

Carbon neutral Cornwall 2030

My world. Our planet.



Falmouth and Penryn

Community Area Partnership Environmental Profile 2023



Our Environmental Challenge

Our climate and natural environment are highly fragile and not as healthy as they need to be. Although fundamental to our life, health and prosperity, we are in a **Climate** and **Ecological Emergency** and the impacts are already being felt all over the world, including here in Cornwall.

Cornwall has been warming since the 19th century and the sea level around the coast of Cornwall has also been increasing for at least the past 100 years.

We have an opportunity to lead the way by changing how we live to support our environment. We can do this through three approaches:



Climate Emergency



Cut emissions to keep global temperature rises below 1.5°C

Ecological Emergency



Protect, enhance, create & restore habitats to reverse nature's decline

Environmental Adaptation



Adapt to make us more resilient to a changing environment

Cornwall Climate Change Risk Assessment

Carbon Neutral Action Plan

Create conditions for change to reduce our emissions to net zero



Target: Net carbon neutral by 2030

Environmental Growth Strategy & Nature Recovery Strategy

Grow nature to boost biodiversity and ecosystem services



Target: 30% of land, rivers and seas well-managed for nature by 2030

Cornwall Adaptation Strategy

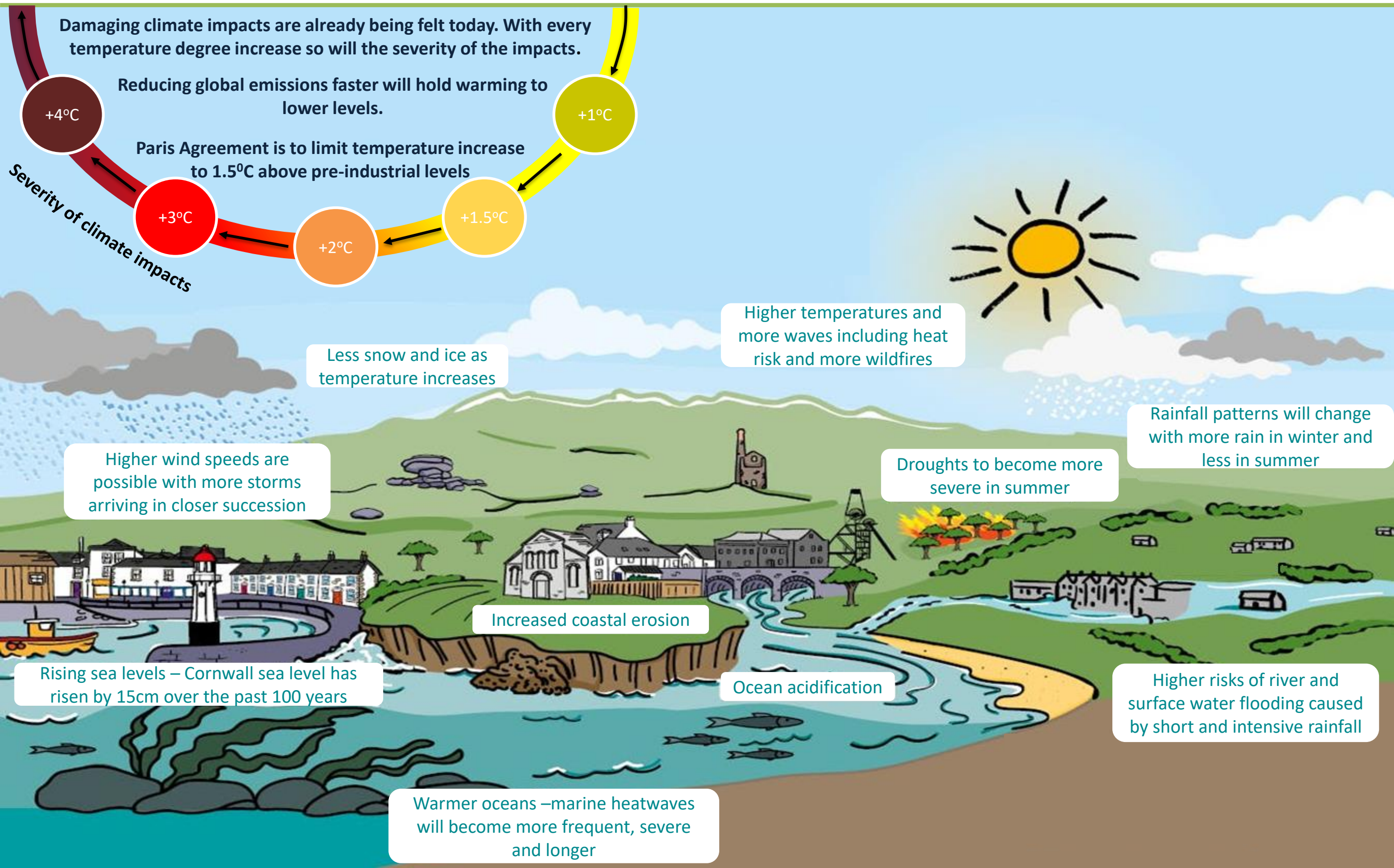
Create conditions for resilient communities to adapt to a changing climate



