ambitions, we're bringing together organisations across the public, private, cultural, charitable and academic sectors that share a common goal of helping drive the recovery of declining habitats and species and building resilience to pressures on nature. We will do this in line with what science defines as our natural environment's limits and on a socially equitable basis. Every citizen of Calderdale has the right to live, work and study in a healthy environment, and we will safeguard that right.

OUR PLEDGE

We pledge to leave Calderdale's natural environment in a far better state than we found it. Our ecological emergency action plan sets out our comprehensive and long-term approach to protecting and enhancing it for the benefit of present and future generations. Please join us on our journey to create a wilder Calderdale.

We use **'we'** throughout the document
to refer to our actions.

'We' refers to all of us in the borough of Calderdale.

Tributary of the
River Calder

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INTRODUCTION

WILDER CALDERDALE PARTNERSHIP

Wilder Calderdale is the name of an ambitious nature restoration partnership which brings together organisations across the public, private, community, charitable, cultural, and academic sectors to inspire and implement a landscape-scale approach to nature's recovery.

The partnership is built on the foundations of Calderdale Council declaring an ecological emergency in 2021, recognising that our wildlife and wild spaces are under threat and facing major challenges in our uncertain world. **By working together** on our shared common goal of driving the restoration of nature, we can find effective solutions and make a positive impact for nature's recovery. Many of those solutions are set out as objectives of this ecological emergency action plan.

WHAT DO WE WANT TO ACHIEVE?

By 2030, we want to see a more natural Calderdale that is made up of a thriving and diverse network of habitats, species and healthy landscapes, which is resilient to the pressures being placed on it by climate change and other factors.

The ecological emergency action plan is our compass, guiding us with core values and objectives.

OUR VALUES

- **Collaboration:** Bring together a wide range of organisations to deliver a landscape-scale approach to habitat restoration and nature recovery in Calderdale. By working collaboratively, we aim not only to halt but to reverse the decline in biodiversity, focusing on the revival of degraded habitats and recovery of key species of wildlife, including wild animals, plants and fungi.
- **Systems thinking:** Produce and deliver a bold new strategy to ensure wildlife habitats in Calderdale are made bigger, are managed better and are more joined up. This will be underpinned by a recognition that what's good for nature is good for biodiversity, climate, flood mitigation, water quality and wildfire resilience.
- **Innovation:** Drive a collective change in approach through collaboration and new thinking, to ensure that innovation is embedded in land and water management, across partnership organisations, to deliver nature restoration in Calderdale.

- **Community and education:** Create opportunities for hands-on action and learning, to ignite passion in communities for nature recovery and the ownership that builds stewardship and care. Empowering our borough's diverse communities to drive nature's recovery.
- **Green economy:** Restoring nature isn't just about ecology and the climate; it's an economic catalyst. We will be pro-active in seizing the opportunities which nature restoration presents to revitalise our communities, create green jobs, impart valuable skills, and bring economic and social benefits to the people who live, work and study in Calderdale.

CORE OUTCOMES AND OBJECTIVES:

The Wilder Calderdale partnership will work together to achieve the following outcomes and objectives:

OUTCOME 1:

Nature is in recovery and delivering more benefits for the people of Calderdale

OBJECTIVE	Protect and improve at least 30% of Calderdale's land, rivers and other wetlands for nature by 2030
OBJECTIVE	Overall increase the natural capital of Calderdale, especially the value of biodiversity, carbon storage and water quality and management, by 2030.
OBJECTIVE	Provide support for landowners and land managers, including farmers, with accessing the growing number of public and private finance options available to help align nature restoration with land and water management approaches.

OUTCOME 2:

Calderdale is home to more resilient habitats and landscapes, responding to and adapting to climate change

OBJECTIVE	Overall increase in water attenuation for flood and drought mitigation and prevention of wildfire habitat loss
OBJECTIVE	Diversification of habitats to ensure resilience to climate pressures, invasive species and disease



OUTCOME 3:

A diverse community enjoy, value and help look after Calderdale's landscapes

OBJECTIVE

Help enable greater access to nature to ensure a more diverse community are able to enjoy, value and help look after Calderdale's landscapes.

OBJECTIVE

Support more community ownership and management of land to ensure nature's recovery is socially equitable.

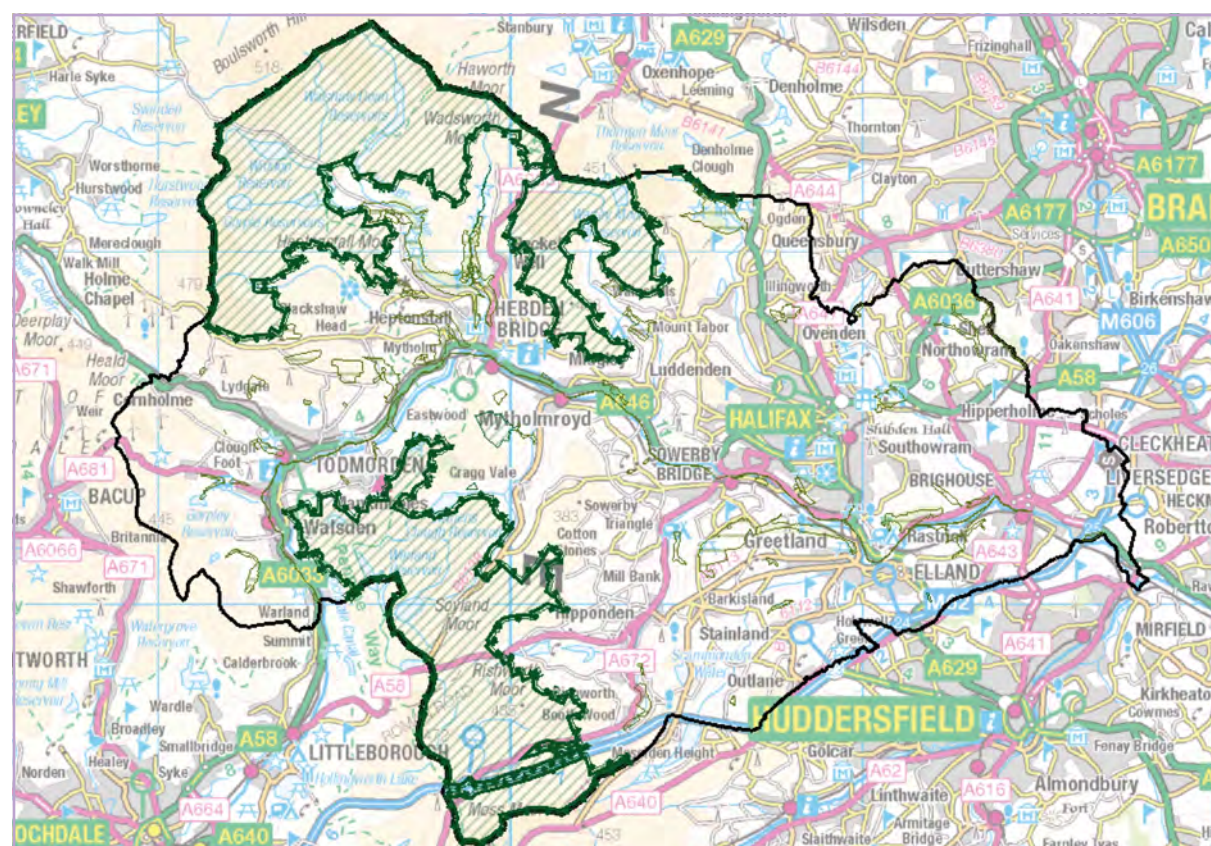


Fig 1.

