PEAK CLUSTER

# PROJECT GUIDE

Our phase 1 consultation:
Monday 12th January 2026 –
Friday 27th February 2026

# CONTENTS

# THE PURPOSE OF THIS PROJECT GUIDE

This guide provides an overview of our proposals for Peak Cluster and contains key information about our plans. It describes the main elements of Peak Cluster and how you can respond to the phase 1 consultation.

This first consultation phase is an important opportunity for people across the breadth of the project to help us shape our proposals as they develop. This project guide ensures that you have all the information you need to inform your response.

In addition to this guide, there are a range of other helpful resources for you to find out more about the project and why it is needed. These are available to view at www.peakcluster.co.uk. You can scan this QR code with your device to access our full document library on our website.

**Scan our QR code**

# PROJECT BACKGROUND

## About Peak Cluster

Peak Cluster is helping to secure the future of 40% of Britain's cement and lime production industry, anchored in Derbyshire and Staffordshire.

The project will help to protect existing jobs, and create new roles, while ensuring a reliable and sustainable supply of essential building materials for hospitals, homes, railways, and roads. It will also deliver a home-grown source of low-carbon lime – vital for purifying our drinking water and maintaining healthy soils for grazing livestock and growing crops.

The UK's cement and lime industry, concentrated in Derbyshire and Staffordshire, produces around 40% of the nation's supply. However, the manufacturing process releases significant amounts of carbon dioxide ($CO_2$) the majority of which comes from the raw materials used.

To tackle this challenge, four leading cement and lime producers have joined forces to deliver Peak Cluster. Using proven carbon capture and storage (CCS) technology, the project will capture $CO_2$ emissions at source and transport them via a new pipeline for safe, permanent storage beneath the East Irish seabed.

## Who is developing Peak Cluster?

Peak Cluster brings together cement and lime producers in Derbyshire and Staffordshire including Holcim (Cauldon), Tarmac (Tunstead), Breedon (Hope), and Buxton Lime (Tunstead).

These organisations have come together with Progressive Energy, Summit Energy Evolution and the National Wealth Fund to form Peak Cluster Limited (Ltd).

The cement and lime producers will each develop carbon capture facilities at their sites. These will link to a pipeline which will transport the captured emissions to Morecambe Net Zero (MNZ), a central carbon storage facility which will be operated by UK energy company, Spirit Energy.


MNZ | Peak Cluster is the collaboration between Spirit Energy and Peak Cluster, including the carbon capture facilities at each of the cement and lime plants, an underground pipeline, and an undersea store.

Peak Cluster Limited will be the formal applicant in the Development Consent Order application for Peak Cluster.

# PROJECT BACKGROUND

## Why is the project needed?

Holcim's Cauldon cement plant, Tarmac's Tunstead cement plant, Buxton Lime's Tunstead lime plant and Breedon's Hope cement plant produce 40% of UK's cement and lime at their manufacturing sites in Derbyshire and Staffordshire. Cement is a vital material, underpinning the construction industry, providing raw materials for roads, buildings and railways. Lime is a fundamental ingredient for many UK industries, including steel, glass and paper.

To play their part in tackling climate change, many industries are cutting emissions by switching to renewable energy or low-carbon fuels. However, the cement and lime industry faces a unique challenge: the manufacturing process unavoidably produces $CO_2$ with the majority coming from the limestone raw material. When released into the atmosphere, $CO_2$ is the single largest contributor to climate change, making it essential that we find ways to avoid these emissions. Peak Cluster will play an essential role in enabling the cement and lime industry in Derbyshire and Staffordshire to transition to the low carbon economy, by hugely reducing the environmental impact of existing manufacturing processes.

## The importance of cement and lime

**Cement** is a key ingredient in concrete, which is the most widely used human-made material on Earth. Cement is the foundation for our homes, schools and hospitals and other vital infrastructure across the UK.

**It is used for:**

- Buildings and their foundations
- Schools, hospitals and offices
- Bridges and tunnels
- Railway sleepers
- Pipelines and flood defences
- Wind turbine bases, nuclear power plants, and dams for hydropower

**Lime** is often unseen, but it supports modern life in a range of ways, from the homes we live in to the water we drink.