Target: Enabling resilient communities

Development of a Cornwall Climate Commission

Cornwall Climate Change Projection



Impacts Cornwall is likely to see

Health and Wellbeing

- Heat is an acute health hazard for those over 65 and people with existing health conditions
- Cold / damp can lead to problems and diseases from increased blood pressure, common colds, heart attacks and pneumonia
- Coastal erosion could include the potential for death and serious injury
- Increase in extreme weather including flooding, wind and storms could have a risk to health through damage to infrastructure and possible injuries from flying debris. Roads blocked by fallen trees delaying the emergency services



Residential Properties and critical infrastructure

- New houses can be susceptible to overheating, whilst houses which are poorly insulated are hard to heat, causing cold and damp conditions
- Increases in extreme weather including flooding, wind and storms has potential for immediate and long-term damage including structure damage, subsidence or persistent damp and power cuts
- Coastal erosion risks immediate and long-term damage from subsidence including roads, water and electricity infrastructure
- Challenges in securing development investment and/ or insurance



Forestry

- Increase in extreme weather events may increase forest damage, localised erosion and landslides that could damage trees
- Climate change could also increase the occurrence of insects, pests and pathogens that could damage trees and crops



Priority habitats in Cornwall

- Most habitats are likely to be subjected to multiple climate change stressors, which will also impact wildlife
- These include changes to water availability, novel or invasive pests and diseases, and a squeeze in our coastal fringe habitats including sand dunes
- Increased droughts will dry up our rivers and wetlands, and stress our important woodland habitats
- Drier conditions can lead to increased wildfires in our heathlands



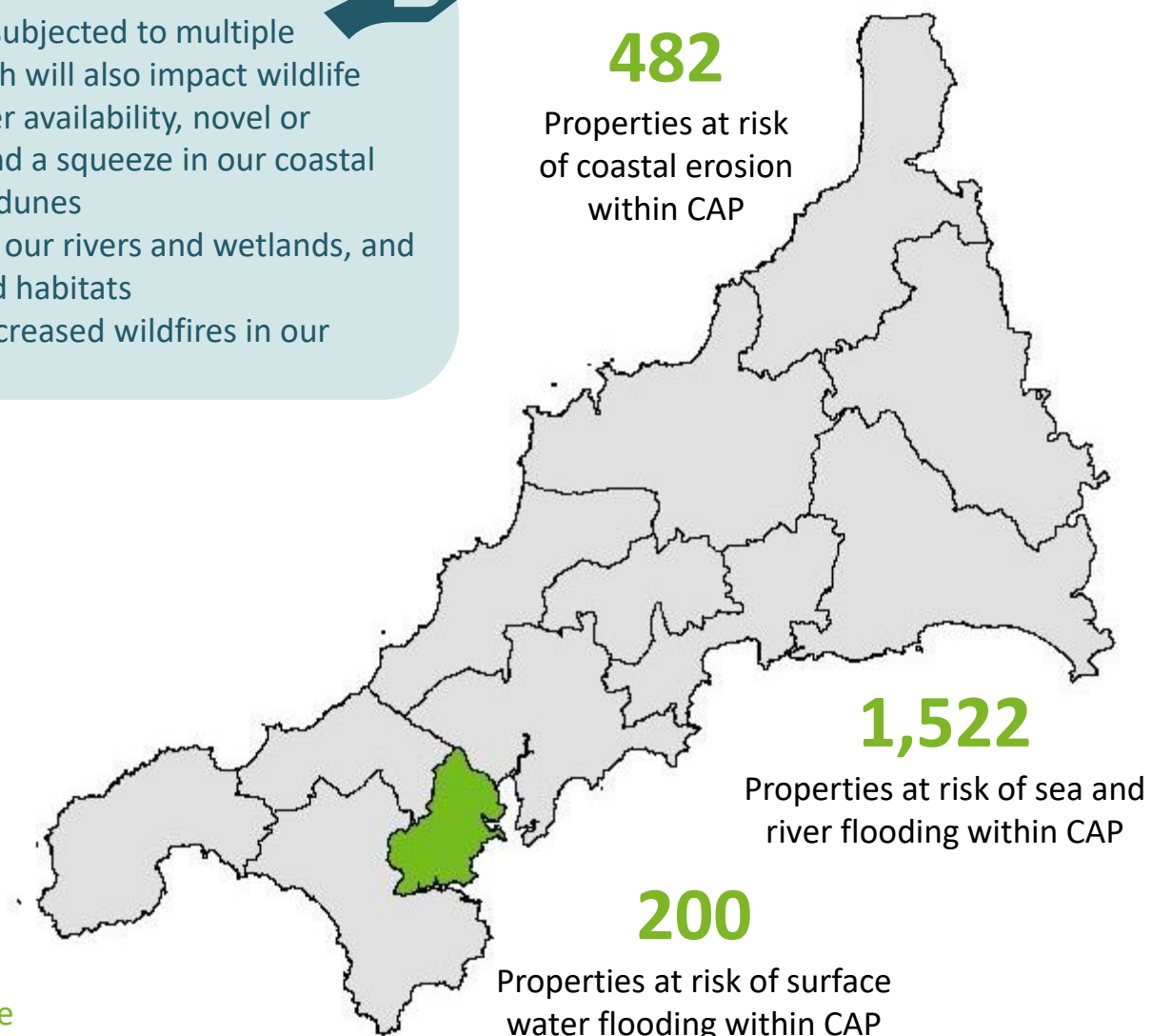
Business

- Employees could suffer from heat exhaustion and heat stroke
- Increase in extreme weather including flooding, wind and storms could cause damage to premises, power cuts, supply chain and distribution network
- There could be potential for increase insurance premium



