

CALDERDALE

CLIMATE

ACTION PLAN 2023-26



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Children playing with an interactive exhibition at Slow the Flow's climate roadshow event at the Piece Hall

OUR PATH TO A BRIGHTER FUTURE

Tackling Climate Change is a challenge all of us will face.

Here in Calderdale, it's a challenge we are ready to tackle.

We've gone through devastating floods and learned a lot about taking action with kindness and resilience.

We learned we need to work urgently, be organised, and create momentum to reach our target of Net Zero by 2038.

It will be here sooner than we think.

THIS PLAN WAS PRODUCED IN CONSULTATION WITH



And many others.

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INTRODUCTION

Climate change is a global issue, but we all have a role to play in protecting our planet.

Since the industrial revolution, the world has increasingly relied on fossil fuels. We burn fossil fuels to warm our homes and workplaces, power our transport and factories, and create electricity. Most things we consume have a carbon (fossil fuel) footprint.

However, we can't continue to burn fossil fuels and live unsustainably. Burning them releases dangerous, planet-warming gases. Fossil fuels have warmed the planet by more than **1°C** above pre-industrial levels and altered the climate.

We can see the impacts of climate change outside our window: our seasons are changing. You may have noticed that in the last decade, flooding in Calderdale has been worse than ever before. Worryingly, this is a pattern that is also being seen across the world. Extreme weather events are on the rise this is a direct result of climate change. **The Intergovernmental Panel on Climate Change (IPCC)** is warning of extreme heat, crop losses and water scarcity across Europe if we don't act soon.

Solving this problem doesn't mean returning to the stone age. Clean energy and technology solutions are just the start. The good news is that tackling climate change will make life better for us and our families.

CALDERDALE'S JOURNEY SO FAR

In 2008, the Climate Change Act became law in the UK. It legally bound the country to reach Net Zero by 2050. A recent update set a legal target of reducing fossil fuel emissions by **78% by 2035**. In a recent report, the **Climate Change Committee (the CCC)** found that the UK Government has firm Net Zero commitments but needs to catch up on the action, speed and pace needed to deliver these.

We want to take control locally to make sure action happens quickly. Lots of work has been happening for years to protect the environment in Calderdale.

In early 2019, Calderdale Council declared a climate emergency. The Council then set the target of achieving Net Zero by 2038 with significant progress by 2030. This is ahead of national targets but is backed by science. Our neighbours in West Yorkshire (Leeds, Wakefield, Kirklees and Bradford), North Yorkshire, and Greater Manchester have set the same target. You can read more about this decision in the **report** on the targets.



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A child scooting to
school on a car-free
street in Rastrick

We have made significant progress and have hit our historic target to reduce CO₂ emissions by 40% by 2020. Together we must go further and faster if we are to leave a stable and habitable world behind for future generations.

One thing is clear: this challenge is not just about avoiding a climate disaster. Actions that lower carbon emissions benefit people to live better lives in a healthier, greener, fairer Calderdale.

OUR PATH TO NET ZERO

In 2021, we commissioned a study that looked at where carbon is coming from in Calderdale and what we need to do to reach Net Zero. This is Calderdale's **Emissions Reduction Pathway (ERP)**. This technical study has allowed us to understand the scale of the challenge and recognise what we, as a borough, and the West Yorkshire region, need to do in the coming years. It provides the foundation for this Climate Action Plan.

The study taught us that it is technically possible for Calderdale to reach close to Net Zero. However, there is no silver bullet. There are instead a range of opportunities that require us to work together to solve complicated problems creatively.

To meet our targets, we need to act fast. That's why this is a three-year Plan: to focus our minds and avoid delay. The more actions we can take sooner, the bigger the effect will be. Climate change is about the build-up of greenhouse gases in our atmosphere which traps heat causing the 'greenhouse gas effect'. The gases can be thought of as a blanket around the earth keeping it hotter than without them. This is why we need to cut more of these emissions, sooner.

Sir David King, the former UK chief scientific advisor said in 2021: "We have to move quickly. What we do over the next three to four years, I believe, is going to determine the future of humanity".

NET ZERO BY 2038

Net Zero refers to a state where the greenhouse gases going into the atmosphere are balanced by their removal out of the atmosphere.

Trees and healthy peat bogs naturally absorb carbon – but at the moment, we burn so many fossil fuels that nature can't keep up. Many peat bogs in Calderdale are emitting carbon as they are badly damaged and are being burnt.

At this stage the focus needs to be on reducing the amount of greenhouse gases we are releasing; this is not just CO₂ but other gases like methane and nitrous oxides. You can imagine Net Zero as being like balancing a set of scales.



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OFFSETTING

Offsetting is a method you can use to tackle more difficult and sometimes unavoidable emissions. We can take carbon out of the atmosphere, for example by tree planting or through technology. However, the technology to do this is in its very early stages and cannot be relied on to stop climate breakdown.

Also offsetting measures may take some time before the expected emissions can be taken out of the atmosphere.

We commit to limiting the use of offsets. If offsetting is used, it must be as local as possible.



WORKING TOGETHER: OUR COMMITMENTS

The Plan is divided into six sections: Community Climate Action, Influencing, Warm and Resilient Buildings, Green Economy, Transport and Getting Around, and Land and Nature. We have written this Plan so you can dip in and out and read the sections that are most interesting to you.

The Climate Action Plan focuses on the actions that will have the biggest impact now and which will unlock the best long-term results. We are committed to a fair transition to Net Zero: no one should be left behind.

We have assembled clear lists of priority actions for the next three years by working together, bringing in essential expertise, and using science to guide us. You can read about the process for producing this Plan, and find out who was involved, in [Appendix 3](#).

These priorities were selected by Calderdale Climate Action Partnership, a group of councillors, community representatives and local experts. You can read more about how this Partnership works in the Influencing section.

We use ‘we’ throughout the document to refer to our actions.

‘We’ refers to all of us in the borough of Calderdale.

The Partnership might not be able to implement all the actions, but it is taking responsibility for making sure that these actions happen. Many actions need funding and finance to accelerate delivery, and people to project manage and maintain work over the long term. This challenge is addressed in our Influencing theme.

CLIMATE ACTION ESSENTIALS

Climate adaptation, climate justice and measuring progress are, we believe, essential to taking climate action and our transition to a Net Zero future. They are outlined below, and we have aimed to incorporate each one into our Plan.

CLIMATE RISK

Climate change is happening now. Beyond our efforts to reduce greenhouse gas emissions there will still be risks and impacts from a changing climate which can leave us vulnerable if not addressed. Reducing risk and being resilient to extreme heat, storms and flooding can be achieved using climate adaptation simultaneously with reducing emissions. Our experiences with climate change impacts of extreme heat and flooding in the UK show that we need adaptation measures in place so we can avoid issues like flooding homes and businesses and public transport cancellations. For example, in 2022 we experienced the risks of extreme heat which caused wildfires, service and infrastructure disruptions and loss of life. Planning for how we can adapt will reduce negative consequences and will be cost-effective in the long run. Climate adaptation is an important part of tackling climate change and must be considered when we take actions.

People have been adapting to their environments for centuries, and in Calderdale we have too - by putting in flood defence measures. Adaptation measures can be anything from planting a tree to provide shade and help with water run-off to building houses which keep us cool. In the UK the Government has a **National Adaptation Programme (NAP)** which includes actions the Government and other organisations like the Environment Agency can take to adapt to future impacts so we can keep going about our daily lives undisrupted.

Climate adaptation and resilience are referenced within our Action Plan, but this is not a comprehensive list. There will be work and actions outside of this Plan that we will need to play our part in. In our Influencing theme we set out actions needed and ask others to develop climate adaptation plans too.

Climate adaptation and resilience can look like the following:

- Energy resilience (transmission, distribution, and generation)
- Resilient communities (prepared communities, flood wardens and hubs, protection of cultural heritage, and public health from changes in weather)
- Resilient homes (prevent overheating and flooding)



Flood wardens provide support to communities in Calderdale that are at risk of flooding

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- Green jobs for a changing economy
- Resilient businesses (commercial spaces resilient to overheating and flooding, IT systems, suitable workers' conditions)
- Green streets (planting and maintaining trees, plants, and sustainable urban drainage systems)
- Resilient roads and public transport infrastructure
- Natural flood management
- Animals and nature thriving
- Healthy soil and diverse habitats
- Food security

CLIMATE JUSTICE

Climate change has unequal and uneven impacts on people, communities, and countries across the globe. Its impacts will be felt differently across society and the interaction between issues like equality and poverty. In many cases, the people and communities with the smallest carbon footprint are impacted most by climate change. This is where the idea of climate justice comes in. Climate justice is about looking at how these impacts will affect different people and addressing this in a fair and equal way. It is about being inclusive of all groups and all people. The idea of climate justice builds upon years of environmental justice movements that have focused on issues like air quality and access to clean water.

Climate justice is about understanding the importance of peoples' and communities' voices in how adapting and tackling climate change can impact them. It goes beyond viewing climate as only an environmental issue and thinks about how it is also a social and political one.

Climate justice is a local issue; our experiences can differ from our neighbours, friends, and family. But it is also a global issue between countries as countries across the world have different risks and vulnerabilities. Global climate justice is about recognising that those countries who have historically contributed the least in the acceleration of climate change will feel the worst of its effects, such as extreme heat, flooding, loss of land and people needing to leave their homes becoming climate refugees.

In this Plan, we talk about leaving no one behind. This applies to all the actions set out in this Plan as we aim to use the ideals of climate justice to ensure we are transitioning to a Net Zero future in a way that works for everyone.

MEASURING PROGRESS

How do we know we are on our way to Net Zero? We monitor our greenhouse gas emissions each year. We will continue to do this and report the borough's emissions in our annual review. We will monitor our progress against a range of pathways to Net Zero. You can read more about this in [Appendix 2.1](#).

The best greenhouse gas emissions data comes from national datasets. These data sets don't always pick up on the full story of our local efforts. We are developing a set of local metrics throughout this Plan. Once they are ready, we will update these numbers annually and display them on the [Dataworks](#) climate dashboard so everyone can see the impact of our collective work.

START TODAY: WHAT YOU CAN DO?

We want every individual, community group or business to use their unique skills most effectively. We aim to inspire action and help you to understand where best to put your time, energy, and passion. Throughout the Action Plan there are ideas on actions you can take.

You will also see examples of climate action around Calderdale – to show you that we are already making progress. The transition to Net Zero is already happening. Let's work together to build a brighter future.



Lots of work is already
happening across Calderdale
to tackle climate change

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INFLUENCING

Our voices and actions are always stronger together. It is important that we hear a range of voices to influence a change that creates a fairer and more equitable place for everyone. Influencing outlines the responsibility that the Climate Action Partnership will take to create a bigger change because we work together.

As a Partnership we will work with everyone. From our communities to local businesses to our voluntary sector. We want to make sure everyone has the right tools to tackle the climate emergency and can help to make Calderdale a great place to live.”.

We are confident about the impact we can all have to reduce carbon emissions and tackle the big problems in our day-to-day lives: equality, the cost of living, health and wellbeing, and food security.

CALDERDALE'S CLIMATE ACTION PARTNERSHIP

Calderdale's Climate Action Partnership will ensure that the actions outlined in this Plan get done. We want to be clear on how this group runs and be open about the decisions that we make.

The Partnership is a group of elected local Councillors from all political parties, members of the Youth Council, community groups, the NHS, housing and third sector representatives. We have **recently reviewed how this Partnership works**, to make sure its impact is as wide as possible.

The Partnership's role:

- Influence and collaborate
- Be leaders in our sectors and specialisms by advocating and demonstrating change
- Develop, review, and update our Action Plan for years to come
- Set targets, gather better data, and monitor progress
- Have open, transparent discussions about progress, challenges, and opportunities, and vote on key decisions
- Make sure actions get done by the person or people best placed to do them

We will do this by:

- Producing an Influencing Strategy in 2024 or sooner
- Releasing our first yearly review of the Action Plan in 2024
- Producing 6 thematic delivery plans by 2024 or sooner
- Share our own climate stories for transparency and learning
- Develop climate adaptation plans
- Ask peers to review our progress regularly
- Publish meetings and minutes publicly
- Review membership on a yearly basis

WORKING TOGETHER

The Partnership will develop delivery task groups for each theme within our Climate Action Plan. These groups will focus each theme's actions and discuss collectively how we can work together to get these done. Please visit this [website](#) for information on how to get involved.

We will aim to develop delivery plans for each theme's task groups by 2024.

LOCAL ACTION: YOUTH VOICE

Youth Council members have been part of the Climate Action Partnership since 2019. Their voice is important. Youth Council are active leaders in climate action, from forming the West Yorkshire Regional Youth Climate Assembly to speaking at **COP26**. Calderdale Youth Council have also developed the **ACE Awards** to encourage schools to take more climate action.



Calderdale's Youth Council
are important members
of the Climate Action
Partnership

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VISION

You will see throughout this Plan that a lot of incredible action is already happening. Reading about progress can ease climate anxiety and knowing where we fall behind can help us focus on action.

WORKING TOGETHER

A key action is positioning the Climate Action Partnership to be multi-owned and visible in 2023. We want to be leaders in taking climate action and sharing innovation and stories.

We will regularly publish our progress: we have committed to yearly progress reports but will also use tools like social media, newsletters and press releases to update you more frequently.

We will use different communication methods to engage people and show people what good climate action looks like including: videos, photography, infographics, and local events.

START TODAY

You can [sign up](#) for our new climate emergency e-newsletter, which will provide further details and updates on the Climate Action Plan. The first newsletter was released in 2022.

We consulted widely to create this **Climate Action Plan**. But reaching out and getting your ideas can't stop there. We will set up a mechanism where you can input your thoughts and make sure there is a system for feeding back to you, so you know you are being listened to.

You can also download and share the **Calderdale Net Zero** branding and communication materials which will help spread the word.

COLLABORATING

We can't make this Action Plan happen without people working out the details, starting projects, and securing funding. We recognise this challenge, and finding resources is a crucial action. We know that the actions outlined in the Plan will have long-term financial benefits: we see it as an investment in the borough's future.

The West Yorkshire Mayor has a role too. Other regional bodies like the Yorkshire and Humber Climate Commission can also help bring people together and support action. Our Influencing Strategy will clarify Calderdale's asks of regional and national partners.

WORKING TOGETHER

Here in Calderdale, we know how to collaborate locally and there is a huge range of talent to call upon. We know that reaching out and including everyone can create meaningful change to be proud of. We want a fair and inclusive transition to a Net Zero future to make sure everyone is on the journey with us.

Calderdale is in an excellent position in West Yorkshire: connecting Greater Manchester to Yorkshire. We will work with our neighbouring boroughs to call for urgent action.

We will be clear on what we need and create a strong influencing voice to make change happen.