**It is used for:**

- Purifying tap water
- Steel, chemicals, glass and paper manufacturing
- Treating contaminated land
- Buildings and plastering
- Food production
- Cleaner air

# PROJECT BACKGROUND

## Project benefits

Peak Cluster will unlock a range of positive impacts – both locally and nationally including:

### Securing a sustainable, long-term supply of British-made essential materials

Importing cement leaves Britain vulnerable to foreign pricing and reliant on supply levels. Peak Cluster will help ensure the long-term supply of 'British-made' cement. This will reduce Britain's reliance on imported building materials, supporting the delivery of our vital infrastructure and keeping jobs, businesses, and markets secure.

### Safeguarding and creating jobs

Peak Cluster will safeguard and create jobs and boost economic growth. During construction, the project is expected to create 1,500 roles and will help to protect approximately 2,000 existing jobs at the cement and lime plants. Together, MNZ | Peak Cluster will safeguard and create around 13,000 jobs by 2050, through both direct and indirect routes.

### Supporting the local economy

Peak Cluster will help to build a sustainable future for the UK's cement and lime industry, supporting wider businesses, communities and livelihoods. MNZ | Peak Cluster will generate around £1.8 billion in value for the British economy and attract approximately £5 billion of investment in the UK.

### Bolstering sustainable British industry

Carbon capture is widely recognised as an important and established technology to decarbonise industry, and countries around the world are using carbon capture and storage to secure the future of their businesses. Peak Cluster brings together cement and lime industry leaders who recognise the importance of building a sustainable industry. Collectively they will deliver the world's largest cement decarbonisation project, establishing Britain as a global leader in the sector.

### Did you know:

The amount of cement produced within the UK is at its **lowest level since the 1950s**. This leaves us vulnerable to volatile global supply chains and overseas pricing.

**Cement imports have tripled in the last 20 years**, meaning that currently, nearly a third of these vital materials bought in Britain are produced overseas.

# DEVELOPMENT CONSENT ORDER PROCESS

Peak Cluster's onshore pipeline is classified as a Nationally Significant Infrastructure Project (NSIP). An NSIP is regarded by the UK Government to be of such high importance that consent to construct and operate it must be granted by the Secretary of State for Energy Security and Net Zero.

Peak Cluster Ltd will therefore be required to submit a type of planning application called a Development Consent Order (DCO) to the government's Planning Inspectorate. The Planning Inspectorate will examine the application and make a recommendation to the Secretary of State, who will make the final decision on whether the project can go ahead. This consenting process comes under the Planning Act 2008.

A key requirement of this process is to seek the views of national and local stakeholders, communities and landowners, and we take this obligation very seriously. Feedback we receive throughout each phase of consultation and engagement will enable us to refine our proposals ahead of submitting our application.

## Overview of the DCO process

**FROM ACCEPTANCE TO DECISION, THE WHOLE PROCESS IS EXPECTED TO LAST APPROXIMATELY 17 MONTHS.**

### PRE-APPLICATION STAGE

We will engage with national and local stakeholders, and communities close to the project to gather views on our plans and consider your feedback ahead of submitting the DCO application to the Planning Inspectorate.

▲ Current stage

### SUBMISSION

Peak Cluster Ltd submits the DCO application to the Planning Inspectorate (expected 2027).

### ACCEPTANCE

Upon receipt of Peak Cluster's DCO application, the Planning Inspectorate has up to 28 days to decide whether to accept it for examination.

### PRE-EXAMINATION

Peak Cluster Ltd will publicly notify acceptance, after which the public and key stakeholders will be able to register via the Planning Inspectorate website as interested parties by submitting relevant representations.

An examining authority is appointed by the Planning Inspectorate to evaluate the proposal. Peak Cluster Ltd and interested parties will then be invited to attend a preliminary meeting to discuss the procedure for examining our proposals, run by the examining authority.

### EXAMINATION

The examination stage will provide interested parties with the opportunity to expand on their views, through participating in public hearings and submitting written responses. This will last for a maximum period of 6 months.