Agriculture

- Drought may become more frequent affecting drought-sensitive crops
- Increase in heat waves may impact the health of livestock
- High intensity rainfall events may cause soil erosion and loss of topsoil
- Increased flooding may lead to locally lower arable and grassland production in low lying and coastal areas
- Increase in extreme weather has the potential to increase novel pest outbreaks and disease



Opportunities for Cornwall in a changing climate

Health and Wellbeing

- Education around what we can all do to tackle climate change
- Promote access to green and blue spaces in non-sensitive wildlife areas
- Encourage safe outdoor recreation that is respectful of wildlife
- Possible reduction of current diseases linked to current weather systems



Residential Properties and critical infrastructure

- Early engagement of the voluntary and community sector in planning for emergency response
- Housing retrofit to include installations of passive cooling measures through retrofit sufficient to address overheating risks
- Developing and building in resilience by design into new housing estates, eco-communities and infrastructure



Forestry



- Increase in commercial timber growing linked with higher temperatures and longer growing seasons

Business

- Emergence of new markets for existing and development of new products and services that respond to climate change
- Build climate and ecological resilience into business plans and apply for the Cornwall and Isles of Scilly Sustainability Awards



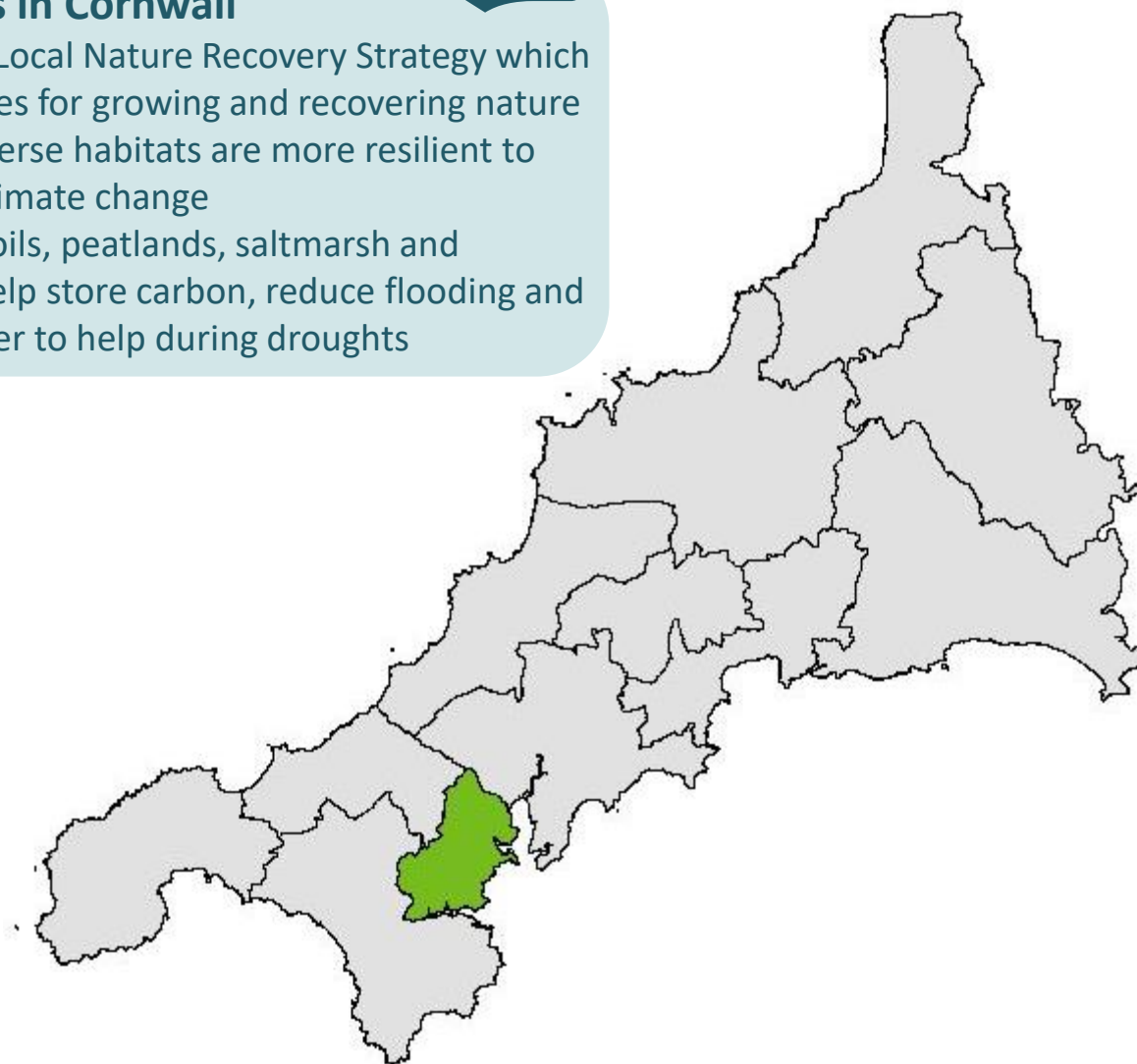
Priority habitats in Cornwall

- Delivery of the Local Nature Recovery Strategy which sets out priorities for growing and recovering nature
- Healthy and diverse habitats are more resilient to the effects of climate change
- Restoring our soils, peatlands, saltmarsh and wetlands can help store carbon, reduce flooding and store more water to help during droughts



Agriculture

- Grassland productivity is likely to benefit from a longer growing season caused by warmer temperatures and possible drier summer conditions
- Introduction of new varieties and breeds of livestock along with novel crops
- Longer growing seasons are likely to generally increase yields of root crops and leafy vegetables
- Engage with regenerative farming practices to promote healthy soils, and to build resilience from effects of droughts and flooding





Net Zero Transition

Our lifestyles have a profound impact on our planet and our choices matter. The electricity we use, the food we eat, the way we travel, and the things we buy all contribute to a person's emissions.