Wilder Calderdale's primary objective is to secure the protection and improvement of at least 30% of Calderdale's land, rivers, and other wetlands for nature by 2030. This includes the South Pennine Moors Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Special Area of Conservation (SAC), which is made up of many important habitats and species which are currently in unfavourable condition.



ECOLOGICAL EMERGENCY ACTION PLAN

WILDER CALDERDALE'S MISSION

Wilder Calderdale is all about looking forward to a nature-positive future. It's about making the most of the organisations, skills, and knowledge in the borough and beyond so we can create bigger, better and more joined-up landscapes in the long term. Through this bold approach, we seek to protect and improve at least 30% of Calderdale's land, rivers and other wetlands for nature by 2030 .

SIX PRIORITY AREAS

The journey to a wilder Calderdale is an exciting and invigorating one in which people come together to weave back the threads of biodiversity, mend our fragmented and damaged ecosystems and secure a future where the pulse of nature beats strong once again. To achieve this, we have identified six key areas for nature's recovery, which are the bedrock on which this Ecological Emergency Action Plan is built:

- Making space for nature in all our communities, rural and urban.
- Reviving ancient grasslands
- Rewetting peatlands on a landscape scale
- Reconnecting and restoring rivers, waterways and wetlands
- Restoring, expanding and connecting woodlands and hedgerows
- Providing targeted recovery for the most vulnerable species

Whilst these are our priorities in the years leading up to 2030, we will not neglect opportunities to protect and restore other crucial wildlife and habitats, such as scrubland and those identified as priority habitats and species for Calderdale.



Heron on the Calder
and Hebble Navigation

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LEARNING FROM THE PAST TO INFORM THE FUTURE

The main causes of nature's decline, including climate change and intensive land management, are clear, as are the main ways we can reduce impacts on habitats and help struggling species. Those approaches are set out in this Ecological Emergency Action Plan. The good news is that urgent action taken now can reverse the nature loss and the damage of recent decades. To help guide our approach, there are many years' worth of successful conservation practice to draw upon and, for many habitats and some species, there is detailed evidence of what works.

Sir David Attenborough, the renowned broadcaster, biologist and natural historian, said at the 2021 COP26 climate summit in Glasgow:

“If working apart, we are a force powerful enough to destabilise our planet, surely, working together, we are powerful enough to save it.”

We are at a critical juncture where the imperative to restore nature becomes not just an option but a necessity. There has never been a more urgent time to act, as individuals and collectively, than now.

PRIORITY ONE

MAKING SPACE FOR NATURE IN OUR COMMUNITIES

Nature has a vital role to play in contributing to a sense of place and community. This integration fosters a profound connection between people and their environment, making our communities vibrant, healthy and resilient. The benefits extend beyond aesthetics, contributing to improved physical and mental health, reducing the effects of climate change, cleaning our air and water, protecting biodiversity and supporting our local economy.

By making changes to provide more quality and connected spaces for birds, mammals and insects within the built environment, we can encourage wildlife to live and thrive in our communities and ensure important wildlife corridors remain connected.

Working together, we will scale up action for nature by:

- Installing bird and bat boxes and wildlife crossings in neighbourhoods across Calderdale to expand the areas available for wildlife to nest, move around, forage and breed within the built environment.



- Bringing green spaces into our communities by expanding the corridors of street trees, community orchards and hedgerows. Additionally, we will drive opportunities for fitting buildings and other structures with green walls, transforming them into places that accommodate wildlife and bring cooling to densely populated areas.
- Develop innovative ways of working with developers and existing communities to deliver new Sustainable Drainage Systems (SuDS) for water management and creation of new habitat.

TURN YOUR GARDEN, COMMUNITY SPACE OR SCHOOL GROUNDS INTO A WILDLIFE HAVEN

You can get closer to nature by transforming your garden into a haven for local wildlife. Here are some simple steps you can take to help birds, insects and other wildlife flourish in your garden:

- Putting up bird boxes, creating ponds and insect hotels helps provide shelter and a home for a variety of wildlife, including birds, frogs and the insects they rely on for food.
- Taking part in No Mow May by relaxing the frequency of mowing in spring and summer helps create grassy and wildflower areas that provide habitat for bees, butterflies and other wildlife.
- Opting for peat-free compost: peatlands are vital ecosystems for wildlife and carbon storage, yet they are dug up in some places for compost. Switching to peat-free alternatives not only fosters a wildlife-friendly garden, but also contributes to the preservation of peatlands for the benefit of nature and the climate.
- Minimising chemical use: Chemical pesticides and herbicides can harm beneficial insects, birds and other wildlife. By reducing or eliminating their use, you create a healthier environment for wildlife to thrive, promoting a sustainable ecosystem in your garden.

Explore further tips for creating a nature-friendly garden by visiting the Wildlife Trust's comprehensive guide: www.wildlifetrusts.org/actions/how-start-wildlife-garden-scratch

Nature-friendly gardens
provide essential support for
bees, butterflies and other
pollinators

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CASE STUDY

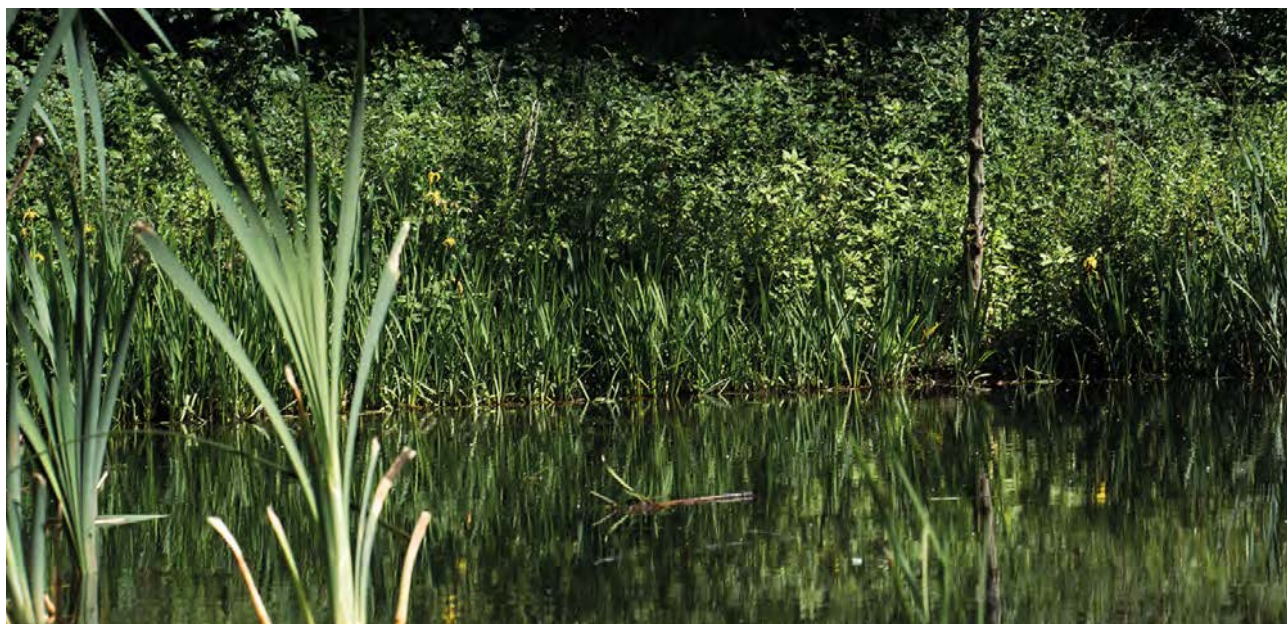
From landfill site to nature reserve: the remarkable transformation of Cromwell Bottom

Cromwell Bottom, near Brighouse, stands as one of Calderdale's most treasured nature reserves. Jointly maintained by the dedicated efforts of the Cromwell Bottom Wildlife Group and Calderdale Council, the reserve embodies community action for nature.