Throughout this Plan, you will see key areas that we want to influence. Some examples of these are:

- **Renewable energy:** Influencing National Government to ensure communities can benefit from local energy production.
- **Transport:** 70% of the decisions on transport policy are nationally controlled. Making sure our buses and rail function properly will mean action from the West Yorkshire Combined Authority and National Government.
- **Natural Flood Management (NFM):** NFM must happen on a large scale to have a big impact. This means national action and funding.
- **Building standards:** This is something that is difficult to raise locally so we need to work regionally and nationally to make it happen.
- **Resources:** (financial, jobs, advice) are needed to deliver and play our part in the Plan. We must find funding and investment.

Calderdale's **Emissions Reduction Pathway** is very clear that although there is a lot we can do locally, serious action needs to come from the Government. Our job is to work with and influence others to act.

START TODAY

We are all influencers: when we adopt low carbon behaviours or talk about climate change, we influence others to change. You can also write to your MP to get your voice heard on climate action.



West Yorkshire Mayor, Tracy Brabin, congratulating graduates from Todmorden's Climate Challenge College

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MAKING CLIMATE ACTION PART OF EVERYTHING WE DO

The Climate Action Partnership is a group of organisations from across Calderdale. The impact we can have together is broader than the actions in this Plan. We need to make sure everyone is on the same page within our Partnership and networks.

WORKING TOGETHER

To make climate action part of everything we do, we have created **a list of actions** that members of the Climate Action Partnership will aim towards. Could your organisation do the same?

- Consider climate impacts and risks in decision making
- Calculate a carbon footprint
- Make sure climate action is part of procurement processes
- Join up plans and strategies
- Communicate widely about taking climate action, including training staff
- Decarbonise fleet vehicles and staff travel
- Implementing low carbon food policies
- Understand climate risks and adaptation

START TODAY

You can also take steps to make climate action part of everything you do:

The Carbon Literacy project offers climate training – their website lists both free and paid courses.

Explore what climate change will look like near you.

Get your school accredited with Calderdale's Youth Council ACE Award (Advocates for the Climate and Environment) to not only reduce your schools' carbon emissions but also to have a lasting positive impact on our planet.

LOCAL ACTION: CALDERDALE COUNCIL

Tackling the climate emergency is one of Calderdale Council's three key priorities and they are working hard to embed climate action into everything they do.

The Council is quickly decarbonising public buildings and its fleet, and they have been training staff on climate literacy and action since 2019.



LOCAL ACTION: TOGETHER HOUSING

Together Housing is a social housing provider in Calderdale and across the North of England. They have an ambitious programme to invest hundreds of millions of pounds into creating low carbon homes in the next decade. Together Housing has the following ambitions:

- Move away from heating based on fossil fuels – and totally away by 2035
- Use its homes to generate up to 50 megawatts of renewable power generation capacity
- Ensure all homes are EPC level C and above by 2030
- Ensure all their newbuild homes are rated EPC level A by 2030
- Reduce its waste and cut down on vehicle mileage
- Achieve a 50% reduction in carbon impacts by 2030



Calderdale Council's fleet of electric vehicles will cut carbon emissions

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LOCAL ACTION: SUMA WHOLEFOODS

Suma Wholefoods launched their **Sustainability Strategy** in 2023. The Calderdale-based co-op has 300 workers and distributes vegetarian and sustainable products to businesses and communities across the UK and internationally. They have already taken steps to reduce their environmental impact including:

- Volunteering and partnering with local tree planting organisations to help prevent flooding in their local area
- Purchasing trucks fuelled by bio-gas made from food waste which results in 84% fewer emissions than the diesel equivalent
- Using 100% renewable energy sources for their own operations
- Reducing packaging waste and plastic use wherever possible

Their new Sustainability Strategy addresses several key areas, including carbon emissions, supporting local suppliers and organic agriculture, and promoting Fair Trade and B-Corp practices. Specific targets in the Strategy include becoming a Net Zero business by 2035 and ensuring all products they stock have at least one form of ethical verification by 2030.

COMMUNITY CLIMATE ACTION

Action needs to happen on all levels, from the Government to individuals. This way, we can prevent damage to our infrastructure, heritage, and health caused by extreme weather events and protect our communities by providing them with the means to tackle and adapt to a changing climate. Everyone can take action to tackle the climate emergency; working together is a great way to have a much bigger impact. Many community groups in Calderdale are already leading the way on climate action: creating a sense of belonging, showing what's possible and supporting each other to help ideas to grow.

A community group can be anything from a resident's association to a group of campaigners. Being a part of a community supports people to do work they value and to make a difference in their neighbourhood. Membership in any group can be formal or informal. Community climate action groups are people coming together to pool their skills and collectively act on climate change issues locally and beyond.

Community climate action can help bring people together to consider different ways of living, to find solutions to other common issues many are facing such as social isolation. Joined-up thinking and action at the community level can also ensure that everyone's voices are heard, which means the needs of those people experiencing significant challenges in their life will be identified and hopefully addressed.

GREEN COMMUNITY ADVICE HUBS

This document contains lots of sources of help and support for people looking to take action. However, we recognise that the number of suggestions and different advice providers can be overwhelming. It is important that people can get honest, factual advice from someone local who they trust and can go back to if they have further questions.

WORKING TOGETHER

Whether online, on the phone, or on the high-street,

we aim to launch green community advice hubs across Calderdale, launching the first one in 2024.



Young people from
Calderdale's Loving Every
Minute group enjoying
time outdoors

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Mum and daughter leave the car at home to reduce their carbon footprint

Our Themes and Key Actions - Community Climate Action

We will work across our trusted networks to agree on how this is best delivered for Calderdale's varied towns and communities, ensuring the hubs support as many people as possible. This will also help us build local expertise and cascade knowledge across the borough.

This will be a bottom-up process and will respond to the needs of the people who walk through the door. The advice hubs will raise awareness around common issues relevant to everyone such as making houses warmer and more energy efficient. The hubs will develop outreach activities to ensure all groups can access the information and advice available.

START TODAY

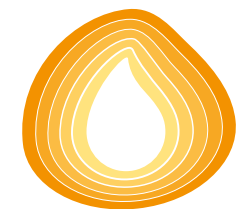
There is already some great advice out there to help you take climate action in your community:

- **Energy Saving Trust** can help you work out how to decarbonise your home
- **Green Calderdale** has advice on campaigning, volunteering and local events and news
- **Eye on Calderdale** has advice on how to help reduce flooding in Calderdale
- **Zero Carbon Yorkshire** provides support for people, groups, and organisations in the region to reduce their carbon footprints
- **3 Valley Vegans** provides advice on dietary change to reduce greenhouse gas emissions

LOCAL ACTION: CALDERDALE INTERFAITH COUNCIL

Community groups are already a great source of advice and learning. Calderdale's Interfaith Council held a climate emergency conference in 2021.

Different faith communities explored why climate action is important for their faith. They also shared and learned from each other about the climate action they are taking.



**CALDERDALE
INTERFAITH**

SPREADING THE WORD

Local surveys tell us that around 80% of people are concerned about climate change. Citizens assemblies, like the **Climate Assembly UK**, show us that when people are informed about the causes and solutions of the climate emergency and can explore solutions with others, they want to see change happen and often get involved in creating that change.

We will be asking people in Calderdale to do things differently, but we are aware that not everyone has equal opportunities to make these changes which is where our community advice hubs come in. The hubs will be unique and specialised based on what each community tells us they need support with. Our Influencing work will also be able to communicate the needs of communities where help is needed from beyond the Partnership, for example advocating for integrated public transport systems with the aim of subsidised fares for people on low incomes.

WORKING TOGETHER

We want to spread the message of building a brighter Zero Carbon Calderdale to as many people as possible. This is important to Calderdale's citizens because we want people to live healthier, more connected lives in thriving places.

We can and should learn from the lessons of coronavirus where we worked with a range of community leaders to reach many different people. A big priority is meeting people, and working with our incredible artistic, cultural, voluntary, and business networks to use their talents to help spread the message about the climate emergency.

We will inform people about Calderdale's Climate Action Plan and the many ways they can be involved.

The Partnership will develop a plan to spread the word, including a yearly event to celebrate the climate successes of Calderdale's communities and advise how everyone can become involved in further action.

Our Climate Action Plan aims to work with everybody across Calderdale. However, to make this more manageable we aim to prioritise different groups in different phases of the Plan's implementation.

In the first phase

we will prioritise children and young people (generally, schools, colleges, and internships).



Mum and son getting off a train together at Hebden Bridge railway station

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We understand that children and young people play a significant role in actively promoting awareness within their families and networks.

We will also prioritise communities living on low incomes and experiencing poverty and inequality.

These communities are likely to face the brunt of climate change and it is important that their needs are addressed in all aspects of our Climate Action Plan.

LOCAL ACTION: SAND IN YOUR EYE

With the help of local school children, Calderdale's **Sand in Your Eye** created a 60-metre portrait of **Greta Thunberg** to celebrate International Women's Day 2020.

In 2020, their annual pumpkin trail featured a wide array of **climate-themed pumpkin carvings**. And **again in 2022**, there was also 'Welcome to Hebden Bridge 2084' looking from the future at all we did to tackle climate change.

What an inventive way to spread the word!



BUILDING SUSTAINABLE LIVES

A considerable proportion of our emissions come from what we buy and eat. These emissions are usually released outside of Calderdale. For example, our food is typically from farms elsewhere in the UK or abroad, which produce greenhouse gasses from fertilisers and animals like sheep and cows.

Many things we buy are made in factories abroad, for example in China or the United States of America. There is a debate about who should be responsible for those emissions – but we know we can influence them.

Tackling these emissions is complex. Getting to Net Zero means that the factories and farms we buy things from, and companies who transport goods around, need to stop using fossil fuels. If we can buy things that last longer, we buy less. We also really need to produce less waste by getting rid of unnecessary packaging and reusing and recycling what's left. Everyone needs easy access to affordable, sustainable options that suit their families and routines.

WORKING TOGETHER

Sustainable choices need to be easy, affordable and enjoyable. These ideas are already growing; apps like [Olio](#) and [Too Good To Go](#) help neighbours share and reduce food waste. There is fantastic support for local food growing and allotments, and campaigns like [Veganuary](#) and [Clean Air Day](#) encourage people to try sustainable diets and transport. Repair Cafes are popping up around Calderdale, with one in [Heptonstall](#), [Mytholmroyd](#) and [Todmorden](#), to match repair skills to broken things.

We will develop a green database that allows people to find more affordable and accessible sustainable choices.

We will help people to explore options for sharing resources within the community such as car clubs like [Hour Car](#) and tool sharing similar to [Todmorden College](#). We will also help people to explore options around recycling items and clothing to demonstrate how climate action and money saving go hand in hand.

We will build on this momentum and develop ways to help people live sustainably, including what we eat and buy.

We will develop better data and clarity on these indirect carbon and other greenhouse gas emissions as soon as possible to understand the impact of our choices, and how the systems around us influence them.



The Outback Community Kitchen and Garden have a community beehive and produce their own honey

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LOCAL ACTION: CALDERDALE FOOD NETWORK

Food is such an important part of our lives – it plays a big part in celebrating significant events and connecting with family and friends. To achieve Net Zero, we need to change how we eat which will also be likely to make us healthier.

Calderdale Food Network is working hard to make sure healthy, affordable, sustainable, local food is accessible to all. This includes improving access to local food growing, reducing meat and dairy and making sure that school food has the nutrients to help kids grow.

We are currently bronze level of the Sustainable Food Places Award and will aim to move to silver by 2023 and gold by 2026 or sooner.



START TODAY

Want to make a difference? **BBC Bitesize** has some ideas for families, 9-13 and 14+ years old on how you can be green.

COMMUNITIES TAKING ACTION

How can we support communities to play their part in making a lasting change? Calderdale is already fortunate to have a vibrant community sector with many groups and organisations taking innovative climate action.

WORKING TOGETHER

Calderdale Council and **Community Foundation for Calderdale** have invested in a £1 million Climate Emergency Fund to help communities to run climate action projects.

As well as this, we want to employ a dedicated community support worker who will work with groups to encourage, facilitate, and support community climate projects. We will do this by 2024.

We also want to work with existing community networks that already work well to support local ideas and bring in expertise and resources, so they can have even more of an impact. Working with these networks, we can reach more people, and help communities take the action that works best for them. We aim to work with networks representing everyone in each area of Calderdale.

We aim to develop a climate action support infrastructure that enables people to be aware, empowered and involved including people facing financial and other barriers.

We aim to develop an inclusive climate champion programme ensuring that people from a range of different backgrounds can become community climate champions. A climate champion is someone from each community who will work with the support officer to provide climate awareness and training to their community.

We will measure progress by monitoring the number of climate-related groups in the borough, the number of people involved in community climate projects and the impact of these.

LOCAL ACTION: INCREDIBLE EDIBLE

Incredible Edible started as a community food growing project in Calderdale, now a global movement. They help communities become more connected through the power of local food growing.

To support this, Calderdale Council created a **community growing licence** allowing local groups, neighbours or individuals to turn Council-owned land into allotments. Learn more about the community growing licence or **check the map** to see areas where you can start an allotment.



START TODAY

Check out **VSI Alliance**, **Voluntary Action Calderdale** or **Community Foundation for Calderdale** to learn about projects you could get involved in and to find support to help you take ideas further.

Have you heard of **Climate Cafés**? It's a space which allows people to come together to chat about all things climate change. Could you organise one in your local community? Could your school, college, or sixth form trial a Climate Café?



Calderdale countryside volunteers growing sphagnum moss as part of the Growing Resilience project

ZERO
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NEIGHBOURHOOD CLIMATE ACTION PLANS

Taking time to reflect and put together a plan helps to focus action, and the different neighbourhoods in Calderdale have different climate challenges and opportunities. Neighbourhood climate action plans can help you and your community figure out what carbon reduction and climate resilience solutions work for you. We already have two Town Council-owned climate action plans, but this doesn't mean that's the only way. In Calderdale, our towns and neighbourhoods have distinct identities, and people in those neighbourhoods have important ideas about what needs to happen.

WORKING TOGETHER

We will work with communities to develop neighbourhood climate action plans.

We will ensure that different parts of each community are represented and will participate in developing their plan. We will provide the appropriate support to ensure that people with challenging lives are able to participate in the process.

The neighbourhood climate action plans will help identify challenges unique to each community and work with residents to find solutions.

We will measure our success by the number of neighbourhood climate action plans agreed upon and implemented across the borough.

We want to have 13 neighbourhood climate action plans in place or in development by 2026.

LOCAL ACTION: HEBDEN ROYD TOWN

In 2020, Hebden Royd Town Council produced their **first local Climate Action Plan** that set out the action they would take to help tackle the climate emergency locally. It has since been updated and they successfully sourced funding for a Climate Emergency and Biodiversity Coordinator who is helping tackle the climate emergency.

Calderdale Council funded the Mytholmroyd Climate Group E-bike'um" e-bike festival as part of the plan. The community had the chance to try out electric bicycles free of charge on a traffic-free section of Cragg Road, the longest continuous ascent in the country. The power of community action!