3.8M tCO₂e

Cornwall's Total Emissions for 2020

5.9 tCO₂e

Cornwall per person emissions for 2020

CO₂e stands for "carbon dioxide equivalent" and expresses the impact of a number of different gases collectively as a common unit.



Cornwall's per person emissions is nearly equivalent to driving around the world each year

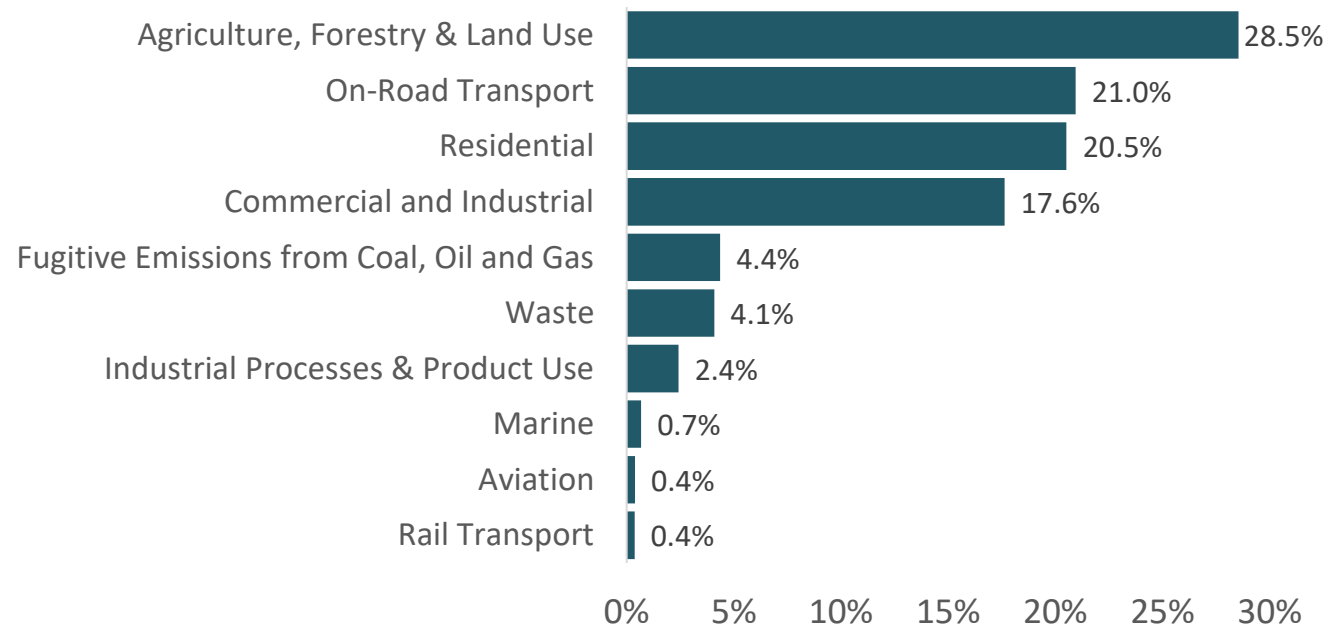
What is the Net Zero Transition and Climate Change:

Net Zero transition - a journey where we reduce greenhouse gases emissions, with any remaining emissions being balanced by sequestration (our natural environment is fantastic at this)

Climate Change – a long-term shift in global or regional climate patterns. Often climate change refers specifically to the rise in global temperatures from the mid-20th century to present.

Cornwall's emission have reduced by 23% since 2008, but our current speed of reduction is not sufficient enough for Cornwall to be Net Zero by 2030

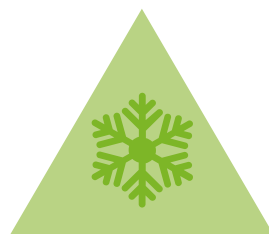
Cornwall Sector Emissions for 2020*



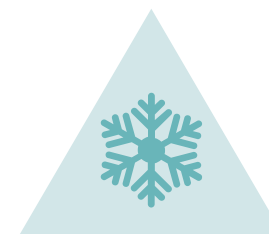
*This data is from 2020 and was impacted by Covid 19 restrictions, which is likely to be partly reversed from 2020 to 2021 as restrictions were eased.

Energy Consumption and Provision

Understanding Cornwall's energy usage and how it is supplied and managed is a vital part of ensuring we transition to net zero. **Cornwall and the Isles of Scilly are the first UK rural and island region to carry out a Local Area Energy Plan.** This is a place-based approach which will identify the most cost-effective way of delivering Net Zero for Cornwall while boosting the green economy, attracting funding and address causes of fuel poverty and sources of energy inequality. It will also build on the region's track record in renewable energy innovation and ambitions to build new green industries, such as deep geothermal energy.