Created on an old landfill site in 2000, the area has been transformed into a thriving haven for wildlife. Its wetlands and meadows teem with diverse species of birds, mammals and insects. Thanks to the unwavering support of volunteers, bird boxes, tranquil ponds and viewing areas have been put up and created across the reserve.

The reserve serves as a hub for community engagement and education, hosting regular events that foster a shared appreciation for nature among locals. To find out more about Cromwell Bottom Nature Reserve visit:

www.cromwellbottomlnr.co.uk



PRIORITY TWO

REVIVING ANCIENT GRASSLANDS

Grasslands are species-rich and seminatural habitats which are home to some of nature's most fragile plants and wildlife. They can also be agriculturally productive, forming part of our grazed landscape. Contrary to expectation, these ecosystems boast more than just grass: they're a tapestry of sedges, wildflowers, and mosses. Every year, these grasslands erupt in a breath-taking display of jewel-coloured waxcap mushrooms and twisting coral-like fungus pushing up through the mossy vegetation.

Within these landscapes, a symphony of life thrives – bees, butterflies, moths, curlew, hares, and hedgehogs, to name a few. Meadows and grasslands provide sanctuary to a multitude of species. Both climate and biodiversity benefit from reviving ancient grasslands, as species-rich grasslands serve as significant carbon reservoirs, capable of drawing carbon from the atmosphere and securely sequestering it in the very soil beneath our feet, given careful management through conservation grazing and seasonal cutting.

With sustainable management, grasslands can also help protect our communities from flood risk by slowing the flow of water during periods of high rainfall. Tragically, many of Calderdale's grasslands languish in a state of degradation due to a lack of active, sustainable management. This is causing a rapid decline in both grasslands and the myriad of plant and wildlife species they once supported. The good news is it's not too late to revive our borough's meadows and grasslands. With the right commitment to care and stewardship, they can flourish once more.

Working together, we will scale up action for nature by:

- Launching an innovative conservation grazing project, deploying a rotational herd of hardy cattle and Exmoor ponies to breathe life back into Calderdale's ancient and species-rich grasslands.
- Working with partners to establish a seedbank, ensuring ready access to local seeds and materials crucial for supporting the restoration of wildflower meadows and pasture restoration across Calderdale.
- Sensitively establishing more wood meadows, fostering an integrated blend of woodland, scrub and grassland habitats to enrich our landscape with biodiversity and resilience.



Conservation grazing plays a vital role in grassland regeneration by mimicking the natural behaviour of long-lost wild herbivores

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CASE STUDY

High Hirst Woodmeadow: restoring grasslands for nature, climate and people.

High Hirst Woodmeadow is an ambitious initiative led by Hebdenroyd Town Council and Calderdale Council with the joint aim of nurturing biodiversity and tackling climate change. Nestled on the hillside above Hebden Bridge, this project encompasses four acres of land, meticulously managed to create a rich mosaic of habitats.

Through managing a diverse blend of woodland and flower-rich meadows, High Hirst Woodmeadow offers a space for a myriad of wildlife species, from birds and mammals to insects. By nurturing ancient grasslands and wildflower meadows, the project not only fosters biodiversity, but also acts as a vital carbon sink, capturing and storing the climate-altering gas in the soil.

The strategic and sustainable management of the woodmeadow also aids in mitigating flood risk, as the natural landscape slows the flow of runoff water during periods of intense rainfall. High Hirst woodmeadow showcases how sustainable management can create a complimentary blend of nature conservation and climate resilience.



PRIORITY THREE

REWETTING PEATLANDS ON A LANDSCAPE SCALE

Peatlands are not just an important wildlife haven but a symphony of life. From elusive dunlins and majestic curlews to sphagnum mosses and carnivorous wonders like sundews, these ecosystems host a plethora of flora and fauna. Beyond their biodiversity, healthy peatlands store huge amounts of carbon, protect our communities from flood risk by slowing the flow of run-off water from the moors during periods of high rainfall, clean water and their waterlogged state helps ensure the upland landscape is more resilient to wildfires.

However, the reality is that peatlands in Calderdale, like elsewhere in the UK, are under threat. Decades of draining, burning, overgrazing and pollution, coupled with growing pressures from climate change, are drying out and degrading our fragile peatlands. The vital role they play in maintaining a healthy environment could be lost if urgent action is not taken.

Even within Calderdale's protected landscapes, like the South Pennine Moors Site of Special Scientific Interest (SSSI), Special Protection Area (SPAs) and Special Area of Conservation (SACs), our peatlands face challenges. We cautiously recognise that, overall, despite these protections, many of these sites are in an unfavourable condition, highlighting the need for a new approach.

Working together, we will scale up action for nature by:

- Committing to the protection and restoration of peatland across Calderdale's shallow and deep peat soils, securing the role of upland landscapes for community climate and flood resilience.
- Working with landowners and land managers, including farmers, and other partners to explore an ecosystem services-based market for long-term peatland management.
- Expanding the Calderdale Sphagnum Nursery Project to provide sustainable and trusted sphagnum moss production for peatland restoration in Calderdale and beyond.



Sphagnum moss for peatland restoration projects across the South Pennines is being cultivated in a nursery in Halifax

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CASE STUDY

The 'giant sponge' moorland boosting biodiversity, tackling climate change and protecting Calderdale's communities from flooding

An area of Rishworth Common is undergoing a transformation into a 'giant sponge' as part of a collaborative effort between peatland restoration specialists, Moors for the Future partnership, and Yorkshire Water, the landowner. The initiative has involved constructing hundreds of peat bunds across the moorland. These scallop-shaped banks hold water behind them, helping to re-wet the peatlands.

Stone dams are being installed to block drainage ditches and slow the flow of rainwater running off the moorland, while thousands of sphagnum moss plugs are

also being planted in the resulting soaked ground to create boggier habitats and hold moisture in the soil. The goal is to cultivate a lush carpet of sphagnum moss across the moors, a process that would gradually rejuvenate the sensitive peat soils and restore the land to its former vitality.

This ecological restoration is not merely aesthetic; it promises significant benefits for nature and the climate. The rejuvenated moorland will provide a home for a variety of breeding birds, including dunlin, curlew and short-eared owl. Moreover, by sequestering substantial amounts of carbon in the peatlands, the project contributes to climate mitigation efforts. Additionally, by slowing the flow of water downstream, it reduces the risk of flooding in local communities and the restored peatland helps to improve the quality of raw water sourced from the moorland.