### RECOMMENDATION AND DECISION

Following the examination stage, the Planning Inspectorate will make recommendations to the Secretary of State for Energy Security and Net Zero, who will make the final decision on whether to approve or refuse the application for development consent.

### POST-DECISION

There is a 6-week period to challenge the decision.

# OUR PROPOSALS

Peak Cluster proposes to construct carbon capture facilities, a pipeline to transport the captured $CO_2$ and infrastructure to process the $CO_2$ for onward transfer to Morecambe Net Zero (MNZ) for permanent offshore storage under the East Irish seabed.

**The key components of the project will be:**

### Carbon Capture facilities

Carbon capture facilities will be required at the four cement and lime plants in Derbyshire and Staffordshire. Each plant is exploring the best type of technology for its unique circumstances. The appearance and footprint of each capture facility will depend on the technology selected.

More information about each of the carbon capture facilities at the cement and lime operator sites can be found in the Derbyshire and Staffordshire section of this guide from page 18.

### Peak Cluster pipeline

We will construct around 200 kilometres of new underground onshore pipeline to transport $CO_2$ collected at the capture facilities in Derbyshire and Staffordshire to the Wirral. Once the pipeline is constructed, we will restore the land above to its original condition.

For this phase of consultation, we have identified an initial project boundary, within which the pipeline is likely to be constructed. For the majority of the pipeline route, this is about 300m wide. However, when we build the pipeline, we will only need a corridor about 30-40m wide. The specific location of the pipeline within the initial boundary has not yet been determined, and feedback provided during this consultation will help us to understand where exactly the pipeline and all associated infrastructure should be placed.

### Compression and storage

Before the captured carbon dioxide goes into permanent storage, we need to transfer it from the land to the sea. To do this, we first need to compress the $CO_2$ from the Peak Cluster pipeline at the coastal AGI so it can be injected and stored at MNZ, deep below the East Irish seabed.

For this consultation, we are exploring the development of an onshore Coastal AGI which will be constructed on the Wirral. While this is the option we are currently considering, further work is required to decide upon our preferred method of compression. Feedback received from this consultation along with ongoing assessments will help form our final preference.

### Pipeline(s) from the Coastal AGI to mean low water springs

From the Coastal AGI, $CO_2$ will be transferred offshore in one or two pipelines to mean low water springs. From this point, the $CO_2$ will be transported further offshore and stored by Spirit Energy.

The design of this offshore pipeline is still being developed, and its length will depend on the exact location of other pieces of infrastructure such as the Coastal AGI. We are also yet to confirm whether we will require one or two pipelines to transport the compressed $CO_2$ offshore. We are currently consulting on this and welcome any feedback on this option.

# OUR PROPOSALS

**Above Ground Installations**
Above Ground Installations (AGIs) will be located along the pipeline route to ensure the system runs efficiently and safely. They enable us to carry out regular checks on the pipeline and maintenance. AGIs will be remotely operated and will not be permanently manned. Search areas for AGIs have been identified within the pipeline route corridor. There are currently nine search areas along the route where we are considering placing an AGI.

**These include:**

- **Hope AGI**: located at Breedon's Hope cement works and will be used to transfer $CO_2$ from their capture facility to the pipeline.
- **Tunstead AGI**: located at Tarmac's Tunstead and will be used by Tarmac and Buxton Lime to transfer $CO_2$ from their capture facilities to the pipeline.
- **Cauldon AGI**: located at Holcim's Cauldon cement works and will be used to transfer $CO_2$ from their capture facility to the pipeline.
- **North Feeder AGI**: located south of Chapel-en-le-Frith, this will connect the pipelines which run from the Hope AGI and the Tunstead AGI.
- **Central Feeder AGI**: located south west of Macclesfield, this will connect the pipelines which run from the North Feeder AGI and the Cauldon AGI.
- **Connection AGI 1**: located close to Holmes Chapel, this provides the potential for future carbon capture plants to connect to the pipeline.
- **Connection AGI 2**: located to the south of Ellesmere Port, this provides the potential for future carbon capture plants to connect to the pipeline.
- **Connection AGI 3**: located to the west of Ellesmere Port, this provides the potential for future carbon capture plants to connect to the pipeline.
- **Coastal AGI**: located on the Wirral, this will be where the Peak Cluster pipeline and the MNZ onshore pipeline meet. This is where Spirit Energy take ownership of the $CO_2$ collected at the capture facilities, ready to transport it for permanent offshore storage. See page 27 for more information on the Coastal AGI.