14.5% of households within this CAP were fuel poor in 2021.



14.0% of households in Cornwall were fuel poor in 2021. England Average = **13.1%**

59.6%

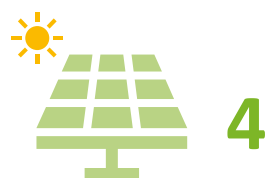
of houses within this CAP have an EPC rating of D-G* 2023.

61.5%

of houses within Cornwall have an EPC rating of D-G* 2023.

England Average = **59%**

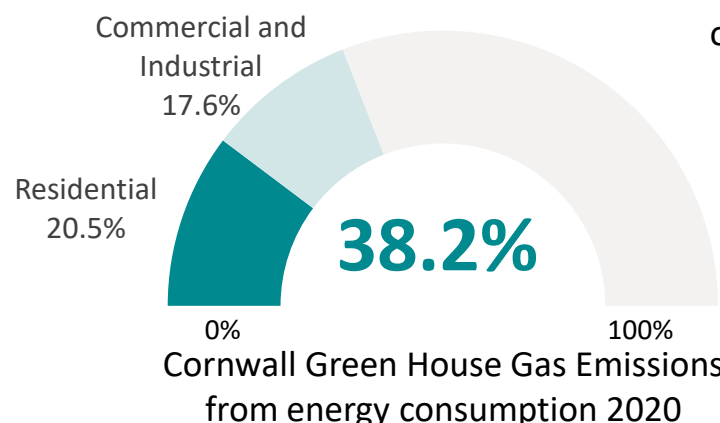
*Only includes 64% of houses in Cornwall that have an EPC rating



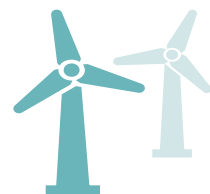
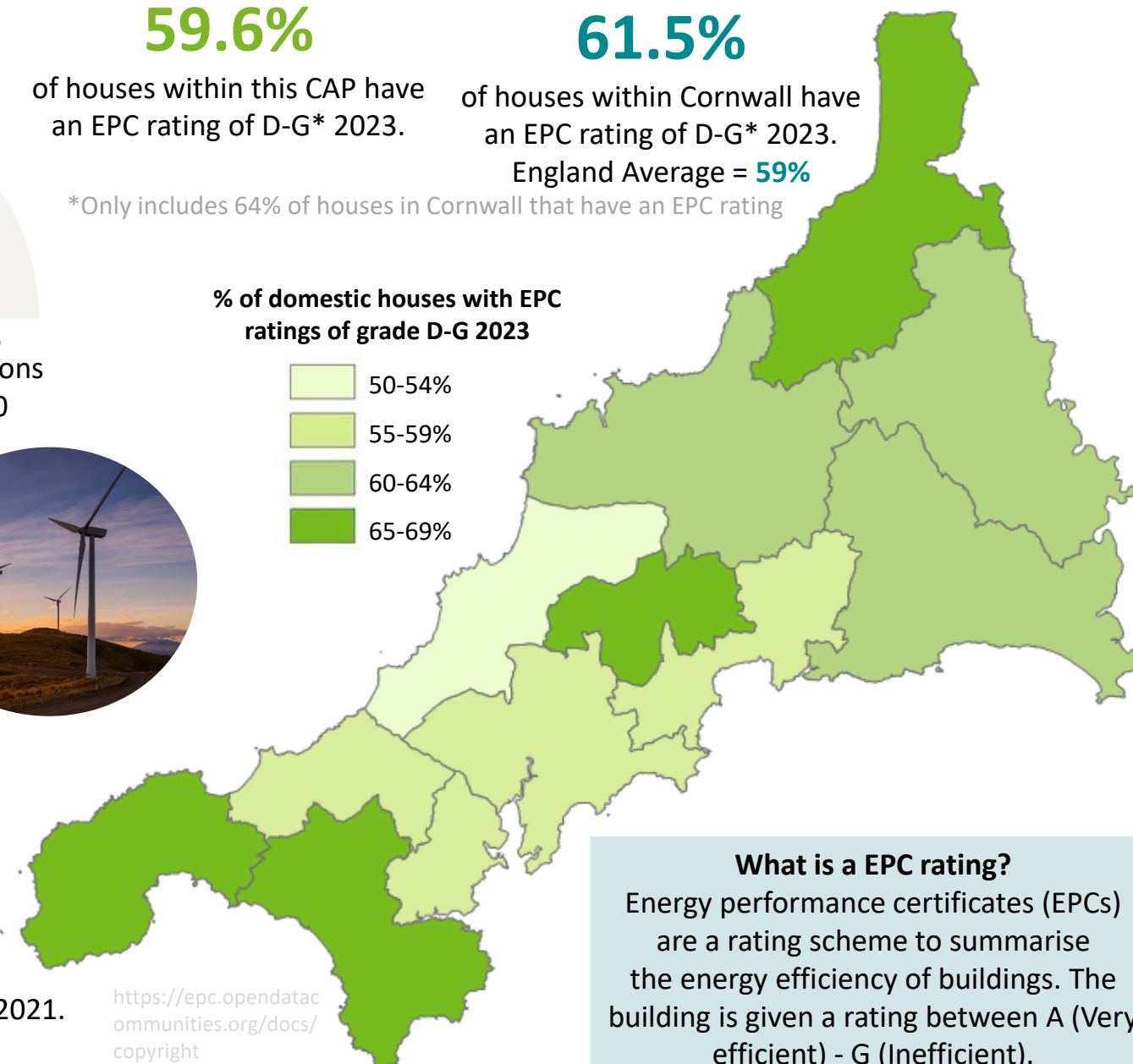
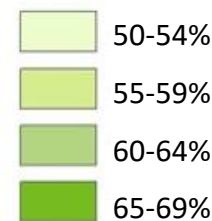
Existing Renewable Generation Assets within the CAP.