Photos by Moors for the Future partnership



PRIORITY FOUR

RECONNECTING RIVERS, WATERWAYS AND OTHER WETLANDS

The River Calder and its tributaries are the veins and arteries running through our valley. As they wind their way from the moorlands through our towns, these waterways provide a home to a wide range of aquatic wildlife. The closure of industrial-era dye factories and tanneries marked a turning point, cleansing the river from some of the worst pollution. Yet, our work is far from over to elevate the river and its tributaries to its prime state.

Weirs and river walls remain a relic from the industrial era, fragmenting our rivers, smothering in-river habitat and disconnecting rivers from surrounding habitats – leaving important wildlife corridors broken up. Migratory fish like salmon and trout are prevented from reaching their spawning grounds and impounded stretches of water are more susceptible to the impacts of climate change and pollution events.

Many of the rivers and tributaries are overrun by invasive species like Himalayan Balsam and Japanese Knotweed instead of the rich riparian woodlands which provide dapples of shade and sunlight for aquatic wildlife. However, amidst these challenges, a beacon of hope emerges - the resurgence of otters, kingfishers and other wildlife, showing that positive action for our river and wetlands can make a difference.

England has lost approximately half a million ponds since 1945. Wetlands, including ponds, fen, flood meadow, wet grasslands and wet woodland, have been drained and converted into other habitats or lost to development. Space for these habitats still exists and we are often battling against natural processes to keep these areas dry.

Working together, we will scale up action for nature by:

- Reconnecting salmon and trout migration routes by sensitively dismantling barriers like weirs, removing river bank walls and installing fish passes to restore riverine habitat and river-floodplain connections, lining the riverbanks with trees to maintain a cool water temperature, and restoring ancient fish spawning grounds. Additionally, we will restore and create wetland habitats to provide more spaces for breeding and migratory birds and other wetland species.
- Stemming the tide of invasive species, particularly Himalayan Balsam, Giant Hogweed and Japanese Knotweed, by giving focus to innovative biosecurity techniques and prioritising management in the river's headwaters, aimed at reducing downstream proliferation.
- Driving action to eliminate pollution from sewage discharges, intensive land use and highways run-off into the River Calder and its tributaries, alleviating pressure on aquatic wildlife and fortifying the health of our river ecosystems. To fulfil this ambition, we will prioritise nature-based solutions, resorting to 'concrete and chemical' alternatives only as a last resort.



Work is underway to restore and reconnect Calderdale's rivers and tackle the harm caused by pollution

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HERE ARE SOME OF THE INVASIVE SPECIES FOUND IN CALDERDALE

Himalayan balsam, an invasive weed mostly found along riverbanks and ditches, poses a significant threat to native species by outcompeting them for space and resources. This fast-growing plant rapidly spreads, particularly in wet habitats, displacing native flora and accelerating erosion of riverbanks. Adding to its invasive nature, its seed pods explode, dispersing seeds downstream and facilitating its relentless spread. Balsam blooms from July to October, during which time it's crucial to avoid disturbing it to prevent further seed dispersal.



Rhododendron ponticum, a pervasive invasive shrub, spreads by seeding and layering branches, eventually creating a dense canopy that blocks out light and devastates woodland biodiversity. Protecting and restoring habitats affected by this invasive shrub is a top conservation priority for Calderdale.



Giant hogweed stands tall with thick, bristly stems often adorned with purple blotches. Despite its visual appeal, this invasive species poses significant risks to both people and the environment. Its sap contains chemicals that can induce blistering, pigmentation and leave lasting scars on the skin.



Japanese knotweed, known for its rapid spread, presents a significant invasive threat. During winter, the plant retreats to ground level, seemingly dormant. However, come early summer its bamboo-like stems emerge vigorously from deep underground, towering over 2 metres in height. This aggressive growth stifles all competing plant life, resulting in severe repercussions for biodiversity.



CASE STUDY

Creating a new wetland nature reserve at Brearley Fields

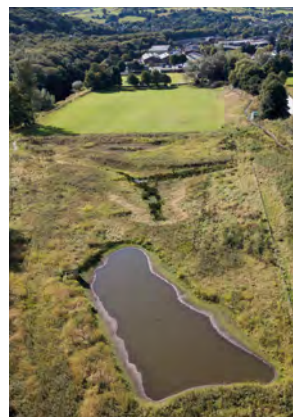
Brearley Fields is an innovative new wetland reserve, near Mytholmroyd, created in partnership by Calderdale Council, the Environment Agency and Yorkshire Wildlife Trust to provide space for nature, an asset for the community to enjoy and ensure natural flood protection for communities in the Calder Valley.

The wetland, on the floodplain of the River Calder, features two large new ponds which provide a magnet for wetland birds and invertebrates. A huge scrape, a temporary pond, connects the river to much of the site, which fills and drains as river levels naturally rise and fall. Sections of the exiting flood embankment have also been removed, improving connectivity between the river and its floodplain, re-establishing natural, dynamic river processes. Backwaters of the river have also been enhanced, providing habitat for juvenile fish which thrive in the warm, shallow waters.

To find out more about Brearley Fields Wetland Reserve visit:

<https://eyeoncalderdale.com/blog/wetland-nature-reserve-at-brearley-fields/>

Brearley Fields scheme was funded by the EU European Regional Development Fund as part of the Calderdale Greening Project.



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PRIORITY FIVE

RESTORING, EXPANDING AND CONNECTING WOODLANDS AND HEDGEROWS

Woodlands and trees are essential for people, for wildlife and for life. They are home to more wildlife than any other landscape and provide sanctuary for thousands of species, including some of our most beloved wild animals. Yet their significance extends beyond fauna, embracing a rich diversity of flowering plants, primitive ferns, mosses and lichens, and enchanting bluebells carpeting many woodlands in spring.

From freshly planted saplings to woodlands which are centuries old, the benefits of healthy and well-managed woodlands resonate far and wide. They are huge carbon stores, purify our air and protect our communities from flood risk by slowing the flow of water during periods of high rainfall. However, like the rest of Calderdale's natural environments, our woodlands face a barrage of threats. Without effective biosecurity measures, invasive species and diseases sweep through, choking the life out of these ecosystems, depriving them of sunlight and the ability to breath, essential for ground flora to thrive. With the advent of climate change, these challenges will only intensify if left unchecked.

The time for action is now - to restore, expand and protect our irreplaceable woodland ecosystems.

Working together, we will scale up action for nature by:

- Working with landowners and land managers, including farmers, and other partners to develop restoration plans for Calderdale's woodlands, ensuring they are healthy, biodiverse and sustainably managed. This will include enhancing our understanding of the woodlands we cherish, taking action to map and survey these vital habitats, uncovering the wealth of wildlife that calls them home.
- Ensuring the creation and expansion of native woodland and hedgerows through natural regeneration and well-planned tree planting, centred around the 'right tree in the right place'. This will form part of Calderdale's commitment to increase canopy cover from 4,322 hectares to 6,794 hectares by 2050, as outlined in the White Rose Forest Action Plan 2021 - 2025 .
- Expanding the Calderdale tree nursery projects, such as Forus Tree, to provide sustainable and trusted native tree production for woodland restoration in Calderdale and local areas.