**Block Valve Stations**
Block Valve Stations (BVS) will enable us to isolate specific pipeline sections to ensure safety when carrying out maintenance or to prevent danger in the unlikely event of an emergency. Early detection systems installed along the pipeline will continuously monitor for potential faults and can pinpoint their location. If an issue is detected, the relevant block valve can be remotely operated to isolate the affected section, ensuring safety and minimising disruption. We will build BVS at regular intervals along the pipeline.

## What is Morecambe Net Zero?

MNZ, a project under development by Spirit Energy, is Peak Cluster's storage partner. MNZ will see the conversion of the depleted South and North Morecambe gas fields for carbon storage. Once operational, it will become one of Europe's biggest carbon storage hubs, capable of storing 1 billion tonnes of $CO_2$.

Spirit Energy will store the $CO_2$ captured from cement and lime facilities. They will take the $CO_2$ from the Peak Cluster pipeline at a Coastal Above Ground Installation (AGI) located on the Wirral. Infrastructure proposed to be built between the Coastal AGI and a point known as mean low water springs (MLWS) – where the onshore planning regime ends – is included in this consultation.

The pipeline from MLWS, and any additional infrastructure that Spirit Energy will construct offshore, is not part of this consultation. Spirit Energy will seek a separate consent for this.

Visit Spirit Energy's website to find out more about MNZ and our partnership:

**www.spirit-energy.com/our-operations/mnz**

# PEAK CLUSTER PIPELINE DEVELOPMENT AND CONSTRUCTION APPROACH

We have undertaken a series of design reviews which included engineering and environmental considerations. Using these, we have identified an initial 300m project boundary for the Peak Cluster pipeline and the infrastructure required to build it (e.g. access roads and construction compounds) for this phase of consultation. Through further detailed engineering and environmental work, along with feedback received during this consultation, the project boundary for the pipeline will be further refined down to an approximately 100m wide boundary. We will seek further feedback on this updated boundary during our phase 2 consultation. Whilst not expected, it is possible that our ongoing work and the phase 1 consultation may identify the need for us to explore options to position the potential pipeline route outside the current 300m boundary. This would be explained in the phase 2 consultation if required.

Once the 100m pipeline route has been selected, we will develop a methodology. This will include mitigation measures to ensure the pipeline is constructed with the least possible impact to local communities. We will construct the project in line with industry best practices and specific UK regulatory requirements, ensuring full compliance with our statutory obligations.

While the pipeline will be narrower than 100m, applying for planning consent for a 100m corridor gives us flexibility to fine-tune the route as we finalise the detailed design.