WARM AND RESILIENT BUILDINGS

51% of Calderdale's emissions come from our buildings^{1*}. Our heating systems are a big part of the problem – we mostly use fossil-fuel gas boilers. Due to the age of many of our buildings and homes in Calderdale, they often have low levels of insulation, which means that buildings can be draughty and expensive to run. Solid walls often found in older homes mean that modern insulation technologies are challenging to install, and so heat cannot be efficiently trapped in the property.

Every home in the borough needs to be warm, resilient, and low carbon. This can only happen if we work hard and quickly to insulate thousands of homes by 2038 and move away from gas boilers to technology like heat pumps and district heating. Investment in home energy efficiency is urgent and has many benefits: affordable heating, job creation and improved health and wellbeing for example.

RETROFITTING OUR BUILDINGS

Getting every building in the borough to an Energy Performance Certificate (EPC) rating of C or above is a huge challenge. Many of our homes leak heat because they were built when heating worked differently, when gas was cheaper and before we understood the impact of burning fossil fuels.

Overcoming this challenge will mean our homes and workplaces are comfortable in cold winters and hot summers. It will also mean we will use less energy to stay warm and save money on heating. Good insulation also keeps noise levels down indoors. All of these things can help us to take positive steps to tackle fuel poverty.

It's important for equality within Calderdale and our health too. Living in a warm home help prevents avoidable impacts on mental and physical health and wellbeing. The issue costs the **NHS about £1.36 billion** a year in preventable illnesses.

With 69,000¹ homes to retrofit by 2038 to reach Net Zero, it's clear a one-size-fits-all approach won't work.

WORKING TOGETHER

The Climate Action Partnership will develop a fair retrofit strategy covering the range of building types and tenures across the borough. We will start this strategy in 2023.



Hope Baptist Church installed a series of energy efficiency measures with funding from Calderdale's Climate Emergency Fund

ZERO
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RETROFIT

Making changes to existing buildings, such as adding insulation and renewable energy, so that energy consumption and carbon emissions are reduced.

These changes also provide the benefit of a more comfortable and healthier home with lower fuel bills.



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Our Themes and Key Actions - Warm and Resilient Buildings

It will look at the issues people face with affordable heat to find solutions that do not further fuel poverty or leave anyone behind. The strategy will also make sure retrofit measures implemented across Calderdale are installed to a high quality that keeps homes warm and ensures good ventilation to maintain healthy air. It is not limited to homes: we are decarbonising many public buildings, such as Todmorden Sports Centre. We are working out how to make sure schools across the borough are warm and resilient.

We will measure our success by increasing the number of homes and buildings with an EPC rating of C or higher. Calderdale's **Emission Reduction Pathway**¹ tells us that we should aim to reach a retrofit rate of 2,800 homes per year by 2025 – but to achieve this, there needs to be a commitment from all stakeholders, including landlords and homeowners. You can help by **updating your home's EPC rating** to understand better how efficient your home is.

To deliver our retrofit goals we will develop an Investment Strategy to look at the public, private and match funding available. We will produce an Investment Strategy by 2024.

In the Green Economy section, you can also read about how we plan to grow local business skills and capacity to deliver the work needed. This will involve working with colleges and local businesses to develop a new skilled workforce and supply chains, install and maintain new insulation, heating and ventilation systems and introduce new construction techniques. There will be a role for projects commissioned by members of the Climate Action Partnership to build the demand for these new ways of working, while demand develops in the private sector.

START TODAY

Calderdale's beautiful stone buildings will be a challenge to decarbonise and make up 50% of Calderdale's homes. If you own a home with solid walls, you could consider doing internal wall insulation on a room-by-room basis. It will limit the impact of disruption, spread the cost and could be done when decorating.

You can help by getting an up-to-date EPC rating. **[This open data website](#)** lets you learn more about EPC's across the borough

You can also install smart metres in your homes providing access to your energy usage data which could help inform retrofitting decisions. **[Citizens Advice](#)** has information available.

LOCAL ACTION: WOMEN CENTRE RETROFIT

WomenCentre successfully bid for funding from the Community Foundation for Calderdale £1 million Climate Emergency Fund. They want to get their Halifax building to Net Zero and are starting by replacing windows and lighting.

The three-storey building is currently EPC D and can be cold and draughty. This building provides a vital service to the community so it's important that it is as warm and resilient as possible.



TRUSTED ADVICE

We can do a lot to lower our home's carbon footprint. There are simple energy efficiency actions such as turning the heating down, installing heating controls and buying energy-efficient appliances. The **Energy Saving Trust** has lots of great advice.

WORKING TOGETHER

As insulating your home is a big decision, having a trusted and independent expert to talk to is important.

We will make sure our green local advice hubs - introduced in our Community Climate Action section - are equipped with independent and trusted expertise on home retrofit and finance solutions. We want to build a directory of local tradespeople with the right skills.

We will measure the success of this service by an increase in EPC ratings in all types of properties.

Our long-term action is to improve costs for currently expensive solutions like solid wall insulation and shared ground and air source heat pumps.



We're building a directory of local tradespeople to help people to decarbonise their homes affordably

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START TODAY

In the meantime, **Simple Energy Advice** provides impartial and independent advice on retrofit and you might find you are eligible for a home improvement grant. There are grants for both owned and rented homes. Speaking to your landlord is a good first step if you're a tenant. Homeowners can speak to their mortgage holders to find out if they can help you finance improvements.

LOCAL ACTION: GREEN HOMES GRANT

From 2019 to the present, Calderdale Council has secured almost £8m in Green Homes Grant Local Authority Delivery Funding from the now Government Department for Energy Security and Net Zero to make homes more energy efficient. Most of the work has made improvements to the fabric of the homes with insulation to reduce heat loss and carbon emissions.

Over 630 low-income households have benefited from various works carried out through the scheme including 'room in roof', loft and underfloor insulation. The estimated savings on residents' combined energy bills is almost £250,000 per year. So far, the scheme is forecast to save over 56,000 tonnes of CO₂ over the 42-year lifespan of the insulation work.

Phase 3 of the Green Homes Grant will end in October 2023 when the final scheme outputs will be calculated.

Calderdale Council has also secured an additional £4.14m grant through the Government's Home Upgrade Grant Phase 2. This will install insulation and clean heating upgrades in low-income households off the gas network (or using other fuel for their main space heating). The first installs are due to be completed by the end of the year, with the scheme running through to March 2025.



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Energy efficiency measures
were installed in homes
through the Beech Hill
regeneration scheme

BUILDING SUCCESS

Although much of the technology that will get us to Net Zero is already here, there is still work to do to deliver it at the scale and pace needed. We want to demonstrate that it can be done in a way that works for Calderdale.

WORKING TOGETHER

Before 2026, we will start piloting visible and innovative ways of decarbonising homes so we can build the skills needed locally and so people can see what this looks like. We aim to find the necessary financial mechanisms to plan a whole street retrofit by 2023.

START TODAY

We will also support communities to develop solutions in their neighbourhoods. Could you share your knowledge and skills? Would you be interested in a whole street retrofit project? Ambitious community drives can reduce the price of materials and labour and encourage local businesses to get involved and provide solutions. **Carbon co-op** is a great place to learn more about this approach.

LOCAL ACTION: NEWGROUND TOGETHER, CHARITABLE ARM OF TOGETHER HOUSING GROUP

Newground Together is working alongside Halifax Opportunities Trust and WomenCentre to deliver **Greener Together**. Funded by West Yorkshire Combined Authority and Together Housing Group. As part of the plan to deliver green homes, the Greener Together project is focused on green spaces, places, and futures in Calderdale communities. They plan to reach 1,000 people: helping people to work and equipping them with valuable green skills. They will be using a retrofit demonstrator house as a pop-up community learning space that shows people how simple it is to live with new tech. It also helps both residents and professionals get to grips with the technology.

Watch out: they're delivering community activities too, forming an army of Green Warriors to spread the message!



Construction work taking place at Todmorden Sports Centre to replace existing gas boilers with air source heat pumps

ZERO
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LOW CARBON NEW HOMES

If homes and buildings being built right now aren't zero carbon ready, they will need to be retrofitted before 2038. We don't want to make our retrofit to-do list even longer – we want to get it right the first time.

The homes being built now must be zero carbon ready, with the highest enforceable standards of efficiency: well insulated and ventilated, free from draughts and with roofs designed to maximise the opportunity for solar electricity and hot water systems. They also need to have low-carbon heating and be built to protect us from extreme weather, like heatwaves.

We know from experience that insulating a home while it's being built costs significantly less than retrofitting it later. It is unfair to load that cost and inconvenience onto the purchasers of these homes. As people learn more about the climate emergency, green homes will become more attractive to buyers looking at what utility bills will cost them each year.

We are also aware of the need for new homes in the current housing crisis: we need to face the challenge of producing enough low carbon new homes to meet demand.

WORKING TOGETHER

Calderdale Council's planning department has a key role to play.

We will work and influence to ensure that zero carbon homes and neighbourhoods become the standard in Calderdale and are built to protect us from extreme weather.

We want to see an increase in zero carbon-ready new homes built across Calderdale.

The Climate Action Partnership will also work with the whole supply chain to make sure new buildings, retrofits and extensions are climate resilient and energy efficient, and that their construction has a low environmental impact. We will influence for new builds to be carbon positive by 2026 or sooner.

Our Investment Strategy will look at how builders can go green and provide the zero carbon properties people are looking for.

START TODAY

You can learn more about sustainable building best practices from the [AECB](#). If you are buying a new home, let your estate agent or the developer know that energy efficiency and climate change are important to you.



ZERO
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A home with solar panels
on the roof

LOCAL ACTION: CALDERDALE'S FIRST PASSIVHAUS

After their children had grown up Graham Joyce and Sally Hinton looked to move house and build a low energy home to settle in. They built the first certified **Passivhaus** in Calderdale

Passivhaus has a strict certification scheme, so the house is highly insulated and airtight including triple glazing, and a mechanical ventilation system makes sure the air is kept fresh. Solar panels provide electricity and an air source heat pump heats the water.

Through clever design, which makes sure the rooms get lots of warmth from the sun, the whole house is heated by only two electric radiators downstairs. You can read more about how they did it on the **[Green Buildings Store website](#)**.



RESILIENT BUILDINGS

In the changing climate, we need to protect our homes and businesses from climate risks such as extreme weather events which can cause power cuts and supply issues, risks to clean water, and damage to the inside and outside fabric of our homes. Floods that should be happening once in 50 or 100 years are now happening more frequently, and heatwaves are becoming more intense.

WORKING TOGETHER

We need to ensure our homes are equipped for hotter summers this means new homes need to be designed to keep cool, for example they could include window shades, natural ventilation, and solar control glazing. Heat pumps can also provide cooling in the summer, but good design should always be the first choice to reduce energy use.

We will look to offer flood resilience grants to buildings that are vulnerable to flooding. We will measure this by the number of properties in flood prone areas with flood resilience measures.



We need to protect our homes and buildings from extreme weather events

ZERO
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START TODAY

Eye on Calderdale has great advice on preparing for, responding to, and recovering from flooding. It has information on grants you can apply for if your home or business is vulnerable to flooding.

LOCAL ACTION: THE BLUE TEAPOT

Only months after setting up a dramatic flood hit Lisa's café - the Blue Teapot in Mytholmroyd. She worked - along with help from local people - for 16 hours a day, 7 days a week for 6 weeks to get it back up and running. Not only did she give the café a new look, but she also made it more flood resilient. This involved sockets high above where water could rise, treated bricks and a counter that could be wheeled to higher ground when there is a flood warning.

You can learn more about the Blue Teapot's flood resilience measures in this [3D tour](#).



GREEN ECONOMY

Net Zero is all about looking ahead. It's about making the most of our strengths and planning to ensure that Calderdale's future economy is inclusive, resilient, clean and green. Our economy relies on stable and healthy infrastructure networks. Supply chains, distribution networks, finance, investment, and insurance as well as transport, energy, and ICT systems can be endangered and disrupted by unpredictable and extreme weather events. Importantly when we talk about the economy we're also talking about people and the right to have a fair, equitable economy with good opportunities for all people and generations to come. We must continue to build people's skills and employability so that Calderdale can thrive in the long term.

Calderdale has an incredible variety of enterprising people who can play their part in their own unique way – from innovative sole traders, co-ops and community interest companies to our varied mix of small to medium enterprises. We have business leaders in several sectors who can show us what a green future looks like. The public sector is part of the economy too – it is a key purchaser of goods and services. The public sector can help to enable the Net Zero transition by using social value and corporate responsibility to influence others and demonstrating green practices in their business operations.

This is a big area of activity across the UK: the **Government has set the ambition** of supporting the creation of two million green jobs by 2030. Local action is critical to reaching Net Zero and making the most of the opportunity in Calderdale.

OUR JOURNEY TO NET ZERO

The journey to Net Zero creates exciting new sectors and invigorates existing ones. From **Calderdale's Emission Reduction Pathway**¹ and the rest of the Plan, you will see that we need to:

- Retrofit 69,000 homes by 2038
- Invest in electricity infrastructure so it can cope with a 51% higher demand

That's just the beginning. We need thousands of skilled people and businesses to deliver transformation at a scale never seen before and to maintain it in the long run. You can read in the rest of this Plan the vast benefits of this work for the borough, and how we plan to get work started.



Local business, Just Gaia,
sells plastic-free goods to
help people lower their
carbon footprint

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WORKING TOGETHER

To ensure businesses in Calderdale can make the most of this opportunity, the Climate Action Partnership will continue building relationships with employers essential to delivering the transition to a low-carbon economy.

Existing business hubs and networks will help, providing places where businesses can share experiences and learning. Better relationships will help us sharpen what we do together and ensure it makes the most impact.

Green Economy is a cross-cutting area which will support and enable other areas of this Action Plan to be delivered (such as retrofit work and switching to renewable energy). Being clear about the changes coming will help us to understand demand and future skills needs.

We will identify how we can invest in the success of these areas within Calderdale, for example by creating local job opportunities with partners and projects we can influence. We will work to help create customer bases to give businesses the security to expand and innovate.

GREEN JOBS AND SKILLS

At the moment, there is a shortage of the kind of skills we need to move to Net Zero. This is an opportunity: estimates show that West Yorkshire has the potential to create 40,000 new, high-skilled green jobs by 2030.

Action in this area means opportunities for upskilling or changing careers and new career pathways for young people. We must make sure that no one is left behind and that everyone has fair access to these opportunities. Whilst ensuring that those people working in fossil fuel sectors will have access to training to reskill.

This is a key focus for the Mayor of West Yorkshire who has created a Green Jobs Taskforce and pledged to create well-paid, green, skilled jobs. A new West Yorkshire Local Skills Improvement Plan will support this ambition. The taskforce will inspire, facilitate, embed, enable, support and strengthen work whilst delivering ambitious targets for equality, diversity and inclusion.