CASE STUDY

A model of sustainable woodland management: National Trust's conservation efforts at Hardcastle Craggs

Hardcastle Craggs, one of the most iconic woodlands in the Calder Valley, spans over 400 acres and is carefully managed by the National Trust. This picturesque area, home to the northern hairy wood ant, features tumbling streams and magnificent waterfalls that attract thousands of people to engage with nature annually.



Continuous, year-round stewardship of Hardcastle Craggs is required to support its diverse species and enhance habitat quality. The National Trust is working to boost local wildlife by increasing light levels on the woodland floor through thinning and selective felling. This practice is crucial for the natural regeneration of ground flora, including trees and wildflowers. Where regeneration hasn't occurred naturally, new trees are brought planted to ensure continued growth.

Creating both standing and fallen deadwood is another key part of sustainable management of the woodland, offering vital habitats for various species, including fungi, beetles and birds. Efforts are also focused on removing harmful invasive species, such as Himalayan balsam, which hinders native flora and obstructs tree regeneration.

In addition to fostering biodiversity, Hardcastle Craggs plays a significant role in combatting climate change by sequestering substantial amounts of carbon within the woodland and its interconnected web of plant-life. To further support environmental stewardship, leaky dams are being installed on waterways in collaboration with Slow The Flow. These dams help reduce the risk of downstream flooding, illustrating the multifaceted benefits of sustainable woodland management at Hardcastle Craggs.

To find out more about Hardcastle Craggs, visit: www.nationaltrust.org.uk/visit/yorkshire/hardcastle-craggs/our-work-at-hardcastle-craggs



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CASE STUDY

Landscapes for Water: bringing back Calderdale's lost clough woodlands

Landscapes for Water is an ambitious partnership involving the National Trust, Yorkshire Water, the Woodland Trust, White Rose Forest, West Yorkshire Combined Authority and Moors for the Future partnership. The initiative aims to restore and improve a significant area of uplands through a landmark programme of nature restoration.

The programme focuses on restoring five areas of the South Pennine Moors, including Ryburn and the neighbouring Baitings reservoir in Calderdale. This includes efforts to reverse historic loss of significant woodland areas by carefully restoring biodiverse clough woodlands in the steep-sided ravines on the edge of open moorlands.



Photo by Yorkshire Water

By recreating clough woodlands, the project aims to rejuvenate these vital habitats, enhancing the diversity and condition of some of Calderdale's most important upland nature sites. In the long term, it is hoped these new woodlands will provide homes for threatened species such as black grouse, pine marten and red squirrel. Additionally, the initiative aims to boost populations of birds like redstart, pied flycatcher, ring ouzel and nightjar.

Beyond benefiting wildlife, the restored clough woodlands will capture carbon to tackle climate change, improve water quality and provide protection for homes and businesses in the Calder Valley by slowing the flow of water running off the moors.

To find out more about Landscapes for Water, visit:

www.nationaltrust.org.uk/visit/yorkshire/marsden-moor/landscapes-for-water

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Calderdale has lost many of its clough woodlands from the upland landscape, but efforts are now underway to restore them

Photo by Yorkshire Water

PRIORITY SIX

PROVIDE TARGETED RECOVERY FOR THE MOST VULNERABLE SPECIES

In the intricate web of Calderdale's ecosystems, some of our most cherished species face an uncertain future. Echoing a national trend, Calderdale is witnessing a concerning decline in the diversity and abundance of many species. The once vibrant tapestry of wildlife has frayed, with habitat loss and climate change casting a long shadow. While habitat restoration promises hope for many, there exists some species in need of a focused programme of support. Wilder Calderdale is embarking on coordinating targeted conservation programmes to help save these species and protect them from the threats they face.

Working together, we will scale up action for nature by:

- Conducting annual audits of available species data for Calderdale, our data-driven approach will guide us in securing protection and restoration of priority wildlife, including that at greatest risk. This approach will result in the Ecological Emergency Action Plan replacing the Calderdale Biodiversity Action Plan.
- Launching targeted programmes for the protection and revival of the most at-risk species of wildlife in Calderdale through a mix of tested and innovative approaches, including creating habitat in targeted areas pre-reintroduction.
- When considering the reintroduction of species of wildlife to their natural habitats, we pledge to adopt a measured, evidence-based and ethical approach. Our commitment extends to adhering to the **'Reintroductions and other conservation translocations: code and guidance for England (publishing.service.gov.uk).'**, ensuring we navigate the delicate balance of opportunities and risks with wisdom and care.

Calderdale's Ecological Emergency Action Plan sets out the starting point for what action needed to be taken, though there are additional opportunities to protect and restore wildlife and habitats that shouldn't be neglected. You can find more details about other priority habitats and species at: www.calderdale.gov.uk



Red squirrels became locally extinct in Calderdale in the late 1980s, but we hope for their return

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CASE STUDY

Battle for survival: protecting native crayfish from invasive threats in Calderdale

In a remote rural watercourse nestled within Calderdale resides a population of white-clawed crayfish, a beacon of hope for the critically endangered species in the UK.

These native freshwater crayfish face a perilous threat from the invasive American signal crayfish, which not only spread a fatal disease but also compete for resources. Despite their crucial role in maintaining the cleanliness of our waterways, the white-clawed crayfish have struggled against the relentless advance of their more aggressive invasive counterparts.

To safeguard the survival of this rare species, a collaborative effort spearheaded by the Environment Agency, alongside partners such as the Yorkshire Wildlife Trust, Calderdale Council and Calder Rivers Trust, is underway. This concerted effort aims to enhance the chances of survival for the white-clawed crayfish.

One key aspect involves the establishment of arc sites – designated areas along waterways where invasive species are kept at bay, allowing for the reintroduction of white-clawed crayfish. Additionally, promoting rigorous biosecurity measures, such as the 'Check, Clean, Dry' protocol, is imperative to bolster their chances of survival within the interconnected web of river ecosystems.



Photos by Matt Harwood



INTERNATIONAL, NATIONAL AND REGIONAL DRIVERS

Key drivers – legislation, policy and strategies informing the Ecological Emergency Action Plan

INTERNATIONAL:

- Kunming-Montreal Global Biodiversity Framework – 30% of land and water protected for nature by 2030
- UN Decade on Ecosystem Restoration 2021 - 2030
- UN Sustainable Development Goals (SDGs)

NATIONAL:

- 25 Year Environment Plan
- Environment Act 2021 – Biodiversity net gain and halting biodiversity loss by 2030
- Climate Change Act 2008 – Carbon net zero across UK by 2050
- Agriculture Act 2020 – Public money for public goods

REGIONAL:

- Calder and Colne Catchment Partnership (CaBA) Strategy
- Calderdale Climate Action Plan – Carbon net zero in Calderdale by 2038
- Calderdale Flood Action Plan
- Calderdale Local Plan
- Calderdale Species Audit
- Calderdale Vision 2024
- Humber River Basin Management Plan (including Calder Catchment Plan)
- West Yorkshire Climate and Environment Plan
- West Yorkshire Local Nature Recovery Strategy
- White Rose Forest Action Plan 2021 - 2025



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KEY ACTIVITIES

The appendix lists key activities that are planned or being explored as part of the Ecological Emergency Action Plan. The activities are grouped into the following themes:

- Overarching themes
- Green built environment
- Grasslands
- Peatlands
- Rivers, waterways and wetlands
- Woodlands and hedgerows
- Species conservation and restoration

DELIVERY AND REPORTING

Our Wilder Calderdale partnership will ensure the actions outlined in this plan get delivered. We want to be clear on how the partnership runs and be open about the decisions we make.