With a total of **143** in Cornwall^

^Includes asset which are under or waiting for construction



% of domestic houses with EPC ratings of grade D-G 2023



37% of Cornwall electricity demand met by renewable energy in 2021. UK Average = **40%**



47%

of homes in Cornwall are not connected to the gas network in 2021. England Average = **15%**

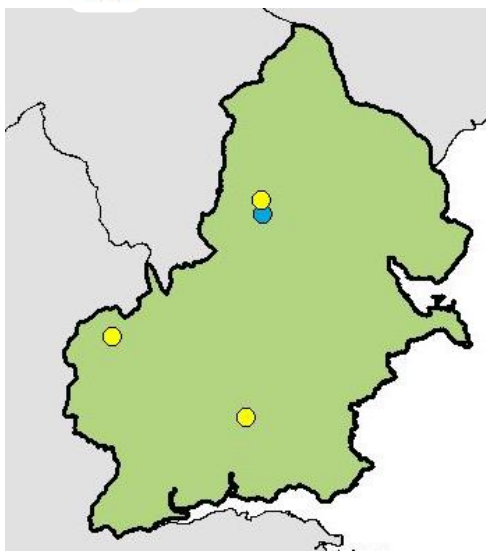
<https://epc.opendatacommunities.org/docs/copyright>

What is a EPC rating?

Energy performance certificates (EPCs) are a rating scheme to summarise the energy efficiency of buildings. The building is given a rating between A (Very efficient) - G (Inefficient).

Existing Renewable Generation Assets^

- Solar Photovoltaics
- Wind Onshore



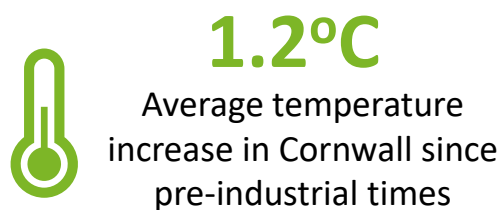
Cornwall's Ecological Emergency

Cornwall is renowned for its natural beauty. When nature flourishes, it can help fight climate change, provide us with food and jobs, and make us feel happy, healthy and connected to one another.

But nature is in trouble. We are in an ecological emergency and many of our important wildlife is under threat.

Drivers of Change:

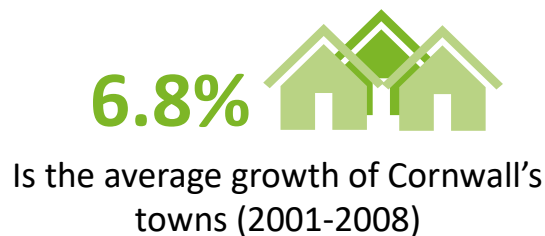
Climate Emergency



Harmful fishing practices



Development



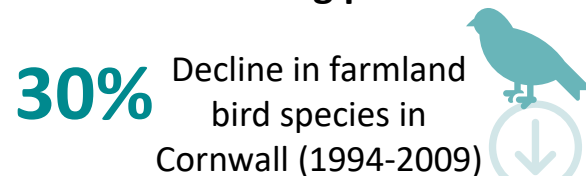
Pollution



Poor water management



Intensive and harmful farming practices



Nature in Decline:



Nearly half of terrestrial mammals are found in fewer places



Three fifths of butterflies are found in fewer places



Nearly half of breeding birds have declined

Since the 1970s there is evidence that:

21 Breeding birds

4 Vascular plants

8 Bumblebees

Have become extinct from Cornwall

Butterflies associated with farmland are decreasing

104 Seals Entangled with marine litter (2019)



Common Buzzard
20% Decline



Turtle Dove
Locally Extinct



Wall Butterfly found
in **10.9%** Fewer places



Yellow Hammer
62% Decline



Our Natural Environment Assets that can help us

When our land, rivers and seas are well-managed for nature we also benefit through improved air and water quality, increased biodiversity, improved health, wellbeing and prosperity, and more climate resilient communities.

When care is taken to recover and grow nature it can help us tackle and adapt to climate change. For example, by helping to reduce flood risks and manage droughts.

We must take steps to recover and grow our natural environment by protecting nature, restoring degraded areas, and creating new green spaces. This is where the **Local Nature Recovery Strategy** comes in. It will help us to tackle the ecological emergency by ensuring that nature is bigger, better and more joined up.

In 2023, your CAP currently contains...