A focus locally will be to use the wider employment, Skills Strategy and Framework and post-16 education to help fill these gaps. Calderdale businesses, colleges and the Chamber of Commerce are looking at future skills needs. We must link up work and work together to fill gaps.



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A student taking part
in a course to develop
green skills

WORKING TOGETHER

A key priority is building accurate, knowledge-based links between the Climate Action Partnership, education and businesses. Locally, we will work with education and career support providers on green skills.

We are already creating the courses and apprenticeships needed to upskill at the scale and pace needed for the transformation ahead.

We will encourage these green jobs providers and local employers to get out into the schools and inspire young people about the range of work and careers that will be a huge part of the future.

Our local [Employment Hub](#) will help.

Reskilling and upskilling those already in employment is also important; to enable everyone to play a part in the green transition and embrace opportunities - especially those working in sectors heavily reliant on fossil fuels.

Making green jobs and sectors visible and accessible will have a huge impact in showing people what is possible and give them hope.

One measure of success will be an increase in training courses offering green skills across Calderdale.

START TODAY

You can learn about retrofit skills at [The Retrofit Academy](#).

LOCAL ACTION: CALDERDALE COLLEGE

Sustainability is a key priority for the college. They are developing courses in retrofit, installation/maintenance of ground and air source heat pumps, installation/maintenance of electric vehicle charging points and solar installation/maintenance. These are all being developed with the support of local businesses. They can also deliver Carbon Literacy Training and are developing a Sustainability Champion group. They will be adding questions around sustainability into their skills diagnostic which will enable them to capture employer needs which, in turn, will contribute to curriculum planning. They will also be launching employer sector forums in the next academic year and a key theme will be sustainability. Again, this will feed into curriculum planning.



Reskilling and upskilling
those already in employment
is an important part of
building a Green Economy

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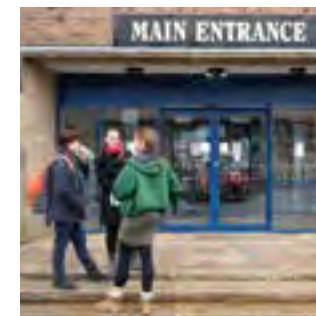
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Attendee at the
Climate Challenge College's
first Green Futures
graduation event

LOCAL ACTION: THE CLIMATE CHALLENGE COLLEGE

Todmorden's innovative **Climate Challenge College** is the first of its kind. They aim to build a local labour pool to kickstart a green economy. Their courses cover practical skills in environmental land management, natural building, repair and reuse, energy-saving, renewable generation schemes, and introductions to climate science and how to take action in the home and workplace.

We can't wait to see more learning opportunities like this.



DOING THINGS DIFFERENTLY

We know that organisations across Calderdale want to do the best for the planet and improve productivity and their long-term prospects. It's not always easy to know where to start.

There are many benefits to becoming more sustainable. A few examples are saving money through energy efficiency, bringing in new customers by offering sustainable choices, or upskilling with training to bring in new work and keep talented staff. We envision a Net Zero future where these benefits and a sustainable energy and transport networks can support organisations, jobs, and sectors to thrive in a wider green economy.

WORKING TOGETHER

Every business will need to start thinking about being greener and how this can benefit them.

We will make green economy discussions part of all our business support projects to ensure we start and support conversations about social value and corporate responsibility.

The **Fair Work Charter** offers a helpful framework for focused discussion on green issues alongside inclusion and diversity.

We will make sure businesses understand and can access existing support and green funding streams for sustainability measures, cycling, sustainable travel and digital technology, and listen to find out where more support or local networks could help to accelerate change. We will continue to build links with employers, particularly those in currently carbon-heavy businesses who are struggling.

Most people travel to work using a car. Employers have a role to play in helping deliver the Climate Action Plan’s ambitions on transport, supporting their staff to get to work sustainably. The Climate Action Partnership will promote sustainable travel options and the benefits of active travel. Employers and employees can join the West Yorkshire Travel Plan Network for further support.

LOCAL ACTION: GREENGLADE DAY NURSERY

Greenglade Day Nursery and Forest School in Hipperholme have been doing things differently for years. They have installed a biomass boiler, they are growing their own vegetables and composting their food waste onsite. They are even planting their own forest.

Kids love getting involved in these activities and learn a lot about the world around them.



CELEBRATING INNOVATION

Many businesses in Calderdale have been living and breathing “green” for years. From zero waste shops and sustainable packaging companies to delivery e-bikes, Calderdale is brimming with action that is leading the way in sustainability.

WORKING TOGETHER

Innovation support is available to help businesses explore new ways of working.

We will promote the support available and monitor engagement to ensure businesses make the most of the help on offer. We will also celebrate green innovators and businesses who can show us what Net Zero looks like using social media, newsletters and events.



Many employers are already supporting their staff to get to work sustainably

ZERO
CARBON CALDERDALE

LOCAL ACTION: CARGODALE

Cargodale is leading the way in zero-emissions delivery in Calderdale. They deliver shopping, hot and cold food and lots more using electric cargo bikes. You might be surprised by the power of an e-cargo bike: it can deliver up to 80kg in one go. They have the advantage over delivery vans. They can navigate tiny lanes, zip around congestion, and take on all the hills in Calderdale. Cargodale was funded by Calderdale Council to deliver essentials to people self-isolating during COVID-19. We can't wait to see more cargo bikes – they're a big part of a Net Zero world.



RENEWABLE ENERGY

Did you know that wind and solar power are now cheaper than fossil fuel energy? These technologies are zero emissions and can be installed and maintained by local people and businesses. They will run for decades and can directly power local homes and businesses cheaply and efficiently. Renewable energy also makes us less dependent on imported energy from the electricity grid and less vulnerable to price hikes. It is a great opportunity for businesses and community groups to reduce energy bills and create new revenue streams. We will need to see a rise in land-based renewables to meet the electricity demands of increasing numbers of electric cars and heat pumps.

Calderdale's Local Plan is a key tool in defining where wind turbines are best placed to fit within our landscape. Wind turbines are already a distinctive part of Calderdale's skyline. However, since the Government restricted their development through changes to national planning policy in 2015, far fewer have been constructed recently than before this date.

The Local Plan **Policies Map** shows areas where wind energy might be appropriate. Policy CC6 of the Local Plan sets out the criteria against which proposals for renewable energy are considered. This matches the national planning policy, which (at the time of writing) is restrictive about land-based wind turbines, reflecting the historic concerns of local communities. However, the Government is looking at new consultations to better understand current views on land-based wind turbines.

As historic mill buildings and weirs show micro hydro is suited to Calderdale's streams and rivers, but installations must be carefully planned to ensure no negative impact on biodiversity or flooding.

WORKING TOGETHER

We will work with the Climate Action Partnership to support appropriate land-based renewable energy projects that benefits to local communities and businesses.

We will publish a Local Area Energy Plan for Calderdale which will help us to further explore technologies and how these can benefit local people.

This will involve utilising the results of Calderdale's Local Area Energy Plan and influencing to enable projects which benefit our local community to get off the ground. This will form part of our Influencing Strategy – read more about this in our Influencing theme.



A wind turbine
under construction at
Blackshaw Head

ZERO
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LOCAL ACTION: BLACKSHAW HEAD PENNINE COMMUNITY POWER WIND TURBINE

Pennine Community Power was formed in 2012 to create community owned and financed renewable energy.

Their first project was a 10kW wind turbine in Blackshaw Head. By early 2016 it had already generated a return for the community investors, nearly 100,000 kWh of clean energy and almost £3,000 of community benefit in the form of community grants.



TRANSPORT AND GETTING AROUND

Transport is one of the biggest areas to tackle: **41%** of Calderdale's direct CO₂ comes from transport - almost all from road traffic. The CO₂e released, about 420,000 kilotons¹ a year hasn't dropped in the last decade. Without action our transport systems and services will be severely impacted by flooding and extreme heat. This will cause disruptions and cancellations to our bus and train services as well as wear, tears, bleeding and cracking to our roads. Hopping in the car to get around is the default for many people - and money has been invested in roads to help people get from A to B quickly and efficiently. However, views on transport are changing.

More and more people are calling for investment in better public transport and infrastructure for active travel. We want a transport system with choice which works for everyone - from the young to the elderly. A necessary action for our transport theme is to have a more detailed understanding of the gaps in our transport system and for us to develop an Investment Strategy to tackle these.

New technology is also changing the game on transport - from innovative car sharing apps to electric cars and e-bikes. We can look to these technologies and our European neighbours to imagine a future where it's easy to get around without a car and have reliable, good quality infrastructure.

Changing our travel habits will significantly reduce carbon emissions and improve air quality, reducing the likelihood of respiratory issues in children and young people and giving people with asthma and several other health conditions a better quality of life. The Climate Action Plan has strong links with the **Calderdale Air Quality Strategy**.

We will know we are succeeding in reducing emissions from transport when we see a reduction in traffic on Calderdale's roads. We expect reduced vehicle traffic will be matched by increased use of buses, trains, shared vehicle use, walking and cycling.

Transport is also linked to consumption - the food and products we buy often need to be transported to us. Where possible we should all try to support local businesses and buy locally made and locally grown food to reduce transport emissions and support our local economy. Read our Community Climate Action section for more information on building sustainable lives.

Currently, our local emissions calculations for travel don't include flying. Reduced flying is an important part of the big picture. Frequent flyers have a huge carbon footprint, and the aviation industry is increasing global temperature. That is why Calderdale Climate Action Partnership are opposed to all airport expansions. There are amazing holiday destinations here in the UK that we can enjoy. Check out **Visit Calderdale** to learn more about holiday destinations and activities on your doorstep.

LOW TRAFFIC NEIGHBOURHOODS

Low Traffic Neighbourhoods are not a new idea: streets for decades have been built with dead ends, bollards or kerbs to lower traffic.

Neighbourhoods across the country are experimenting with new ways of lowering traffic, for example with planters, kids' play equipment or cameras. In the right place, they can make a huge difference in helping people feel safer and happier walking, cycling and spending time outside.



CREATING STREETS FOR EVERYONE

Safe, attractive streets with low pollution and noise levels are better for everyone. They mean we feel comfortable when walking or cycling with our children to school, when crossing the road with our dog or when chatting with neighbours.

Being able to take short journeys on foot or bike is great for our health, too. This makes us feel better by keeping our lungs, heart, and brain healthy, and reducing pressure on the NHS in the long term.

WORKING TOGETHER

We will work with our communities to find out what changes are best in their streets. These changes might be cycle lanes, car-free days or benches to rest on. This could also mean removing parking spaces for things that improve lives better such as café seating and kids' play areas.

We will ask which communities would like to trial low traffic neighbourhoods.

We will measure success by increasing miles of green and healthy streets in the borough.

START TODAY

Get in touch with activestreets@calderdale.gov.uk if greener and healthier streets are something you are interested in.

LOCAL ACTION: SCHOOL STREETS

We know that it's great for kids' health, happiness, and concentration if they get fresh air in the morning. It's much better than being stuck in a car.

With Calderdale Council's help, schools across the borough are taking action to close streets to make them safer for walking and cycling – find out more on the [School Streets website](https://www.calderdale.gov.uk/schoolstreets) or by contacting schoolstreets@calderdale.gov.uk.



GREEN STREETS

What is a green street? It's a street designed to include trees and plants whilst being functional for people and vehicles. Green streets can reduce pollution, make neighbourhoods more pleasant to spend time in, and offer space for local biodiversity such as birds and insects to thrive. Green streets are also resilient to climate change by offering shading during extreme heat and supporting heavy rainwater runoff to decrease flood risk.

Our roads can struggle to function when we have heavy rainfall. Water can pool on top of the road and quickly fill up our Victorian drains. Newer road building methods use planting and different types of surface materials to reduce problems. We want to see more sustainable urban drainage systems in Calderdale.

WORKING TOGETHER

We want to make sure there is a place for trees and plants in our street scene. Calderdale Council will implement a Green and Healthy Streets Policy for council land and work with partners on this as part of its implementation from 2023.

Trees are fantastic for storing carbon and supporting biodiversity. Our aim is to preserve mature trees and plant good quality trees in the right places when work may require the removal of trees.

We want our towns and streets to be green and resilient.

START TODAY

You can also help by planting trees on your land or garden. You can contact NFM@calderdale.gov.uk for advice on tree planting.

Another way to help is by not paving (or by de-paving) your driveway and not installing artificial grass. You can also help by installing water butts that overflow into **rain gardens** rather than the combined sewer. This isn't just important in areas prone to flooding, but to soak up water before it moves into areas that flood. **Slow the Flow** have great advice on things you can do at home, school, or work.

You can check out the **postcode gardeners** to find out how this can bring nature back to your street.



Rain garden planters at
Hebden Bridge Town Hall

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PUBLIC TRANSPORT

Research shows that switching from car to bus is one of the most cost-effective ways of lowering CO₂ (see [Appendix 2.3](#)). However, we need to know that the bus or train will turn up on time and will be affordable and clean. Improving public transport, and encouraging people to switch to it, will not only reduce CO₂. It will mean our young people will find it easier to get to school or the college of their choice and people without a car can get to work on time. It will reduce traffic and demand in car parks. Travelling on public transport means you can relax, read a book, or watch the world go by on your travels.

Private companies like First and Arriva run buses in West Yorkshire. Many bus routes away from main roads or in smaller communities are currently financed by local authorities like Calderdale Council.

The Mayor of West Yorkshire has pledged to take more control of buses so that people can access them more often. This has started with a Bus Quality Partnership where bus companies are working with Calderdale Council and the West Yorkshire Combined Authority to improve services.

We will work on developing a bold vision and key influencing asks for public transport services in Calderdale.

WORKING TOGETHER

Our action is to make sure Calderdale has a voice where decisions on services are made, making the most of any changes happening to public transport. The Influencing Strategy will outline how we do this and engage as many people as possible in the process.

We will work with West Yorkshire Combined Authority make sure that evolving bus networks are providing communities with reliable and frequent transport. We will aim for high quality waiting and bus access facilities that match standards within the region.

We want public transport in Calderdale and beyond to have lower fares and be more reliable. We will measure our success by an increase in bus and rail trips taken in Calderdale.

We will influence and work with key stakeholders to address rail issues such as electrification of railway lines, safe and secure bike space, and fully accessible stations.

START TODAY

There are also great opportunities for employers to take part. You can read in our Green Economy section how we plan to work with employers to reduce emissions from the commute.



ELECTRIC VEHICLES

To achieve Net Zero, we need to move away from the car being the default mode of transport. There will always be some journeys that are best done in the car, and this is where car sharing and electric cars and vans are part of the solution to help us cut fuel costs and pollution. There will be carbon costs involved with producing new electric vehicles (EV) and charge point infrastructure. But research shows that this option is significantly lower in carbon emissions overall than continuing to rely on vehicles powered by fossil fuels. Having fewer cars on the road will also mean fewer delays and less traffic.