**These may include:**

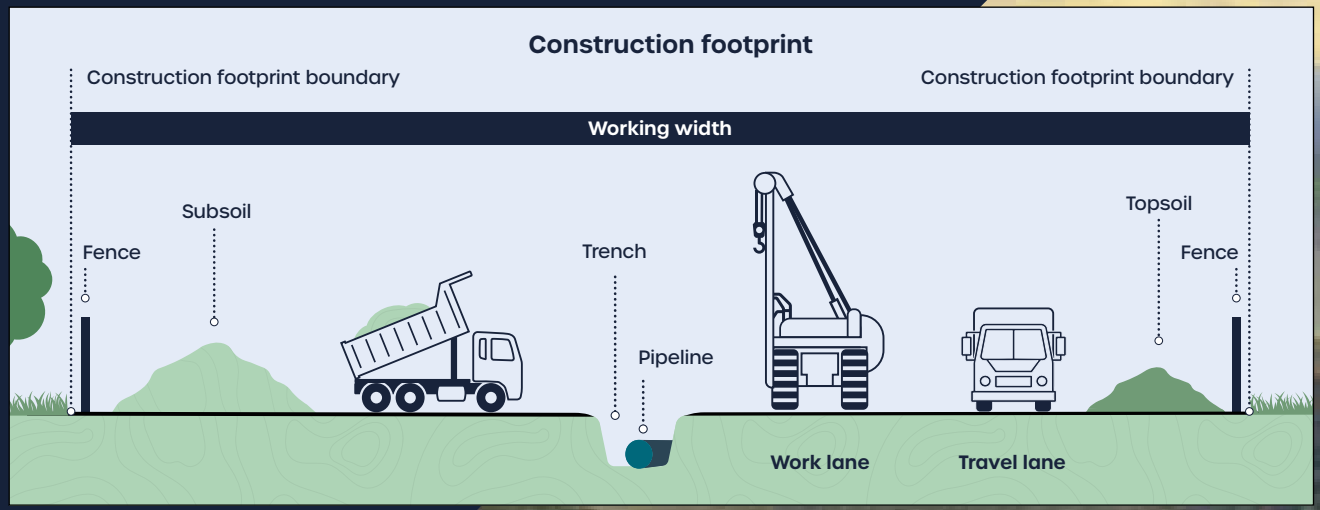
- Adjusting the route where we may need to cross or pass through existing infrastructure and geographical features such as highways, railways and ecologically sensitive areas.
- Minimising disruption to local ecology such as trees and bird habitats
- Minimising impact on historic and environmental features.
- Ensuring construction can be carried out.

# PEAK CLUSTER PIPELINE DEVELOPMENT AND CONSTRUCTION APPROACH

## How we will build the pipeline

We will primarily build the pipeline using open-cut trench installation. During construction, we will first establish a working width, typically ranging from 30 to 40m. This will be the physical area within which the pipeline will be laid. Sections of the pipeline will first be constructed at surface level. We will then excavate a trench for the pipe to be lowered into and fill it with the excavated soil. This work is coordinated to ensure the pipeline trench is open for as little time as possible, usually less than two weeks, for any individual section.

The working width will remain open so long as access along the pipeline route in that area is required, typically 6 months, with some areas being open longer depending on the access requirements of the surrounding pipeline sections. We will repeat the pipeline construction process in sections along the entire route.



# PEAK CLUSTER PIPELINE DEVELOPMENT AND CONSTRUCTION APPROACH

At some sections of the route, open-trench installation will not be possible due to existing obstacles. We will need to use alternative construction techniques at these points. Trenchless construction is typically required at crossings of motorways and major highways, railway infrastructure, ecologically sensitive areas (e.g. Sites of Special Scientific Interest, ancient woodland) and major water courses (e.g. main rivers, canals).

**The most common trenchless installation techniques are:**

- **Horizontal directional drilling**: typically used in areas with stable ground conditions where we need to lay a long section of pipe underneath an existing piece of infrastructure, such as a road or railway line.
- **Auger boring**: typically used where short crossings are required at shallow depths in favourable ground conditions.
- **Micro-tunnelling**: typically used where above-ground infrastructure is sensitive to settlement, or where ground conditions are not suited to other methods as it can help to prevent ground movement.

The chosen trenchless installation techniques will ultimately be determined by several factors. These include the feature to be crossed, agreement with local landowners and stakeholders, ground conditions and the length and depth of the crossing required. The points along the route that require this type of installation will not be defined until we have completed our detailed designs for the entire route.

More information about how we propose to build the pipeline can be found in **section 3.2 of the Scoping Report**, which you can read here: **www.peakcluster-consultation.co.uk**

# PROJECT REGIONS: STAFFORDSHIRE AND DERBYSHIRE, CHESHIRE, WIRRAL

## Overview of the project

To help those who would like to be involved in the consultation navigate the project and share feedback, we have grouped the proposed pipeline route into three regions: Staffordshire and Derbyshire, Cheshire, and Wirral.

Within these regions, we have subdivided the route into sections 1 to 10. Where we can, we have organised the sections around major infrastructure and local authority areas.