6 registered parks and gardens



17% tree cover



165 Ha of Site of Special Scientific Interest

1,508 km of Cornish hedges

1.6% of Urban Green Space

25%



of rivers in good ecological condition



700 km of coastline

8%



of Cornwall's inshore waters are protected from seabed disturbance

Nearly **2%** of Cornwall's land area is covered by Ancient Woodland

1.7%



of land in a nature reserve

>650 Ha of Seagrass, Kelp, Mearl beds identified which all store carbon

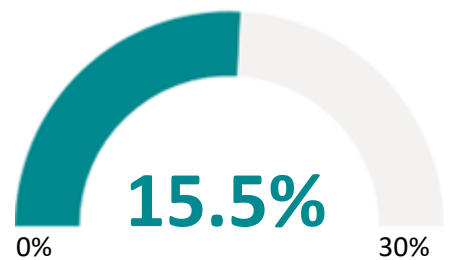


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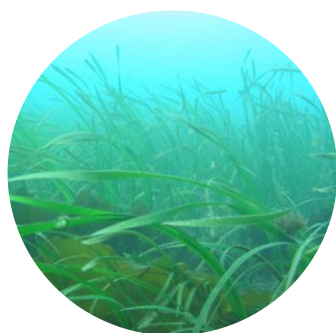
Blue Flag Beaches

Over **120 Ha** of coastal saltmarsh



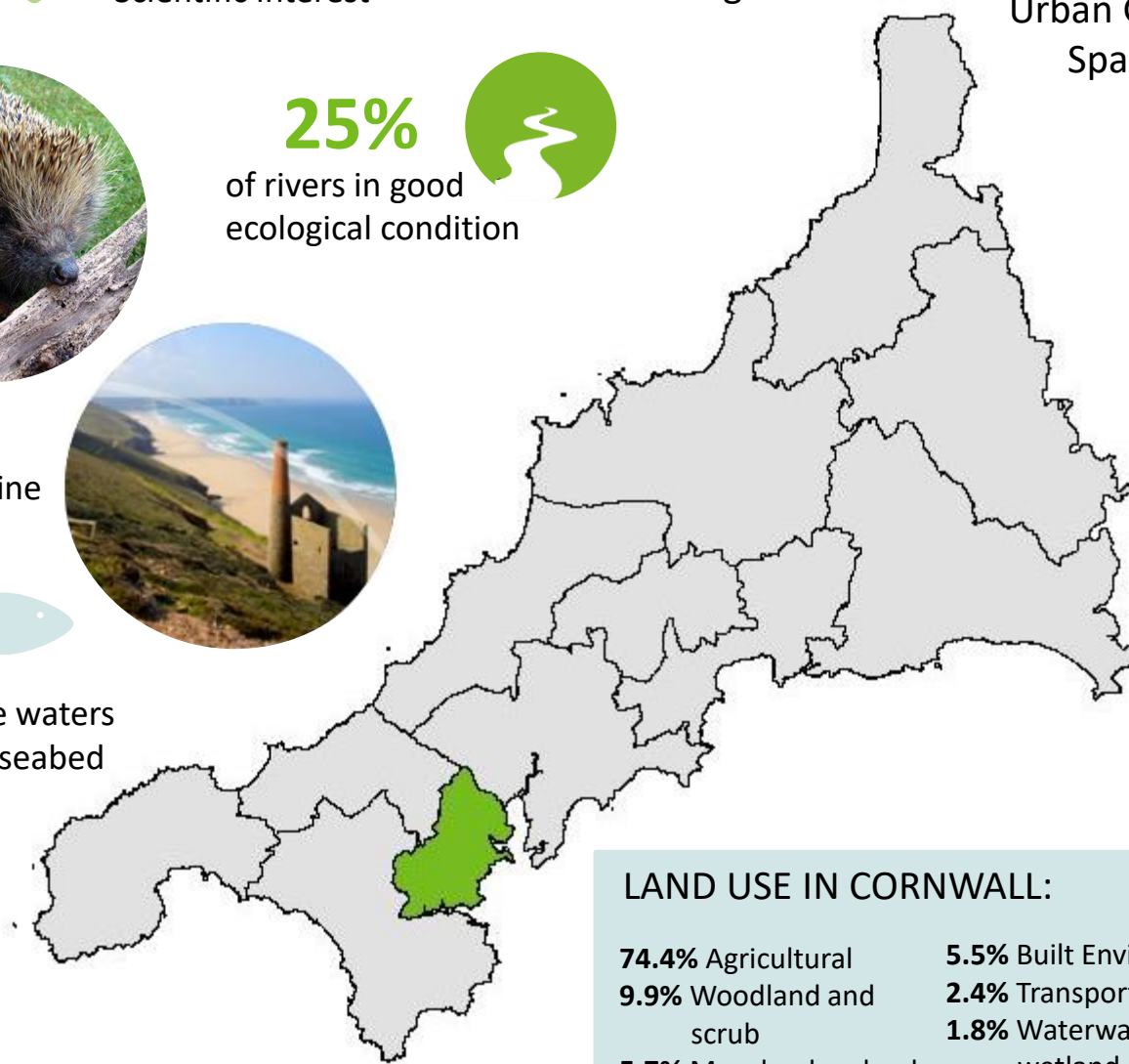
Land well-managed for nature

Nearly **30%** of the coast is intertidal mudflats



LAND USE IN CORNWALL:

74.4% Agricultural	5.5% Built Environment
9.9% Woodland and scrub	2.4% Transport
5.7% Moorland, upland and heathland	1.8% Waterways and wetland
	0.3% Other