WORKING TOGETHER

Affordability and accessibility are two key obstacles in the move away from fossil fuel vehicles to EVs. Charging an EV is also a big concern for people who own an EV or are considering the switch. To solve these obstacles and concerns we will need to explore off-street charging issues, different charging hub models and access to be able to purchase an EV.


To help find the answers to this we will work regionally to produce a West Yorkshire Electric Vehicle Strategy by 2024. We will work locally to produce a Calderdale-based strategy or policy by 2025 or sooner.

We can also use Calderdale’s Local Area Energy Plan to tell us what needs to happen, when and where for low carbon technologies and EV charging. We aim to find ways to support private hire vehicles to consider electric vehicles options.

LOCAL ACTION:

CALDERDALE HOSPITAL ELECTRIFYING THEIR FLEET

Calderdale’s local hospital has converted most of its fleet to electric. This has not only reduced CO₂ but has meant money saved for our NHS.





Electric vehicle charging at Calderdale Royal Hospital



CYCLING AND E-BIKES

There's no hiding from it – with Calderdale's steep valleys, getting around by bike can be hard work. We will continue to develop flat routes between towns – the canal towpath is a great example of this. For the hills, e-bikes have got to be the future: they mean you can glide up the hills without breaking a sweat. Bikes and e-bikes are the perfect low-carbon alternative for short and medium-length journeys. Maybe you've visited another country with great bike lanes and enjoyed it. We want to have that for Calderdale.

WORKING TOGETHER

We know that storage space can be an issue for many people.

We will work with businesses, community organisations and other partners to identify key public locations for secure bike and e-bike storage.

We will promote cycle to work schemes where employers can help reduce the purchase cost.

We will aim to install secure cycle lockers similar to those you may have seen in places such as Leeds and London.

We will work with partners to investigate trialling a rented bike scheme.

START TODAY

You can start your e-bike journey by trialling an e-bike. Call your local shop to see if there is one you can take out for a test spin. This will help us know of where interest in e-bikes is in the borough so we can plan things like taster days or e-bike festivals.

Find out more about the range of Bikeability training and [cycling courses](#) for children or adults.



LOCAL ACTION: SAFE TRAVEL CUP

Calderdale Council's Transport Service runs the Safe Travel Cup every year. Children from local primary schools were asked to develop exciting ideas to persuade people to leave their cars at home.

Recent example entries to the SAFE Travel Cup were Riverside School's innovative idea of a board game 'the more you walk, cycle or scoot to school, the closer you are to winning the game'.

Another favourite was a song from Bolton Brow School that featured the line "don't be a car potato", complete with illustrated T-shirts!



Children taking part in cycling training at a school in Rastrick

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NETWORKS AND INFRASTRUCTURE

Safety and connectivity are an important part of cycling and walking. We know that if we want to encourage all ages to be active the right infrastructure needs to be in place. Creating space for walking and cycling has proven to have **benefits** for our health, the economy and reducing traffic. Here in Calderdale, we are lucky to have beautiful scenery to enjoy whilst we move. We want Calderdale to have an enhanced active travel network and take inspiration from places like Greater Manchester's **Bee Network**. We want to see segregated cycle lanes which protect riders and aim to apply **LNT1/20** cycle guidance on creating high quality and safe infrastructure. Let's get moving.

WORKING TOGETHER

This Action Plan will support and work with strategies like the **Cycling Strategy** with the aim to create an active travel network across the borough.

We will start the review of the Cycling Strategy by 2026 or sooner.

We will start a Travel Plan Supplementary Plan Document (SPD) by 2026.

START TODAY

Get active in Calderdale by exploring the below networks:

- [Public Rights of Way \(RoW\) in Calderdale](#)
- [Cycle Route Guides](#)
- [Active Calderdale](#)

CAR CLUBS AND MOBILITY HUBS

Car clubs allow us access to a car but without the pain of paying for maintenance, MOTs, and a large upfront cost. They mean you can access a vehicle when you need it, whether that's to move furniture, in place of a second car, or if you can usually manage without owning a car.

Mobility hubs are places where all transport options are connected. For example, you might ride your e-bike to a hub where you park it securely, charge it and take the bus to your destination. Or you could walk to your nearest mobility hub and pick up an electric car club vehicle.

WORKING TOGETHER

We aim for you to see more car club vehicles in prominent positions across Calderdale. We will work with and support car club providers to expand.

We will work with partners and communities to identify key locations for mobility hubs. We will work to ensure that neighbourhoods have what they need to make travelling sustainably work for them.

LOCAL ACTION: HOUR CAR

Hour Car is a thriving Car Share Scheme, which has been operating in the Upper Calder Valley for more than 18 years.

Their aim is to provide an efficient, low-cost alternative to owning a car for residents of Hebden Bridge and the surrounding area. They have five vehicles and over 60 members.

They have recently secured funding for an additional electric vehicle through the Community Foundation for Calderdale £1 million Climate Emergency Fund which will be located at the Mobility Hub at Todmorden Railway Station.



Electric vehicle charging point in Calderdale

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LAND AND NATURE

With its lush, wooded valleys, windswept heather moorlands and breath-taking views from the tops, Calderdale's distinctive countryside can always lift our spirits. However, many of our treasured places, plants and animals are declining. If left unaddressed, the changes in seasons, unpredictable weather and extreme weather events will continue to negatively impact our beautiful places, plants, and animals as we have witnessed with wildfires on our moorlands and peatlands. All these changes impact how we grow food and the health of our soil too. Our beautiful countryside needs our protection and we need to manage it sustainably in the long run.

By 2038, we will see a Calderdale where vulnerable species are thriving, peatland and moorland are regenerated, grassland and soil is healthy, natural flood management reduces flood risk and there are more wild places.

The actions in this theme link together to create a spatial strategy for Calderdale.

ECOLOGICAL EMERGENCY

Through this Plan we are addressing the climate emergency in a way that aims to protect our important biodiversity. To do it justice, the ecological emergency needs its own time and attention.

In 2022, we started to collect data to help us write an Ecological Emergency Plan which will be published by the end of 2023.

This will help us understand the wildlife habitats and sites that need conservation and take action to reverse wildlife declines and other related work such as:

- Stopping the spread of invasive species
- Further reducing harmful pesticides throughout the borough
- Looking after our soil health
- Setting targets and monitoring progress

START TODAY

You can take many actions to help protect Calderdale's nature. Here are some examples:

- Join a wildlife group, keep learning, donate, volunteer, and put your unique skills to any of the many groups in Calderdale working to protect the environment. **Countryside events** is a great place to start
- Report **invasive species**: Eye on Calderdale shows you how to do this
- Growing your own garden or **allotment** is a valuable way to connect with nature, create habitats for insects and birds and grow your own fresh vegetables and flowers
- Buy your food locally from farm shops in your area or check the labels of your food in supermarkets to see where it has come from
- Avoid using non-natural gardening techniques like AstroTurf, and instead of burning garden waste explore options such as habitat piles

LOCAL ACTION: CROMWELL BOTTOM

Cromwell Bottom in Brighouse is one Calderdale's most important wildlife sites. The river Calder runs through the nature reserve next to the Calder and Hebble Navigation. It has been a quarry, a tip for ash from a power station and a landfill site.

In 2015, residents were asked what they would like to see happen to the site. It was transformed into a mix of woodland, wetlands and grasslands. The wetlands and meadows now provide a variety of habitats for many insects, including butterflies, moths, dragonflies and damselflies.



Growing your own fruit and vegetables not only reduces carbon emissions – it can be rewarding and delicious

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RESTORING PEATLANDS

Our moors are important and unusual places. Alongside the heather moorlands, they are naturally waterlogged areas. Plants that thrive there create a thick layer of a special soil called peat. Because of the high-water table, the dead plants don't decompose like they would if they had been exposed to the air. Instead, they become peat, a long-term store of carbon locked into the ground. A healthy peat bog turns atmospheric CO₂ into stored carbon; there is no limit to the amount of carbon it can capture.

Unfortunately, traditional land management practices have dried out moorlands in an attempt to make them more useful for water gathering for reservoirs, agriculture, and shooting, resulting in unhealthy bogs. Once the peat is exposed to the air, it decomposes and becomes a carbon source, releasing CO₂ rather than locking it up.

Drained peatlands are also at increased risk of wildfires which are extremely worrying for nearby communities. **We are taking action** to ensure that fire risk is lowered – including banning the lighting of fires, barbecues, fireworks and sky lanterns in these areas. Controlled burning heather can also pose a fire risk, particularly for areas that have been drained.

Moorlands also took a hit during the industrial revolution. Smoke from factories deposited harmful chemicals into the moors, and the land needs help to recover. We need to restore our peatlands by 2038¹ to meet our Net Zero goals.

WORKING TOGETHER

We will continue to support and find the resource to work across boundaries to research, conserve, restore and raise awareness of this unique environment.

This includes working with the incredible **Moors for the Future** and the South Pennines **Fire Operations Group**.

START TODAY

You can help by avoiding using compost containing peat. Unless the label says it is peat-free, it's likely to contain at least 70% peat. Read more in **this article** about the alternatives to peat by the Royal Horticultural Society.

Look out for volunteering opportunities with **Moors for the Future**. You can help restore peatlands, learn new skills, meet new people, and see new things.



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Peat free compost is a great way to help the environment

LOCAL ACTION: GROWING RESILIENCE PROJECT

Blanket bogs are covered in a layer of plants, including bog moss, also known as sphagnum. In 2020, Calderdale Council secured a National Lottery bid to start an innovative project to grow moss in a nursery and plant it on local council-owned blanket bog areas. We will continue to develop this project.



SLOWING THE FLOW

Most of our towns in Calderdale are at the bottom of our valleys. Heavy rain on the hills can cascade downstream far too quickly. We can help prevent too much water from coming into our towns with Natural Flood Management (NFM).

Our borough has a rich industrial history, built on trying to harness the power of water as it passes through our towns and villages—from a raindrop to a raging river. We straightened streams, built walls and weirs, and covered the ground with stone and concrete. When rain falls, water has nowhere to go but along the pavements, streets, drains, and rivers. Our rivers are constrained in narrow channels, with no room to expand. Weather experts predict that climate change will result in heavier and more



Sphagnum moss growing in a nursery in Halifax

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frequent storms in the UK. The legacy of our landscape manipulation will continue to contribute to flood risk.

NFM involves lots of small interventions that together can have a big impact on slowing the water down. An example is leaky dams which act as speed bumps and give the ground more time to soak up water. Another example is attenuation ponds. These are normally dry ponds that store water somewhere in heavy rainfall.

We can also use sustainable urban drainage systems that complements NFM; these can reduce water run-off and use water butts, green roofs, water gardens and permeable paving.

WORKING TOGETHER

NFM needs to happen on a large scale to have a big impact. We will continue this work and use our Influencing Strategy to roll it out further. Read more about our key asks in the Influencing section.

We will measure progress by monitoring the number of NFM interventions across Calderdale.

START TODAY

You can volunteer with [Slow The Flow](#) and get stuck in! Other NFM organisations in Calderdale also run volunteer days which are usually advertised on the Eye on Calderdale [website](#). Landowners can join in by seeing what measures could be applied to their land and grants are often available too.

If you have a garden, you may be able to help water reach the soil rather than drains. Look at Slow The Flow's resources on water friendly gardens.

LOCAL ACTION: LANDOWNER GRANT SCHEME

Calderdale Council launched the NFM [Landowner Grant Scheme](#) in 2018. Since then, staff have worked with local farmers and landowners to create 6,000m³ of rainwater attenuation features, 3,200m of new hedges, the planting of 4,500 trees, and the creation of over 100 leaky dams. All this will help to mitigate the impacts of the more frequent and intense storm events.



LOCAL ACTION: HARDCASTLE CRAGS

Slow The Flow has been working with The National Trust at Hardcastle Craggs since 2016 to develop a pilot scheme to reduce flood risk in Hebden Bridge using NFM.

The volunteers meet monthly and have built more than 520 woody leaky dams with another 100 built by local contractors in harder to reach locations.

This helps to reduce the height of the flood peak further down the catchment, at Hebden Bridge, Mytholmroyd and beyond. These leaky dams also provide additional environmental benefits like diversifying natural habitats for animals, insects and plants. Look at the Slow The Flow website to check volunteer dates or visit [Hardcastle Craggs](#) to see if you can spot leaky dams.



FARMING FOR THE FUTURE

We need to recognise and support the important work farmers do in putting food on our tables and managing our countryside. Farmers understand that they are essential to Net Zero and climate resilience.

Grazing has always been part of grasslands ecosystems - no grazing, too little, or too much can be hugely damaging to the habitat and dependent species, which include butterflies, grassland fungi, and bees. However, sheep and cattle production produce planet-warming gases such as methane and can compact the ground which can lead to flooding.

WORKING TOGETHER

Our ecological survey work and Local Area Energy Plan will help us understand the best use for land in Calderdale, whether that is for carbon absorption, generating energy, or protecting biodiversity.

We will work with farmers and landowners to offer land and farming management advice that works for the geography of Calderdale, and the future climate. Our ecological survey work will inform this. We will also need to research growing crops that are more resilient to climate change.



Tree planting on land
in the Calder Valley

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START TODAY

Calder Rivers Trust has a range of detailed advice on land management practices to help farmers use resources more efficiently.

We also now better understand techniques that keep carbon stored in the soil. There are grants available to support **sustainable farming methods**. This can reduce the need for fertilisers which are made from fossil fuels and increase the carbon capture in our farms.

Farming practices are always changing and evolving. There are increasing opportunities for farm diversification which can bring in new income and support greener farm practices.

LOCAL ACTION: CALDERDALE LAND USE CARBON CALCULATOR

The carbon footprint of farmland can vary widely as a result of how it is used and managed. The soil and vegetation type, the health of the ecosystem, and any inputs (i.e. fertiliser and feed) and outputs (i.e. meat and timber) all affect how the land contributes to climate change.

Over the next twelve months, The Calder Rivers Trust are working with Stirling University to assess the carbon footprint of Calderdale's land use, and to establish the impact of changing our land use, such as tree planting, changes to grazing regimes and livestock management, or restoring degraded peatland. The results from this study will inform future actions in this Plan.

ABSORBING CARBON

Trees are climate superheroes: as they grow, they absorb and store the carbon dioxide driving climate change. Over a lifetime of 100 years, one tree could absorb one tonne of CO₂. If managed well, our peatlands are also important carbon stores.

We will need to see peatland restoration and new tree planting to meet our Net Zero targets. We must also conserve and enhance our existing woodlands, which act as carbon stores.

Our survey work will help us understand where to plant new trees and the condition of our peatlands.

We will work to implement the White Rose Forest Action Plan to play our part in creating a woodland that stretches from Liverpool to the Yorkshire Coast. We will measure this by an increase in tree canopy across Calderdale.

LOCAL ACTION: HEIGHT FARM

A new 10ha woodland has been created at Height Farm above Todmorden. The trees that have been planted are all native including oaks, birch, hawthorn and hazel. The new woodland will capture 2,300 tonnes of carbon over the next hundred years.