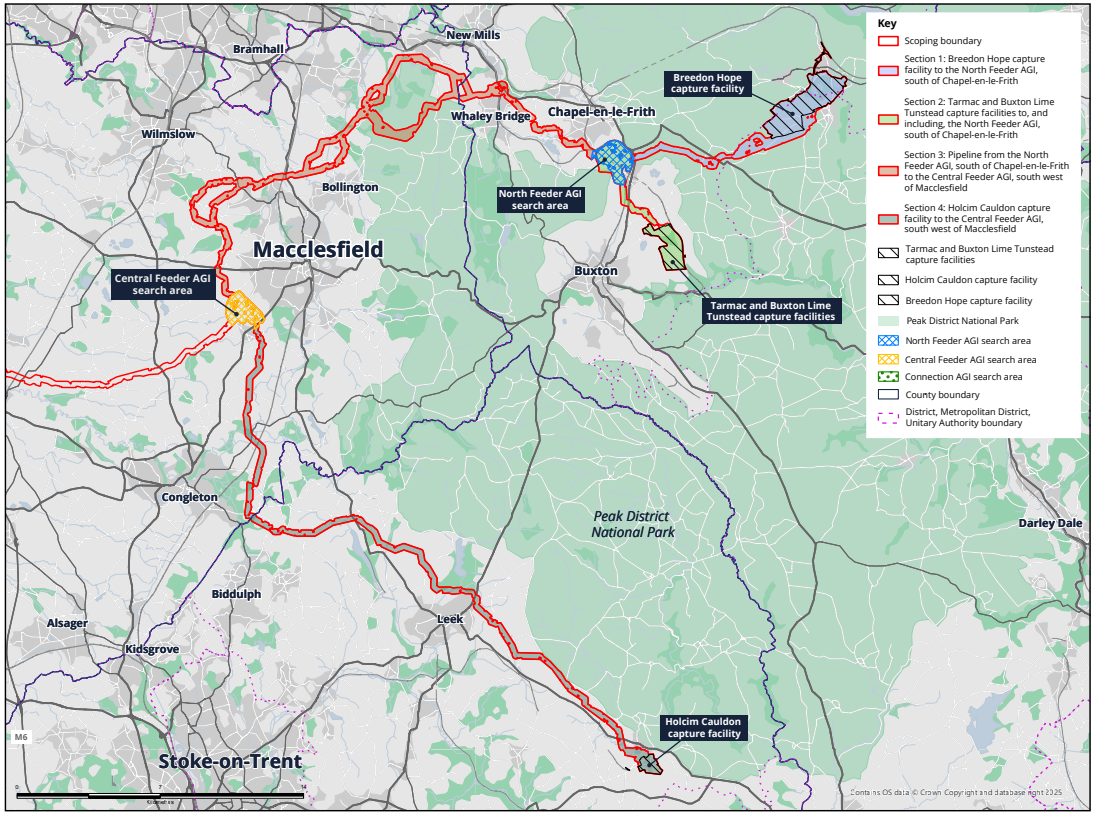
In order for you to find out more about the parts of the project that are of most interest to you, and learn more about the infrastructure proposed in those locations, we have provided maps and information for each section.

# Staffordshire and Derbyshire region

The $CO_2$ will be captured at the cement and lime plants in Staffordshire and Derbyshire and transferred into the Peak Cluster pipeline for transportation and storage. This region will host key infrastructure, including the four carbon capture facilities, Above Ground Installations (AGIs), and the start of the Peak Cluster pipeline. We have subdivided the Staffordshire and Derbyshire region into four sections.