Through this plan we will share evidence, best practice, and support joint activities with partners that promote and encourage others to get involved. This will include the formation of task and finish groups, made up of experts in the habitats and species we are focusing on, to guide delivery of nature restoration ambitions.

Achievements under the plan will be reported, including progress towards quantifiable targets. The plan includes actions to gather evidence to set baselines. How we measure progress and what is being counted will be clearly communicated. This will include protecting and improving at least 30% of our land, rivers and other wetlands in Calderdale by 2030.

We will review the action plan every six months to ensure that we remain on track with our ambitions to protect and restore nature in Calderdale.

COMMUNICATION AND PARTNERSHIP WORKING

Calderdale Council has a responsibility to engage clearly and share updates with the wider public about the progress of the plan. There is a high level of public interest in how sites across the borough are managed for the benefit of nature.

To facilitate this, the Council will create an ecological emergency page and microsite which will include updates on progress and links to information about a range of popular topics. In addition, the Council using its governance and our own communications channels will play a crucial role in engaging citizens and reporting progress.

ADDITIONAL INFORMATION

A growing portfolio of environmental policy mechanisms have been developed to facilitate the vital task of nature conservation and restoration. Here in Calderdale, we are committed to harnessing these mechanisms, drawn from both the public and private sectors, to effectively realise the ambitious goals set out in our Ecological Emergency Action Plan.

Through a strategic amalgamation of these and other approaches, we aim to not only safeguard our landscapes, but also nurture their revival and sustainability for generations to come.

THE ENVIRONMENT ACT 2021

Calderdale Council, as a partner in Wilder Calderdale, has existing statutory duties and requirements to protect and enhance wildlife and habitats that are enacted through strategic plans, policies and practice.

The Environment Act 2021 recently brought into UK law a number of measures which together are designed to help deliver long-lasting action for the protection and recovery of nature. These actions are set out in the Government's 'A Green Future: Our 25 Year Environment Plan'. The Environment Act measures of relevance to our ecological work are:

West Yorkshire's Local Nature Recovery Strategy is delivering a system of mapping and prioritising nature recovery. Covering the whole of West Yorkshire, including Calderdale, the strategy for the region will:

- Map the most valuable existing habitat for nature.
- Map specific proposals for creating or improving habitat for nature and wider environmental goals.
- Agree priorities for nature's recovery.

The WY LNRS will guide smooth and effective delivery of a portfolio of nature recovery measures, including Biodiversity Net Gain (BNG).



Locally led by the West Yorkshire Combined Authority (WYCA), under the leadership of Mayor Tracy Brabin and with the input of a wide range of stakeholders, the WY LNRS will help identify the opportunities and priorities for enhancing biodiversity and supporting wider objectives such as mitigating or adapting to climate change across the region.

A strengthened biodiversity duty set out in the Natural Environment and Rural Communities Act 2006 includes a duty on public authorities, including Calderdale Council, to have regard for the conservation of biodiversity. The Environment Act strengthened this duty, placing an expectation on the Council to look strategically at its policies and operations. This includes assessing what action can be taken to further the conservation and enhancement of biodiversity, including regard to the West Yorkshire Local Nature Recovery Strategy. The Council will be required to produce a biodiversity report every five years.

Biodiversity Net Gain (BNG) of 10 per cent net gain became mandatory for housing and development in November 2023, meaning habitats for wildlife must be left in a measurably better state than before the development. Developers must submit a 'biodiversity gain plan' alongside usual planning documents. Calderdale Council will assess whether the 10 per cent net gain requirement is met. If net gain is not achievable on-site, off-site habitat creation and enhancements can be agreed.

CLIMATE CHANGE ACT 2008

Climate change is one of the biggest drivers of biodiversity decline and habitat loss. To focus action on addressing the threat posed to our communities and environment by climate change, the Climate Change Act 2008 commits the UK government, by law, to reducing greenhouse gas emissions by at least 100% of 1990 levels by 2050. This is widely referred to as achieving carbon net zero.

In Calderdale, we have set a more ambitious target by committing to becoming a carbon neutral borough by 2038. The action needed to achieve this goal is set out in the Calderdale Climate Action Plan, which recognises the important role that nature restoration plays in drawing down carbon from the atmosphere and storing it in habitats. This includes, but isn't limited to, peatlands and woodlands.

To facilitate the funding of nature restoration through the sale of carbon sequestration and other ecosystem services, a number of voluntary codes exist. These codes help set recognised standards to ensure that nature restoration is not only environmentally sustainable but also economically viable for landowners and land managers:

The Peatland Code is a widely recognised voluntary certification standard for UK peatland projects wishing to market the climate benefits of peatland restoration and provides assurances to voluntary carbon market buyers that the climate benefits being sold are real, quantifiable, additional and



permanent. It achieves this by setting out a series of best practice requirements, including a standard method for quantification of greenhouse gas benefit.

The Woodland Carbon Code is the quality assurance standard for woodland creation projects in the UK and generates high integrity, independently verified carbon units. Backed by the Government, the forestry industry and carbon market experts, the WCC provides woodland carbon units across the UK, including in Calderdale. WCC projects also provide social and environmental benefits for many local communities. These include biodiversity and habitat creation, improvements in health and wellbeing, benefits for farming, local employment and educational opportunities.

AGRICULTURE ACT 2020

In England, the agricultural support system, known as the Environmental Land Management schemes (ELMs), is based on a model of 'public money for public goods'. In a land-use context, public goods can include biodiversity enhancement, carbon storage, flood protection and water quality improvements. This is set out in the Agriculture Act 2020 which underpins the provision of public finance to landowners and land managers delivering public goods:

- Managing land or water in a way that protects or improves the environment
- Supporting public access to and enjoyment of the countryside, farmland or woodland and better understanding of the environment.
- Managing land or water in a way that maintains, restores or enhances cultural or natural heritage.
- Managing land, water or livestock in a way that mitigates or adapts to climate change.
- Managing land or water in a way that prevents, reduces or protects from environmental hazards.
- Protecting or improving the health of plants.
- Conserving plants grown or used in carrying on an agricultural, horticultural or forestry activity, their wild relatives or genetic resources relating to any such plant.
- Protecting or improving the quality of soil.



The Sustainable Farming Incentive is one of three Environmental Land Management schemes that use public money to reward landowners and land managers for delivering environmentally sustainable actions.

The other two schemes are the Local Nature Recovery scheme and the Landscape Recovery scheme.

The Local Nature Recovery scheme will pay for actions that support nature recovery and deliver local environmental priorities whilst encouraging collaboration between landowners and land managers.

The Landscape Recovery scheme will support the delivery of landscape and ecosystem recovery through long-term, land use change projects such as large-scale tree planting or peatland restoration projects. In 2023, the Department for Environment, Food & Rural Affairs announced that Calderdale and Kirklees have been successful in the Landscape Recovery Round 2, with significant funding to be awarded for nature recovery as part of Calder and Colne Landscape Links.