The trees were planted by local volunteers working with **Treesponsibility** and **ForusTree** and were funded through the **White Rose Forest Trees** for Climate Fund.



START TODAY

You can help by planting trees. The right tree must be planted in the right place. Always seek advice to make sure that tree planting will not damage land of high biodiversity value. Get in touch with **NFM@calderdale.gov.uk** for advice.

LOCAL ACTION: TREESRESPONSIBILITY

Formed in 1998, **Treesponsibility** has made a huge difference in Calderdale. They campaign and educate on the need for climate action and provide opportunities for volunteers to plant trees. Since the Boxing Day floods in 2015, their volunteers have helped plant more than 50,000 trees around Calderdale.

Treesponsibility is a 25-year project and that 25 years comes to an end in 2023. **ForusTree** is the successor and is doing great work to absorb carbon and restore biodiversity. You can check out their website for opportunities to volunteer and donate to help plant more trees in Calderdale.



Trees and moorland
play an important role
in absorbing and
storing carbon

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APPENDIX 1A: FULL ACTION PLAN

THEME	STRANDS	MEASURES	TARGET	CODE	HIGH LEVEL ACTION	DETAILED ACTION	DATE
INFLUENCING	Climate Action Partnership & Collaboration			IN1	Produce an Influencing Strategy by 2024		2024 or sooner
INFLUENCING	Climate Action Partnership			IN2	Develop task groups for each theme by 2023	Produce a 6 thematic delivery plans by 2024	2024 or sooner
INFLUENCING	Climate Action Partnership			IN3	Develop a climate adaptation plans		2026 or sooner
INFLUENCING	Climate Action Partnership			IN4	Develop datasets to monitor progress and understand our impact	Create a publicly accessible Climate Dashboard	2026 or sooner
INFLUENCING	Climate Action Partnership & Vision			IN5	Regularly publish our progress with annual reviews as a minimum	First Annual review in 2024	2024
INFLUENCING	Vision	Number of emails addresses signed up to newsletter		IN6	Set up and maintain a Calderdale Climate Action communication campaign to share innovation, monitor progress and strengthen everyone's voices	Review e-newsletter in progress in 2023	2023
INFLUENCING	Vision			IN7	Set up a mechanism where you can input your thoughts and make sure there is a system for feeding back to you, so you know you are being listened to.		2026 or sooner
INFLUENCING	Collaborating	Monitor the amount of investment		IN8	Find local resource for action		2026 or sooner
INFLUENCING	Collaborating			IN9	Collaborate locally on action		2026 or sooner
INFLUENCING	Making Climate Action part of Everything We Do			IN10	Make sure climate action is built into decision making		2026 or sooner
INFLUENCING	Making Climate Action part of Everything We Do			IN11	Support members of the climate action partnership incorporate the key asks to make climate action part of everything we do		2026 or sooner
COMMUNITY CLIMATE ACTION	Green Community Advice Hubs	Number of hubs		CCA1	Launch green community advice hubs across Calderdale	First hub launched by 2024	2024
COMMUNITY CLIMATE ACTION	Spreading the Word			CCA2	Spread the message of building a better, brighter, Zero Carbon Calderdale to as many people as we can	Start major comms campaign in 2022 and continue campaign until 2026	2026
COMMUNITY CLIMATE ACTION	Spreading the Word	Attitudes on climate change		CCA3	Inform people about Calderdale's Climate Action Plan and the many ways they can get involved.	A yearly event to celebrate the climate successes of Calderdale's communities and advise how everyone can become involved in further action	2024 onwards
COMMUNITY CLIMATE ACTION	Building Sustainable lives	Emissions from food and goods		CCA4	Develop ways to help people live more sustainable lives, including what we eat and what we buy	Calderdale Food Network: Silver by 2023 and gold by 2026 or sooner	2023

THEME	STRANDS	MEASURES	TARGET	CODE	HIGH LEVEL ACTION	DETAILED ACTION	DATE
COMMUNITY CLIMATE ACTION	Building Sustainable lives			CCA5	Develop a green database that enables people to find more affordable and accessible sustainable choices.	Explore options for sharing resources within community	2026
COMMUNITY CLIMATE ACTION	Communities Taking Action	Number of climate related groups in the borough		CCA6	Encourage, facilitate and support community climate projects. This includes a dedicated community support worker to work with groups across Calderdale.	Resource a dedicated community support worker by 2024.	2024
COMMUNITY CLIMATE ACTION	Communities Taking Action	Number of people involved in community climate projects		CCA7	Work with existing community networks that already work well to support local ideas and bring in expertise and resources.	Develop infrastructure to support the community and aim to create an inclusive climate champion programme ensuring that a people from a range of different backgrounds can become community climate champions	2026 or sooner
COMMUNITY CLIMATE ACTION	Neighbourhood Climate Action Plans	Number of neighbourhood climate action plans		CCA8	Work with communities to develop neighbourhood climate action plans.	13 neighbourhood climate action plans in place or in development by 2026.	2026 or sooner
WARM & RESILIENT BUILDINGS	Retrofit	EPC rating C or above		WRB1	Develop a fair retrofit strategy covering all building types and tenures	Fair Retrofit Strategy started in 2023.	2023
WARM & RESILIENT BUILDINGS	Retrofit			WRB2	To deliver our retrofit goals we will develop an investment strategy to look at the public, private and match funding available	Investment Strategy by 2024.	2024
WARM & RESILIENT BUILDINGS	Trusted Advice	EPC rating by tenure type		WRB3	Make sure our green local advice hub – introduced in Community Climate Action – is equipped with independent and trusted expertise on home retrofit and finance.. We want to build a directory of local tradespeople with the right skills	Equip local advice hub with trusted and independent advice by 2024.	2024
WARM & RESILIENT BUILDINGS	Trusted Advice			WRB4	Improve costs for currently expensive solutions like solid wall insulation and shared ground source heat pumps.		2026 or sooner
WARM & RESILIENT BUILDINGS	Building Success			WRB5	Start piloting visible and innovative ways of decarbonising homes so we can build the skills needed locally and so people can see what this looks like	Find the necessary financial mechanisms to plan a whole street retrofit by 2023.	2023
WARM & RESILIENT BUILDINGS	Building Success			WRB6	Support communities to develop retrofit solutions in their neighbourhoods		2026 or sooner
WARM & RESILIENT BUILDINGS	Low Carbon New Homes			WRB7	Work and influence to ensure that zero carbon homes and neighbourhoods become the standard in Calderdale and are built to protect us from extreme weather	Resource to inspect new-build homes and other buildings by 2026 or sooner.	2026 or sooner
WARM & RESILIENT BUILDINGS	Low Carbon New Homes	Percentage increase in zero carbon and zero carbon ready new homes		WRB8	Work with the whole supply chain to make sure new buildings, retrofits and extensions are climate resilient and energy efficient	Influence for new builds to be carbon positive by 2026 or sooner.	2026 or sooner
WARM & RESILIENT BUILDINGS	Resilient Buildings	Number of properties with flood resilience measures		WRB9	Provide flood resilience support		2026 or sooner

THEME	STRANDS	MEASURES	TARGET	CODE	HIGH LEVEL ACTION	DETAILED ACTION	DATE
GREEN ECONOMY	Our Journey To Net Zero	Improved business energy performance certificates		GE1	Climate Action Partnership will continue build relationships with employers essential to delivering the transition to a low-carbon economy.	Embed green economy conversations into existing business support work and partner with business networks e.g. the Chambers of Commerce / Business Forums / Business Improvement Districts	2024 onwards
GREEN ECONOMY	Our Journey To Net Zero	Green sector business growth		GE2	We will support the success of green businesses in Calderdale.	Work to help create and grow customer bases to give businesses the ability to expand and innovate.	2024 onwards
GREEN ECONOMY	Green Jobs and Skills	Green training courses in the Borough		GE3	Young people are inspired and motivated to enter green companies and train for green careers.	Encourage and partner with green jobs providers and local employers to get out into schools to inspire young people about green work and careers that will be a huge part of the future. Our local Employment Hub will help	2024 onwards
GREEN ECONOMY	Doing things Differently	Numbers of Calderdale businesses accessing green support offers		GE4	We will make sure businesses understand and can access existing support and green funding streams for resource efficiency, circular economy, cycling, sustainable travel and digital technology, and listen to find out where more support or local networks could help to accelerate change.	Embed information into existing business support work and partner with business networks e.g. the Chambers of Commerce / Business Forums / Business Improvement Districts	2024 onwards
GREEN ECONOMY	Doing things Differently	Numbers of Calderdale businesses accessing clean transport support		GE5	The Climate Action Partnership will work together to promote sustainable travel options and the benefits of active travel to employers and employees and encourage employers to join the West Yorkshire Travel Plan Network for further support.		2024 onwards
GREEN ECONOMY	Celebrating Innovation	An increased perception that others and organisations are taking climate action via the annual Calderdale residents' survey		GE6	We will celebrate green innovators and businesses who can show us what net zero looks like	Seek press coverage, social media, promote via newsletters and events	2024 onwards
GREEN ECONOMY	Renewable Energy	Increased land based renewable energy generation in the Borough		GE7	The Climate Action Partnership will support appropriate land-based renewable energy projects which offer benefits to local communities and businesses	We will publish a Local Area Energy Plan for Calderdale which will help us to further explore technologies and how these can benefit local people	2024 onwards
TRANSPORT & GETTING AROUND	All	Investment Strategy in place		TGA1	Undertake a resource gap analysis for transport and develop an Investment Strategy	Start analysis in 2024	2025 or sooner
TRANSPORT & GETTING AROUND	All			TGA2	Work in line with the Air Quality Strategy and reduce congestion		2023 onwards
TRANSPORT & GETTING AROUND	Creating Streets for Everyone	Number of LTN's		TGA3	Ask which communities would like to trial low traffic neighbourhoods.	Create a plan to be able to trial low traffic neighbourhood	2026 or sooner

THEME	STRANDS	MEASURES	TARGET	CODE	HIGH LEVEL ACTION	DETAILED ACTION	DATE
TRANSPORT & GETTING AROUND	Creating Streets for Everyone	We will measure success by increased miles of green and healthy streets in the borough.		TGA4	Work with communities to find out what changes are best in their streets. These changes might be cycle lanes, car-free days or benches.	Identify funding streams to expand commonplace by 2023, find out what communities would like to see in their neighbourhoods. Investigate the options for a car free day by 2026 or sooner.	2023 onwards
TRANSPORT & GETTING AROUND	Green Streets	Tree canopy cover and number of urban trees		TGA5	Make sure there is a place for trees and plants in our street scene	Calderdale Council to implement a Green and Healthy Streets Policy for council land and work with partners on this as part of its implementation from 2023.	2023
TRANSPORT & GETTING AROUND	Green Streets	Engagement of communication plan		TGA6	Make our towns and streets green and resilient by preserving and planting trees. Introducing measures which reduce flooding.	Create a communication campaign about the benefits of individuals planting trees and avoiding artificial grass and paving by 2026 or sooner.	2026 or sooner
TRANSPORT & GETTING AROUND	Public Transport	Bus and Rail Trips taken in Calderdale		TGA7	Develop a bold vision and key influencing asks for public transport services in Calderdale.	Work with West Yorkshire Combined Authority make sure that evolving bus networks are providing communities with reliable and frequent transport. Influence and work with key stakeholder to address rail issues such as electrification of railway lines, safe and secure bike space and fully accessible stations.	2023 onwards
TRANSPORT & GETTING AROUND	Public Transport			TGA8	Work with Green Economy theme and employers across the borough to create innovative commute solutions	Investigate viability 'Remote Working Hubs' in the 6 main towns by 2026 or sooner	2026 or sooner
TRANSPORT & GETTING AROUND	Electric Vehicles	Number of EV's registered in the Borough		TGA9	Find solutions to affordability and accessibility by exploring off-street charging issues, different charging hub models and access to be able to purchase an EV	Work regionally to produce a West Yorkshire Electric Vehicle Strategy by 2024.	2024
TRANSPORT & GETTING AROUND	Electric Vehicles			TGA9a		Work locally to produce a Calderdale-based strategy or policy by 2025 or sooner.	2025
TRANSPORT & GETTING AROUND	Electric Vehicles			TGA9b		Aim to find ways to support private hire vehicles to consider electric vehicles options.	2023 onwards
TRANSPORT & GETTING AROUND	Cycling and E-bikes			TGA10	Work with businesses, community organisations and other partners to identify key locations for secure e-bike storage	Promote cycle to work schemes with employers to help reduce purchase costs	2023 onwards
TRANSPORT & GETTING AROUND	Cycling and E-bikes			TGA10a		We will aim to install secure cycle lockers similar to places such as Leeds and London	2023 onwards
TRANSPORT & GETTING AROUND	Cycling and E-bikes			TGA11		We will work with partners to investigate trialling rented bike schemes	2023 onwards
TRANSPORT & GETTING AROUND	Networks and Infrastructure			TGA12	Want to see segregated cycle lanes which protect riders and aim to apply LNT1/20 cycle guidance on creating high quality and safe infrastructure.	Start the review of Cycling Strategy	2026 or sooner
TRANSPORT & GETTING AROUND	Networks and Infrastructure			TGA13		Start a Travel Plan Supplementary Planning Document (SPD)	2026

THEME	STRANDS	MEASURES	TARGET	CODE	HIGH LEVEL ACTION	DETAILED ACTION	DATE
TRANSPORT & GETTING AROUND	Car Clubs			TGA14	Work with and support car club providers to expand.	Communicate about the current car clubs in the Borough	2026 or sooner
TRANSPORT & GETTING AROUND	Mobility Hubs			TGA15	Work with partners and communities to identify key locations for mobility hubs	First Mobility Hub by 2025	2025
LAND & NATURE	Ecological Emergency			LN1	To support the creation of Calderdale Council's Ecological Emergency Action Plan	Produce an Ecological Emergency Action Plan by the end of 2023	2023
LAND & NATURE	Ecological Emergency	Ecological emergency action plan be used to set targets for peatland and tree planting		LN2	Undertake key ecological survey work to inform the Ecological Emergency Action Plan	Collect and collate species and habitat condition data to inform ecological planning	2023
LAND & NATURE	Restoring Peatland			LN3	We will continue to support and find the resource to work across boundaries to research, conserve, restore and raise awareness of peatlands and moorlands	Work with the organisations such as Moors for the Future, the South Pennines Fire Operations Group and others	2023 onwards
LAND & NATURE	Restoring Peatland	Increase in km2 of restored peatland		LN4	Restore peatlands and moorlands in the Borough	Work with advisers, farmers and landowners to establish the condition of our moorlands and support actions that will see an increase of our blanket bog in good condition	2023 onwards
LAND & NATURE	Restoring Peatland			LN5		Promote peat free horticulture in Calderdale	2023 onwards
LAND & NATURE	Slowing the Flow	Number of Natural Flood Management interventions across Calderdale		LN6	Increase NFM measures and SUDs in Calderdale	Increase the NFM capacity in Calderdale	2023 onwards
LAND & NATURE	Farming for the Future			LN7	Work with farmers and landowners to offer land and farming management advice that works for the geography of Calderdale, and the future climate informed by ecological survey work, carbon footprinting assessment, and Local Area Energy Plan	Partnership to review land holdings and improving good ecological management practice that will support nature, support soil health and reduce flood risk where appropriate	2026 or Sooner
LAND & NATURE	Farming for the Future			LN8	Assess the carbon footprint of Calderdale's land use, establish the impact of changing our land use, and agree detailed targets for land use	Calder Rivers Trust to produce report on Calderdale's land use and carbon emissions. Once complete share findings with the Climate Action Partnership	2026 or Sooner
LAND & NATURE	Farming for the Future			LN9	Support access to local food produced as sustainably as possible		2024 onwards
LAND & NATURE	Absorbing Carbon			LN10	Conserve and enhance existing woodlands	Set a target for woodlands that can be considered as sustainably managed	2026 or sooner
LAND & NATURE	Absorbing Carbon	Increase in tree canopy coverage		LN11	Increase tree cover	Implement the White Rose Forest Action Plan by planting trees in Calderdale	2026 or sooner