Enabling action across Cornwall and your CAP

Climate Emergency

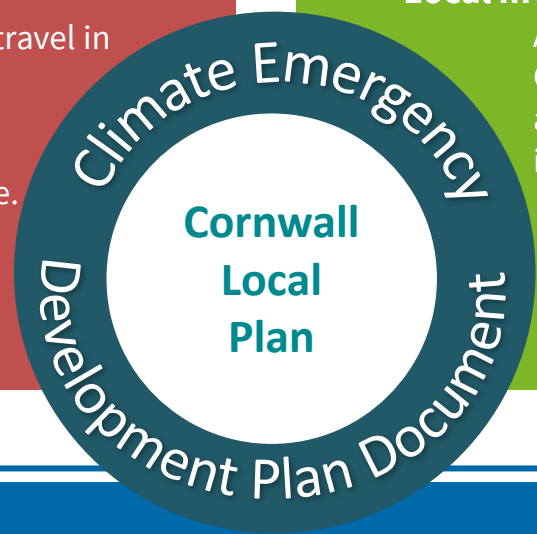


- Local Area Energy Plan**
 Is a new spatial approach that enables areas to develop decarbonize local energy systems plans. It will address the complex interactions of power, gas, heat, and transport, and the many ways in which future energy may be supplied, managed, and consumed within Cornwall and Isle of Scilly.
- Housing Decarbonisation Strategy**
 Working towards developing a Housing Decarbonisation Strategy for Cornwall, which will set out our vision and strategic approach for decarbonising Cornwall's housing stock.
- Refreshed Local Transport Plan**
 Prioritising investment in transport in Cornwall to help people choose to travel in ways that will have a low impact upon the environment and other people
- Resource and Waste Strategy**
 Supporting Cornwall's residents to reduce, re-use and recycle their waste.
- Green Growth Industrial Strategy**
 Aims to put Cornwall at the forefront of a green economy and support Cornwall's businesses to transition to low carbon practices

Ecological Emergency



- Local Nature Recovery Strategy**
 Our short term plan to recover and grow nature. This strategy takes into account the needs and priorities of communities and when completed, will contain a series of maps and actions that can be used to develop nature recovery projects.
- Forest for Cornwall**
 Aims to support and empower residents, businesses and communities to plant the right trees, in the right place for the right purpose to support climate and ecological emergency. This includes everything from planting woodlands to individual trees in gardens across Cornwall.
- Local Investment in Nature – Cornwall**
 Aims to create the conditions for improved investment in nature for Cornwall. Will work with farmers, land owners and other groups to create a portfolio of nature recovery projects, and develop a pathway for investment to reach project owners.
- Blue Carbon**
 Explores the potential of carbon capture in the county's coastal waters. Seagrass beds, Mearl and salt marsh are a vital carbon sinks. These sites have the potential to help in the fight against the climate emergency.



Environmental Adaptation



- Devon Cornwall and Isles of Scilly Adaptation Strategy**
 Regional Adaptation Strategy which sets out climate risks the South West will be subject to, and how we need to adapt to be resilient across the region
- Cornwall Climate Risk Assessment and Adaptation Strategy**
 A bespoke assessment of climate risks faced by Cornwall and the impact they will have over the next 100 years. The subsequent Adaptation Strategy will set out how we work with communities to address these risks, developing adaptation plans to ensure they are prepared and resilient in the future.
- Local Flood Risk Management Strategy**
 Outlines the responsibilities of the Risk Management Authorities in Cornwall, and the partnership working undertaken to coordinate local flood risk management.
- Shoreline Management Plan & Making Space for Sand**
 The shoreline management plan aims to manage existing and future erosion and sea flooding risk and ensure the sustainability of our coastal communities. The Making Space for Sand project will look at various sites around the Cornish coast to make sustainable sand dune systems a reality, with 40 locations initially identified for the project and 6 locations having more detailed investigation/action plans.





Links to Resources

Please contact the teams below if you have any questions about the document:

- Carbon Neutral Team: climatechange@cornwall.gov.uk
- Environmental Resilience and Adaptation Team: floodrisk@cornwall.gov.uk
- Environmental Growth and Nature Recovery Team: grow-nature@cornwall.gov.uk



Links to additional overarching resources:

- [Cornwall Local Plan](#)
- [Climate Emergency Development Plan Document \(DPD\)](#)

Links to additional Carbon Neutral resources:

- [The Carbon Neutral Challenge - Cornwall Council](#)
- [Cornwall and Isles of Scilly Local Energy Area Plan | Let's Talk Cornwall](#)
- [Winter wellbeing - Cornwall Council](#)
- [Local Transport Plan - Cornwall Council](#)
- [Resources and waste strategy](#)
- [Climate literacy training video](#)

Links to additional Environmental Growth and nature recovery resources:

- [Nature Recovery Strategy | Let's Talk Cornwall](#)
- [State of nature | Let's Talk Cornwall](#)
- [Blue Carbon | Let's Talk Cornwall](#)
- [Cornwall Council: Cornwall Climate and Nature Fund | Crowdfunder UK](#)
- [Pledge for nature | Cornwall and IOS Local Nature Partnership](#)

Links to additional Environmental Resilience and Adaptation resources:

- [Devon, Cornwall and Isles of Scilly Adaptation Strategy](#)
- [Cornwall Climate Risk Assessment](#)
- [Local Flood Risk Management Strategy](#)
- [Understanding flood risk – BeFloodReady](#)
- [Making space for sand | Let's Talk Cornwall](#)
- [Shoreline Management Plan](#)
- [Cornwall Coastal Vulnerability Zone - Interactive Map](#)