APPENDIX 1: FULL ECOLOGICAL EMERGENCY ACTION PLAN (2024-2030)

THEME	HIGH LEVEL ACTION	DETAILED ACTION	DATE	RESPONSIBLE PARTNER(S)
Monitoring and evaluation	Monitor the progress made delivering the Ecological Emergency Action Plan	Regularly document and report progress through quarterly Wilder Calderdale partnership meetings and an annual review	2024 - 2030	All
		Ensure all nature restoration projects perform baseline and subsequent surveying to monitor habitat and species improvement	2024 - 2030	All
Nature recovery	Protect and improve at least 30% of Calderdale's land, rivers and wetlands for nature by 2030	See habitat-specific actions and targets below	2024 - 2030	All
		Support development of the West Yorkshire Local Nature Recovery Strategy by sharing habitats and species data for Calderdale	2024 - 2025	All
		Improve the condition of at least 75% of the South Pennine Moors SSSI, SAC and SPA within Calderdale by protecting and restoring habitats and species.	2024 - 2030	Calderdale Council, Natural England, Landowners and land managers
		Reviewing the South Pennine Moors SSSI, SAC and SPA designations to drive improvement for wildlife and habitats.	2025	Calderdale Council, Natural England
		Improve monitoring and data collection for the South Pennine Moors SSSI, SAC and SPA, including a new Breeding Bird Survey.	2024 - 2030	Calderdale Council, Natural England
		Grow the Wildlife Habitat Network by designating 20 new Local Wildlife Sites.	2025	Calderdale Council
		Ensure at least 67% of Local Wildlife Sites are in nature-positive management.	2028	Calderdale Council
		Legally secure and register at least two Council Owned Biodiversity Net Gain Habitat Banks on the National Biodiversity Gain Site Register.	2025	Calderdale Council, West Yorkshire Combined Authority

THEME	HIGH LEVEL ACTION	DETAILED ACTION	DATE	RESPONSIBLE PARTNER(S)
Natural capital	Increase the natural capital of Calderdale, especially biodiversity, carbon storage and water quality and management, by 2030	Perform a natural capital review of Calderdale	2025	Calderdale Council, Natural England
	Ensure landowners and land managers can access public and private finance for sustainable land management and nature restoration	Produce a cross-cutting landowner engagement strategy	2024	Calderdale Council, Calder Rivers Trust, with input from all partners
		Provide advice to farmers, landowners and land managers to access funding for sustainable land management and nature restoration	2024 - 2030	Calderdale Council, Calder Rivers Trust, Natural England, White Rose Forest
		Influence implementation and payment rates for Environmental Land Management Schemes (ELMS) for rewarding sustainable land management and nature restoration.	2024 - 2030	Calderdale Council
		Update the landowner engagement Memorandum of Understanding to ensure collaborative efforts.	2024	Calder Rivers Trust
Resilient habitats and landscapes	Increase water attenuation for flood and drought mitigation and reducing wildfire risk.	See habitat-specific actions and targets below.	2024 - 2030	All
	Diversify habitats to ensure resilience to climate pressures, invasive species and disease.	See habitat-specific actions and targets below	2024 - 2030	All
Community engagement	Enable greater access to nature for a diverse community	Promote and develop the Rights of Way network	2025 - 2030	Calderdale Council
		Influence national bodies to develop an indicator for underserved communities' enjoyment of Calderdale's landscapes	2025	Calderdale Council, Natural England
	Support community ownership and management of land	Produce a cross-cutting landowner engagement strategy, including a focus on community land ownership	2024	Calderdale Council, Calder Rivers Trust, with input from all partners
		Shape the government's 'Community Right to Buy' scheme to empower communities	2024 - 2025	Calderdale Council

THEME	HIGH LEVEL ACTION	DETAILED ACTION	DATE	RESPONSIBLE PARTNER(S)
Green built environment	Install bird and bat boxes and wildlife crossings in neighbourhoods	Deliver follow-up checks on planning applications to ensure bird and bat bricks and boxes are installed on new developments	2024 - 2030	Calderdale Council
		Collect data on swift breeding locations to inform box installations.	2024 - 2030	Calderdale Council, Calderdale Bird Conservation Group
		Install swift boxes on existing properties where nesting is recorded.	2025 - 2030	Calderdale Council, Calderdale Bird Conservation Group, RSPB
	Deliver the Calderdale White Rose Forest Plan by planting trees and hedgerows in urban areas	Expand green spaces with street trees, community orchards and hedgerows	2025 - 2030	Calderdale Council, ForUsTree, Natural England, White Rose Forest, Woodland Trust
	Ensure wildlife-friendly urban lighting	Trial wildlife-friendly street lighting in an appropriate area of Calderdale	2025	Calderdale Council
	Develop and expand the implementation of Sustainable Drainage Systems (SuDS)	Work with Calderdale Council's Major Projects Team on SuDS to ensure that biodiversity opportunities are maximised	2025 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency, Hebdenroyd Town Council, Slow The Flow, Todmorden Town Council, Water@Leeds
	Influence communities and businesses to protect and restore nature	Develop a web page on Calderdale Council's site promoting community actions such as No Mow May and reduced pesticides use	2025	Calderdale Council
		Develop a sustainable business charter for Calderdale's companies	2025	Calderdale Council

THEME	HIGH LEVEL ACTION	DETAILED ACTION	DATE	RESPONSIBLE PARTNER(S)
Grasslands	Improve the condition of at least 5% (576 ha) of Calderdale's grasslands, focusing primarily on ancient grasslands.	See detailed actions below	2024 - 2030	Calderdale Council, Calderdale Food Network, Calder Rivers Trust, Cromwell Bottom Wildlife Group, Environment Agency, Hebdenroyd Town Council, Landowners and land managers, National Trust, Natural England
		Produce a cross-cutting landowner engagement strategy, including a focus on grasslands	2024	Calderdale Council, Calder Rivers Trust, with input from all partners
	Launch a conservation grazing project with hardy cattle and Exmoor ponies	Update agreement with the Moorland Mousie Trust for Exmoor ponies	2024	National Trust
		Acquire a livestock trailer for conservation grazing	2024	Calderdale Council, National Trust, Natural England
		Recruit a Conservation Grazing Officer and Stockperson	2025	Calderdale Council, National Trust
		Acquire cattle for conservation grazing	2025	Calderdale Council, National Trust
	Establish a seedbank for local seeds	Support a pilot of seed collection at conservation grazing sites	2025	Calderdale Council, National Trust
		Develop a business case for a commercial seed bank	2026	Calderdale Council, National Trust
	Establish woodmeadows for integrated habitats	Deliver the Calderdale White Rose Forest Plan by establishing areas of woodmeadow	2025 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency, ForUsTree, National Trust, Natural England, White Rose Forest, Woodland Trust, Landowners and land managers
		Check feasibility to deliver areas of woodmeadow identified in the WY LNRS.	2025	Calderdale Council, Calder Rivers Trust, Environment Agency, ForUsTree, National Trust, Natural England, White Rose Forest, Woodland Trust, Landowners and land managers