APPENDIX 1B: ACTION PLAN ORGANISED BY DATE

2023			
THEME	STRANDS	CODE	ACTION
INFLUENCING	Vision	IN6	Review e-newsletter in progress in 2023
COMMUNITY CLIMATE ACTION	Building Sustainable lives	CCA4	Calderdale Food Network: Silver by 2023 and gold by 2026 or sooner
WARM & RESILIENT BUILDINGS	Retrofit	WRB1	Fair Retrofit Strategy started in 2023
WARM & RESILIENT BUILDINGS	Building Success	WRB5	Find the necessary financial mechanisms to plan a whole street retrofit by 2023
TRANSPORT & GETTING AROUND	Green Streets	TGA5	Calderdale Council to implement a Green and Healthy Streets Policy for council land and work with partners on this as part of its implementation from 2023
LAND & NATURE	Ecological Emergency	LN1	Produce an Ecological Emergency Action Plan by the end of 2023
LAND & NATURE	Ecological Emergency	LN2	Collect and collate species and habitat condition data to inform ecological planning

2023 ONWARDS			
THEME	STRANDS	CODE	ACTION
TRANSPORT & GETTING AROUND	All	TGA2	Work in line with the Air Quality Strategy and reduce congestion
TRANSPORT & GETTING AROUND	Creating Streets for Everyone	TGA4	Identify funding streams to expand commonplace by 2023, find out what communities would like to see in their neighbourhoods. Investigate the options for a car free day by 2026 or sooner
TRANSPORT & GETTING AROUND	Public Transport	TGA7	Work with West Yorkshire Combined Authority make sure that evolving bus networks are providing communities with reliable and frequent transport. Influence and work with key stakeholder to address rail issues such as electrification of railway lines, safe and secure bike space and fully accessible stations
TRANSPORT & GETTING AROUND	Electric Vehicles	TGA9b	Aim to find ways to support private hire vehicles to consider electric vehicles options
TRANSPORT & GETTING AROUND	Cycling and E-bikes	TGA10	Promote cycle to work schemes with employers to help reduce purchase costs
TRANSPORT & GETTING AROUND	Cycling and E-bikes	TGA10a	We will aim to install secure cycle lockers similar to places such as Leeds and London
TRANSPORT & GETTING AROUND	Cycling and E-bikes	TGA11	We will work with partners to investigate trialling rented bike schemes
LAND & NATURE	Restoring Peatland	LN3	Work with the organisations such as Moors for the Future, the South Pennines Fire Operations Group and others
LAND & NATURE	Restoring Peatland	LN4	Work with advisers, farmers and landowners to establish the condition of our moorlands and support actions that will see an increase of our blanket bog in good condition
LAND & NATURE	Restoring Peatland	LN5	Promote peat free horticulture in Calderdale
LAND & NATURE	Slowing the Flow	LN6	Increase the NFM capacity in Calderdale

2024			
THEME	STRANDS	CODE	ACTION
INFLUENCING	Climate Action Partnership & Collaboration	IN1	Produce an Influencing Strategy by 2024
INFLUENCING	Climate Action Partnership	IN2	Produce a 6 thematic delivery plans by 2024
INFLUENCING	Climate Action Partnership & Vision	IN5	First Annual review in 2024
COMMUNITY CLIMATE ACTION	Green Community Advice Hubs	CCA1	First hub launched by 2024
COMMUNITY CLIMATE ACTION	Communities Taking Action	CCA6	Resource a dedicated community support worker by 2024.
WARM & RESILIENT BUILDINGS	Retrofit	WRB2	Investment Strategy by 2024.
WARM & RESILIENT BUILDINGS	Trusted Advice	WRB3	Equip local advice hub with trusted and independent advice by 2024.
TRANSPORT & GETTING AROUND	Electric Vehicles	TGA9	Work regionally to produce a West Yorkshire Electric Vehicle Strategy by 2024.

2024 ONWARDS			
THEME	STRANDS	CODE	ACTION
COMMUNITY CLIMATE ACTION	Spreading the Word	CCA3	A yearly event to celebrate the climate successes of Calderdale's communities and advise how everyone can become involved in further action
GREEN ECONOMY	Our Journey To Net Zero	GE1	Embed green economy conversations into existing business support work and partner with business networks e.g. the Chambers of Commerce / Business Forums / Business Improvement Districts
GREEN ECONOMY	Our Journey To Net Zero	GE2	Work to help create and grow customer bases to give businesses the ability to expand and innovate.
GREEN ECONOMY	Green Jobs and Skills	GE3	Encourage and partner with green jobs providers and local employers to get out into schools to inspire young people about green work and careers that will be a huge part of the future. Our local Employment Hub will help
GREEN ECONOMY	Doing things Differently	GE4	Embed information into existing business support work and partner with business networks e.g. the Chambers of Commerce / Business Forums / Business Improvement Districts
GREEN ECONOMY	Doing things Differently	GE5	The Climate Action Partnership will work together to promote sustainable travel options and the benefits of active travel to employers and employees and encourage employers to join the West Yorkshire Travel Plan Network for further support.
GREEN ECONOMY	Celebrating Innovation	GE6	Seek press coverage, social media, promote via newsletters and events
GREEN ECONOMY	Renewable Energy	GE7	We will publish a Local Area Energy Plan for Calderdale which will help us to further explore technologies and how these can benefit local people
LAND & NATURE	Farming for the Future	LN9	Support access to local food produced as sustainably as possible

2025			
THEME	STRANDS	CODE	ACTION
TRANSPORT & GETTING AROUND	All	TGA1	Start analysis in for Investment Strategy
TRANSPORT & GETTING AROUND	Electric Vehicles	TGA9a	Work locally to produce a Calderdale-based strategy or policy by 2025 or sooner.
TRANSPORT & GETTING AROUND	Mobility Hubs	TGA15	First Mobility Hub by 2025

2026 OR SOONER			
THEME	STRANDS	CODE	ACTION
INFLUENCING	Climate Action Partnership	IN3	Develop a climate adaptation plans
INFLUENCING	Climate Action Partnership	IN4	Create a publicly accessible Climate Dashboard
INFLUENCING	Vision	IN7	Set up a mechanism where you can input your thoughts and make sure there is a system for feeding back to you, so you know you are being listened to.
INFLUENCING	Collaborating	IN8	Find local resource for action
INFLUENCING	Collaborating	IN9	Collaborate locally on action
INFLUENCING	Making Climate Action part of Everything We Do	IN10	Make sure climate action is built into decision making
INFLUENCING	Making Climate Action part of Everything We Do	IN11	Support members of the climate action partnership incorporate the key asks to make climate action part of everything we do
COMMUNITY CLIMATE ACTION	Spreading the Word	CCA2	Start major comms campaign in 2022 and continue campaign until 2026
COMMUNITY CLIMATE ACTION	Building Sustainable lives	CCA5	Explore options for sharing resources within community
COMMUNITY CLIMATE ACTION	Communities Taking Action	CCA7	Develop infrastructure to support the community and aim to create an inclusive climate champion programme ensuring that a people from a range of different backgrounds can become community climate champions
COMMUNITY CLIMATE ACTION	Neighbourhood Climate Action Plans	CCA8	13 neighbourhood climate action plans in place or in development by 2026.
WARM & RESILIENT BUILDINGS	Trusted Advice	WRB4	Improve costs for currently expensive solutions like solid wall insulation and shared ground source heat pumps.
WARM & RESILIENT BUILDINGS	Building Success	WRB6	Support communities to develop retrofit solutions in their neighbourhoods
WARM & RESILIENT BUILDINGS	Low Carbon New Homes	WRB7	Resource to inspect new-build homes and other buildings by 2026 or sooner.
WARM & RESILIENT BUILDINGS	Low Carbon New Homes	WRB8	Influence for new builds to be 10% carbon positive by 2026 or sooner.
WARM & RESILIENT BUILDINGS	Resilient Buildings	WRB9	Continue to deliver flood resilience grants and support

2026 OR SOONER			
THEME	STRANDS	CODE	ACTION
TRANSPORT & GETTING AROUND	Creating Streets for Everyone	TGA3	Create a plan to be able to trial low traffic neighbourhood
TRANSPORT & GETTING AROUND	Green Streets	TGA6	Create a communication campaign about the benefits of individuals planting trees and avoiding artificial grass and paving by 2026 or sooner.
TRANSPORT & GETTING AROUND	Public Transport	TGA8	Investigate viability 'Remote Working Hubs' in the 6 main towns by 2026 or sooner
TRANSPORT & GETTING AROUND	Networks and Infrastructure	TGA12	Start the review of Cycling Strategy
TRANSPORT & GETTING AROUND	Networks and Infrastructure	TGA13	Start a Travel Plan Supplementary Planning Document (SPD)
TRANSPORT & GETTING AROUND	Car Clubs	TGA14	Communicate about the current car clubs in the Borough
LAND & NATURE	Farming for the Future	LN7	Partnership to review land holdings and improving good ecological management practice that will support nature, support soil health and reduce flood risk where appropriate
LAND & NATURE	Farming for the Future	LN8	Calder Rivers Trust to produce report on Calderdale's land use and carbon emissions. Once complete share findings with the Climate Action Partnership
LAND & NATURE	Absorbing Carbon	LN10	Set a target for woodlands that can be considered as sustainably managed
LAND & NATURE	Absorbing Carbon	LN11	Implement the White Rose Forest Action Plan by planting trees in Calderdale

APPENDIX 2: REFERENCES, DATA, GRAPHS

REFERENCES

We have tried to link to external references throughout the Plan. This is so you can click through and read more if you want.

The main reference you will see in the Plan:

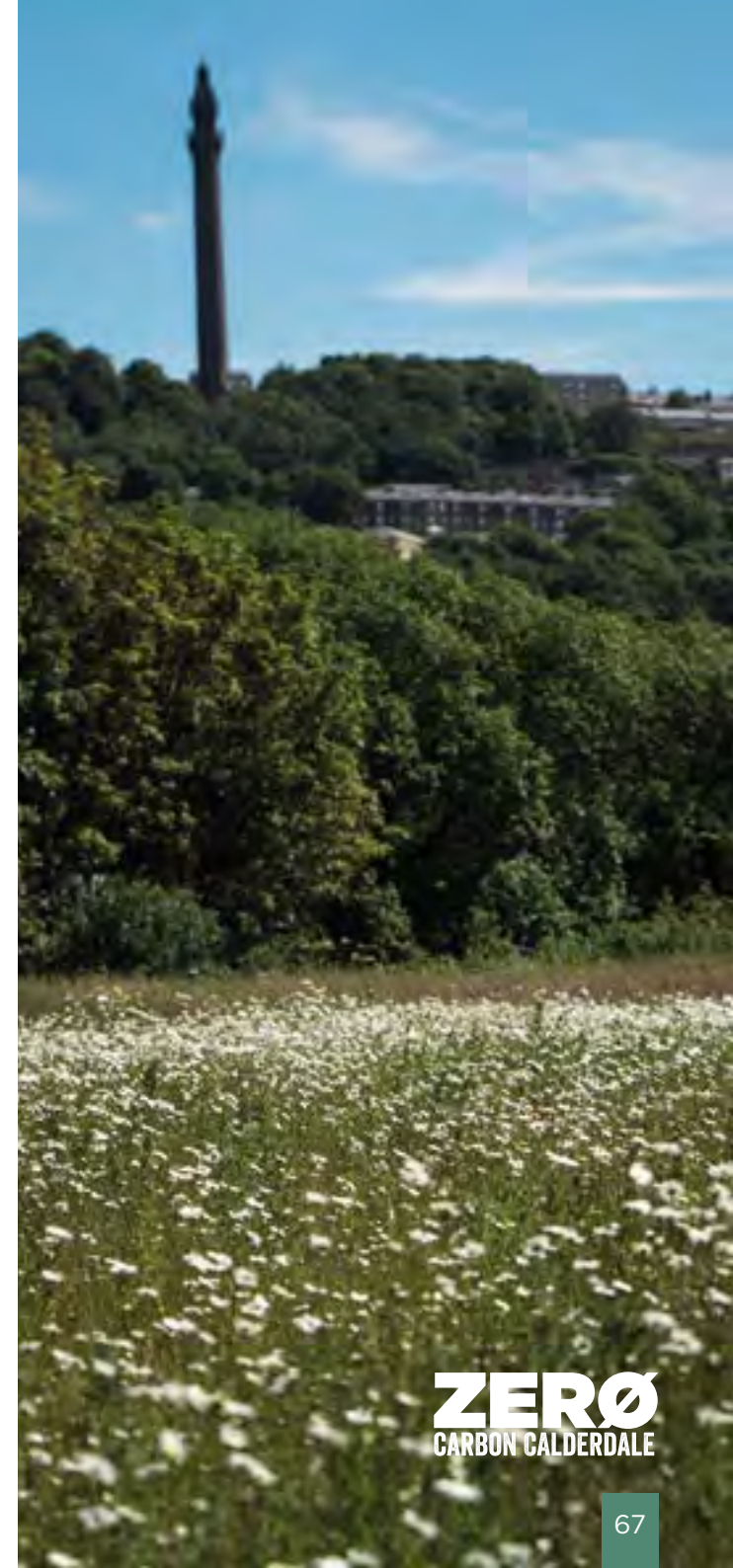
1 Element Energy (2021) Calderdale Emissions Reduction Pathways. Available from:
<https://www.calderdale.gov.uk/v2/sites/default/files/Calderdale-Emission-Reduction-Pathways.pdf>

1* Element Energy (2021) Calderdale Emissions Reduction Pathways – *when domestic and non-domestic property emissions are added together.*