THEME	HIGH LEVEL ACTION	DETAILED ACTION	DATE	RESPONSIBLE PARTNER(S)
Peatlands	Restore at least 80% (1,742 hectares) of Calderdale's peatlands to a natural state	See detailed actions below	2024 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency, Landowners and land managers, Natural England, Peat partnerships, Water companies, Water@Leeds
	Protect and restore peatlands across shallow and deep peat soils	Produce a cross-cutting landowner engagement strategy, including a focus on peatlands	2024	Calderdale Council, Calder Rivers Trust, with input from all partners
		Educate on wildfire prevention in Calderdale's schools	2025 - 2030	Calderdale Council, South Pennines Wildfire Group
		Take action to end the sale of disposable BBQs by retailers in Calderdale to reduce wildfire risk from mis-use in Calderdale's countryside	2025 - 2030	Calderdale Council, South Pennines Wildfire Group
	Working with landowners and land managers, including farmers, and other partners to explore an ecosystem services-based market for long-term peatland management	Work with large peatland owners on management and restoration plans	2025 - 2030	Calderdale Council, Calder Rivers Trust, Landowners and land managers, Natural England, Peat partnerships, Water companies
		Increase understanding and enable peatland owners to engage in carbon and biodiversity markets	2025 - 2030	Calderdale Council, Calder Rivers Trust, Landowners and land managers, Natural England, Peat partnerships, Water companies
		Work with water companies on peatland restoration as part of AMP programmes	2025 - 2030	Calderdale Council, Natural England, Peat partnerships, Water companies
	Expand the Calderdale Sphagnum Nursey Project	Seek funding to continue and expand the project	September 2024	Calderdale Council

THEME	HIGH LEVEL ACTION	DETAILED ACTION	DATE	RESPONSIBLE PARTNER(S)
Rivers, waterways and wetlands	Reconnect salmon and trout migration routes	Deliver Calder Catchment Partnership Plan, including by mapping and removing barriers.	2024 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency
		Explore options for streamlining the planning process to reduce constraints on weir removal.	2025	Calderdale Council, Calder Rivers Trust, Environment Agency
	Restore and create wetland habitats	Deliver Calder Catchment Partnership Plan, including by identifying opportunities for wetland creation	2024 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency, Landowners and land managers
	Tackle invasive species	Deliver Calder Catchment Partnership Plan, including by removing invasive species from waterways	2024 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency, Landowners and land managers, Yorkshire Wildlife Trust
	Drive action to eliminate pollution, from sewage, intensive land use and highways run-off, in the River Calder and its tributaries	Support and implement the findings of Calderdale Council's scrutiny review of pollution in the River Calder.	2024 - 2030	Calderdale Council, Calder Rivers Trust, Environment Agency
Woodlands and hedgerows	Develop management and restoration plans for woodlands	Produce a cross-cutting landowner engagement strategy, including a focus on woodlands and hedgerows	2024	Calderdale Council, Calder Rivers Trust, with input from all partners
		Work with the largest woodland owners on management and restoration plans	2025 - 2030	Calderdale Council, Landowners and land managers, Natural England
	Create and expand native woodlands and hedgerows, including the buffering and connection of ancient woodlands.	Deliver the Calderdale White Rose Forest Plan, with a view to increasing canopy cover by 57% (from 4,322 hectares to 6,794 hectares) by 2050.	2025 - 2030 (and beyond)	Calderdale Council, Calder Rivers Trust, Environment Agency, ForUsTree, Landowners and land managers, Natural England, National Trust, White Rose Forest, Woodland Trust
	Expand tree nursery projects	Assess demand for local tree nurseries and support funding applications for expansion in response to demand	2025 - 2030	Calderdale Council
Species conservation and restoration	Develop a Calderdale Wildlife Inventory	Procure data on species for the inventory	2024	Calderdale Badger Protection Group, Calderdale Council, Calderdale Bird Protection Group, Cromwell Bottom Wildlife Group, Environment Agency, Halifax Scientific Society, Natural England, Upper Calderdale Wildlife Network, West Yorkshire Ecology Services, Yorkshire Wildlife Trust
		Develop a list of priority habitats for Calderdale	2024	Calderdale Badger Protection Group, Calderdale Council, Calderdale Bird Protection Group, Halifax Scientific Society, Natural England, Upper Calderdale Wildlife Network
		Develop a long list of priority species for Calderdale	2024	Calderdale Badger Protection Group, Calderdale Council, Calderdale Bird Protection Group, Halifax Scientific Society, Natural England, Upper Calderdale Wildlife Network
		Develop a short list of priority species for targeted conservation and restoration projects	2024	Calderdale Badger Protection Group, Calderdale Council, Calderdale Bird Protection Group, Halifax Scientific Society, Natural England, Upper Calderdale Wildlife Network
	Launch targeted projects for priority species	Implement targeted projects for priority species	2025 - 2030	All

APPENDIX 2: ACKNOWLEDGEMENTS

Wilder Calderdale is grateful to the organisations that have supported the development of the Ecological Emergency Action Plan, in particular:

Calderdale Badger Protection Group
Calderdale Bird Conservation Group
Calderdale Climate Action Partnership
Calderdale Food Network
Calder Rivers Trust
Cromwell Bottom Wildlife Group
Environment Agency
ForUsTree
Halifax Scientific Society
Hebdenroyd Town Council
Leeds Swift Group
Manor of Rochdale
Moors for the Future Partnership
National Trust
Natural England
Plantlife International
RSPB
Todmorden Town Council
United Utilities
University of Leeds – Water@Leeds team
Upper Calderdale Wildlife Network
West Yorkshire Ecological Service
White Rose Forest
Wildlife & Countryside Link
Woodland Trust
Yorkshire Peat Partnership
Yorkshire Water
Yorkshire Wildlife Trust



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APPENDIX 3: GLOSSARY

- **Biodiversity:** Refers to the variety of living species on earth, including plants, animals, bacteria, and fungi.
- **Biodiversity net gain:** a mechanism through which developers fund landowners and land managers to deliver a long-term uplift in biodiversity, usually of 10% or more.
- **Carbon net zero:** Net zero refers to a state in which the greenhouse gasses going into the atmosphere are balanced by the removal of these gasses from the atmosphere.
- **Green:** A term that refers to something being environmentally friendly or sustainable
- **Green economy:** An economy where economic activity doesn't have a negative impact on the environment and biodiversity. Involves sustainable management of land and natural resources.
- **Green jobs:** Positions in land management and service activities aimed at protecting and restoring environmental quality.
- **Green skills:** knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable, nature-positive and carbon net-zero society.
- **Invasive species:** An animal or plant that harms the environment after being artificially introduced to a place by humans.
- **Natural flood management (NFM):** When natural processes are used to reduce the risk of flooding. Examples include restoring bends in rivers and changing the way land is managed so the soil can absorb more water.
- **Peat/Peatland:** Areas of land which have a naturally accumulated layer of peat soil. Peat soils are formed from carbon-rich, dead, and decaying plant material under waterlogged conditions. Healthy peatland can store far more carbon than an equivalent size of forest – but this stored carbon can also escape if the land is managed badly.
- **Sustainable Urban Drainage System (SUDS):** A collection of water management practices that aim to align modern drainage systems with natural water processes.



A BRIGHTER FUTURE

There is a lot of work to do, but we're motivated to build a better world for today and future generations.

Many people are already leading the way and calling on us to act.

The actions in this plan are just the start. We must go further and faster as we are to meet our target of protecting and improving 30% of land and water in Calderdale for nature by 2030.

**Join us on our journey
to a wilder Calderdale.**



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