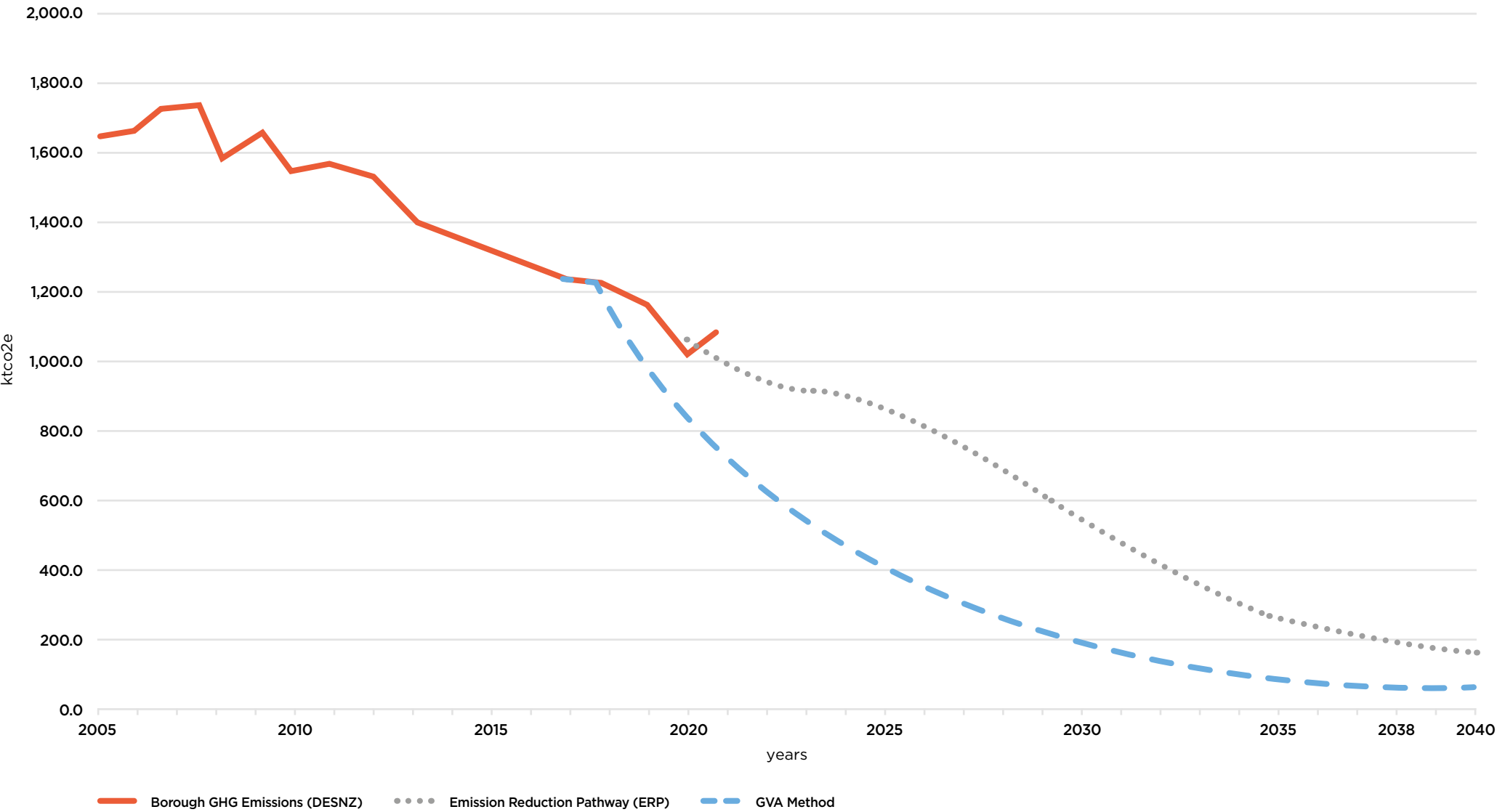
This technical study looked at where emissions are coming from in Calderdale and what we could do to get to Net Zero. It contains a range of references to support its recommendations. This Climate Action Plan reflects on this pathway and has included aspects of the study.

Other references:

Gouldson, A., Sudmant, A., Duncan, A. and Williamson, R. (2020) A Net-Zero Carbon Roadmap for Leeds, Leeds Climate Commission/ Place-Based Climate Action Network



Calderdale Borough Greenhouse Gas Emissions



2.1 MEASURING PROGRESS

This graph shows the pathways we could take to Net Zero. It shows us a reduction in greenhouse gas emissions over time. Calderdale currently emits around 1000 Kt CO₂e per year, and we need to get to zero.

You can see several pathways or lines that get us to zero or close to zero. We will measure our progress yearly by these different pathways.

1. The orange line shows **borough emissions** to date. You can see that there has been a reduction in greenhouse gas emissions since 2005. This is mostly because of the increase in renewable energy.
2. The blue dash line is the GVA carbon reduction target. This is the only pathway aligned with a carbon budget which will help the UK and international players limit global warming to 1.5 degrees – the internationally agreed target. This is a very ambitious pathway and would mean we had to make cuts to emissions very quickly. Learn more about carbon budgets in **this article** and video produced by the Tyndall Centre.
3. The grey dotted line is the Emissions Reduction Pathway “balanced scenario” from our technical study that we undertook in 2021. This is technically feasible. It will still require transformation and ambition, but it doesn’t quite get us to Net Zero by 2038.



2.2 OUR LOW CARBON BIG FIVE



APPENDIX 3: HOW WE MADE THIS PLAN AND ACKNOWLEDGEMENTS

This Climate Action Plan was a team effort, and we are grateful to everyone involved. The consultation for the draft Plan ran from September to November 2022. We have produced the finalised Plan from January to September 2023. The Plan couldn't have been made without the time and expertise of the Climate Action Partnership and Thematic Task Groups.

The Climate Action Partnership includes Cllr Scott Patient (Chair), Cllr Helen Brundell, Cllr Stephanie Clarke, Cllr Regan Dickenson, Cllr Martin John Hey, Cllr Jenny Lynn, Cllr Amanda Parson-Hulse, Natalie Denby, Matt Taylor (Deputy Chair), Andy Bray, Rachel J Johnston, Finn Jensen, Patrick Berry, Stuart Sugarman, Roisin Cavanagh and Calderdale Youth Council.

THEMATIC TASK GROUPS

Each theme was developed by a small task and finish group who made the time and space to get into the detail of each theme and review the consultation feedback to revise the plan. The groups are made up of experts from in that theme area and from Calderdale Council.

APPENDIX 4: GLOSSARY



GENERAL

- **Carbon Emissions**
The chemicals released by carbon when used that damaged the atmosphere and contribute to the acceleration of climate change.
- **Carbon Footprint**
A way of measuring a person's or organisation's carbon emissions.
- **Climate Action Partnership**
A multi-agency partnership that provides overall oversight of the development and delivery of Calderdale's Climate Action Plan.
- **CO₂ Emissions**
CO₂ is one of the greenhouse gases that absorbs radiation and prevents heat from escaping our atmosphere. It is the biggest greenhouse gas in terms of volume. Other greenhouse gases are often compared to CO₂ and included alongside CO₂ emissions as "CO₂e which means CO₂ equivalent."
- **Fossil Fuels**
A fuel formed in the earth from plant or animal remains. Examples include coal, oil or natural gas.
- **Green**
A term that refers to something being environmentally friendly or sustainable.
- **Greenhouse Gases (GHG's)**
A gas that contributes to the greenhouse effect by absorbing heat and keeping this in the earth's atmosphere. Carbon dioxide (CO₂) is an example of a greenhouse gas.
- **Net Zero**
Net Zero refers to a state in which the greenhouse gases going into the atmosphere are balanced by the removal of these gases from the atmosphere.
- **Low Carbon**
Low carbon is a description of something which uses far less fossil fuel than the standard. For example, low-carbon electricity, such as energy generated from the wind or sun, is produced with much lower greenhouse gas emissions than conventional fossil fuel electricity generation.
- **Offsetting**
An action or activity (such as the planting of trees) that compensates for the emission of carbon dioxide or other greenhouse gases into the atmosphere. Careful calculations and checking are needed to make sure there is a balance.
- **Renewable Energy**
Energy produced from a source such as sunlight, wind or water that are naturally replenished.
- **Sustainability**
A term that refers to avoiding the depletion of natural resources to maintain a healthy environment for people, animals and plants.
- **Zero Carbon**
Methods that result in no net release of carbon dioxide into the atmosphere.
- **Zero Emissions**
Methods that results in no emissions from harmful substances being released into the atmosphere.

- **Climate Anxiety**
Anxiety, fear, worry, and distress caused by climate change and ecological damage.
- **Emission Reduction Pathway**
A roadmap prepared by experts which shows how we can cut our fossil fuel use with clean technology and investment in communities: <https://www.calderdale.gov.uk/v2/council/our-vision/climate-emergency#erp>



CLIMATE ACTION ESSENTIALS

- **Climate Adaptation**
The process of adjusting to current or expected impacts of climate change.
- **Climate Refugees**
A person or group that has been displaced and forced to move or flee their home due to the impacts of climate change.
- **Climate Justice**
Recognises the connection between climate change and social and political issues and wants to address this in a fair and equal way.
- **Climate Resilience**
The ability and capacity to respond and recover from the impacts of climate change such as flooding, heatwaves, or storms.
- **Climate Risk**
A risk caused by the impacts of climate change, for example food shortages.
- **Energy Resilience**
The ability of the grid, buildings, and communities to withstand and rapidly

recover from power outages and continue operating with electricity, heating, cooling, ventilation, and other energy-dependent services.



INFLUENCING

- **Data Works**
A website run by Calderdale Council that provides freely available data which can be used or republished by anyone without restrictions: <https://dataworks.calderdale.gov.uk/>
- **Procurement Process**
The process of locating and agreeing to terms of purchasing goods, services or other works from an external source.



COMMUNITY CLIMATE ACTION

- **Green Community**
A town, village or place that actively works to become more sustainable through collective effort and activities.



WARM & RESILIENT BUILDINGS

- **Carbon Positive**
An activity that goes beyond Net Zero to create an environmental benefit by removing additional carbon dioxide from the atmosphere.
- **District Heating**
District heating is a system for sharing heat generated in a central place through a system of insulated pipes (usually buried alongside

other utilities) to homes or businesses which need heating and hot water.

- **Decarbonisation**
Describes the transition to a future which looks to use alternative methods to reduce and avoid use of carbon emissions. For example, changing to renewable energy like wind turbines.
- **Energy Efficiency**
Using less energy to perform the same process or task reducing the amount of energy that is wasted.
- **Fuel Poverty**
A condition by which a household is unable to afford to adequately heat (or cool) their home.
- **Green Roof**
A roof of a building that is partially or entirely covered with plants.
- **Heat Pump**
A device that transfers heat from one area to another. Refrigerators use heat pumps to keep food cool – heat pumps for properties operate in the reverse direction and generate heat to keep the inside of a building warm.
- **Passivhaus**
A quality assured standard and methodology for low-energy building, which helps create buildings that use around 75% less energy compared to standard practice for UK newbuild.
- **Retrofit**
Making changes to existing buildings so that energy consumption and carbon emissions are reduced. These changes should also provide the benefit of a more comfortable and healthier home with lower fuel bills.



GREEN ECONOMY

- **Solid Wall Insulation**
An energy saving procedure where an extra layer of insulation is added to the walls of a house to preserve heat in the home.
- **B-Corp**
A private certification of for-profit companies of their social and environmental performance.
- **Biomass**
Plant-based material is used as fuel to produce heat or electricity. It is often considered to be Net Zero as the CO₂ produced when burning the material is balanced by the CO₂ taken in by the plant when it grows.
- **Circular Economy**
A business or production model that is designed to follow the lifecycle of a product from start to finish and take accountability for any damages it causes.
- **Corporate Responsibility**
The responsibilities companies and organisations have to people, environment and place.
- **Green Economy**
An economy where economic activity doesn't have as significant a negative impact on the environment and biodiversity. Involves the sustainable management of resources and is good for people.
- **Green Jobs**
Positions in agriculture, manufacturing, research & development, administrative, and service activities aimed at substantially preserving or restoring environmental quality.

- **Green Skills**
Knowledge, abilities, values, and attitudes needed to live in, develop and support a Net Zero sustainable and resource-efficient society.
- **Social Value**
Social Value aims to incorporate the positive impact that procurement and businesses can have for the local economy, communities, and wider society.
- **Zero Waste**
A set of principles focused on waste prevention during the design and management of products and processes.



TRANSPORT & GETTING AROUND

- **Active Travel**
Getting around in a way which uses a physical activity such as walking, cycling and wheeling.
- **Air Quality**
How polluted the air that we breathe is.
- **Water Butts**
A system that stores rainwater which can then be used for watering plants or cleaning outdoor spaces.



LAND & NATURE

- **Attenuation Pods**
An attenuation pond collects rainfall and surface water and slowly releases it into the drainage system or surrounding ground.
- **Biodiversity**
Refers to the variety of living species on earth, including plants, animals, bacteria, and fungi.

- **Blanket Bogs**
An area of peatland that is consistently wet allowing certain types of peat and moss to grow.
- **Carbon Capture & Storage**
A way of containing and sometimes converting carbon to retain it from damaging the atmosphere.
- **Ecological Emergency**
The pressures of climate change, intensive agriculture, unsustainable use of resources, and continuous development are causing an ecological emergency. The result is that wildlife is declining at an alarming rate.
- **Ecological Survey**
An survey that is carried out to investigate the health of area of land in terms of its species.
- **Flood Resilience Measures**
Changes to a property that reduces the risk of water getting in and/or reduces the impact if flood water does get in. Flood resilience measures can also be designed for infrastructures like roads and railways.
- **Food Security**
Having reliable access to food.
- **Glyphosate**
A substance that is toxic to many plants and is used to kill weeds.
- **Invasive Species**
An animal or plant that harms the environment after being artificially introduced to a place by humans.
- **Land-based Renewables**
Energy infrastructure which requires land space such as solar panels or wind turbines for example, that require land space.

- **Leaky Dams**
A flooding prevention measure, slowing the flow of water downstream. Barriers are added to a stream/river to prevent soil and silt from escaping. This means that water flows at a slower rate.
- **Micro Hydro**
A type of power that can create electricity using natural flow of water.
- **Natural Flood Management (NFM)**
When natural processes are used to reduce the risk of flooding (and coastal erosion). 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.
- **Spatial Strategy**
A plan for land use so that areas are able to produce food and energy, provide housing and protect biodiversity considering the geography and needs of that area.
- **Sustainable Urban Drainage System**
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 for the next generation.

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 if we are to meet our target of Net Zero emissions by 2038.

**Join us on our path to
a brighter future.**

Thank you for reading our Climate Action Plan.

Learn more by visiting: [Climate emergency | Calderdale Council.](#)

Sign up for our climate newsletter: [https://mailchi.mp/calderdale/zerocarbon.](https://mailchi.mp/calderdale/zerocarbon)



ZERO
CARBON CALDERDALE