For a more detailed look at the Staffordshire and Derbyshire, please visit:

- **Section 1 (page 18)**: Breedon Hope capture facility to the North Feeder AGI, south of Chapel-en-le-Frith
- **Section 2 (page 19)**: Tarmac and Buxton Lime Tunstead capture facility, to and including the North Feeder AGI, south of Chapel-en-le-Frith
- **Section 3 (page 21)**: Pipeline from the North Feeder AGI, south of Chapel-en-le-Frith to the Central Feeder AGI, south west of Macclesfield
- **Section 4 (page 22)**: Holcim Cauldon capture facility to the Central Feeder AGI, south west of Macclesfield

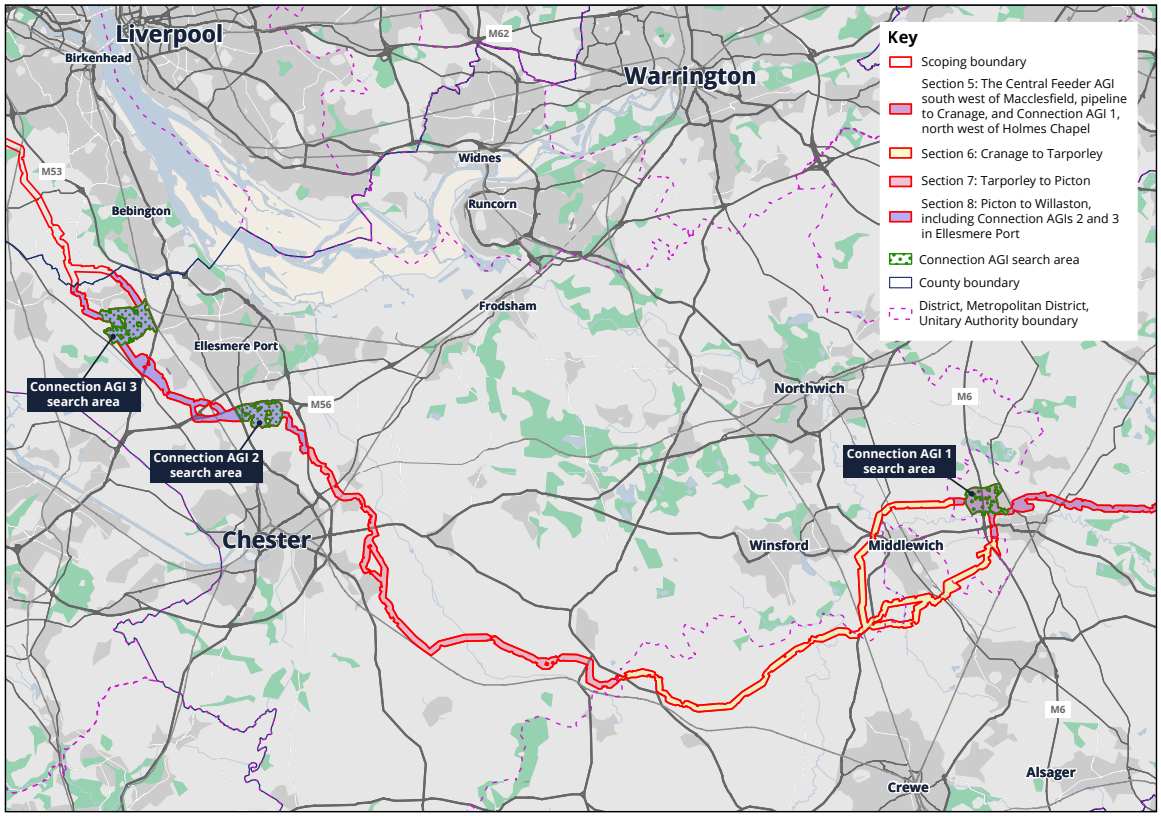


# Cheshire region

This region will host the pipeline and the Central Feeder AGI, which connects the pipelines which run from the North Feeder AGI and the Holcim Cauldon carbon capture facility. It also includes Connection AGIs 2 and 3, which will allow for the potential future connection of other carbon capture plants. We have subdivided the Cheshire region into four sections.

For a more detailed look at the Cheshire region of the route, please visit:

- **Section 5 (page 23)**: The Central Feeder AGI, south west of Macclesfield, pipeline to Cranage, and Connection AGI 1, north west of Holmes Chapel
- **Section 6 (page 24)**: Cranage to Tarporley
- **Section 7 (page 25)**: Tarporley to Picton
- **Section 8 (page 26)**: Picton to Willaston, including Connection AGIs 2 and 3 around Ellesmere Port

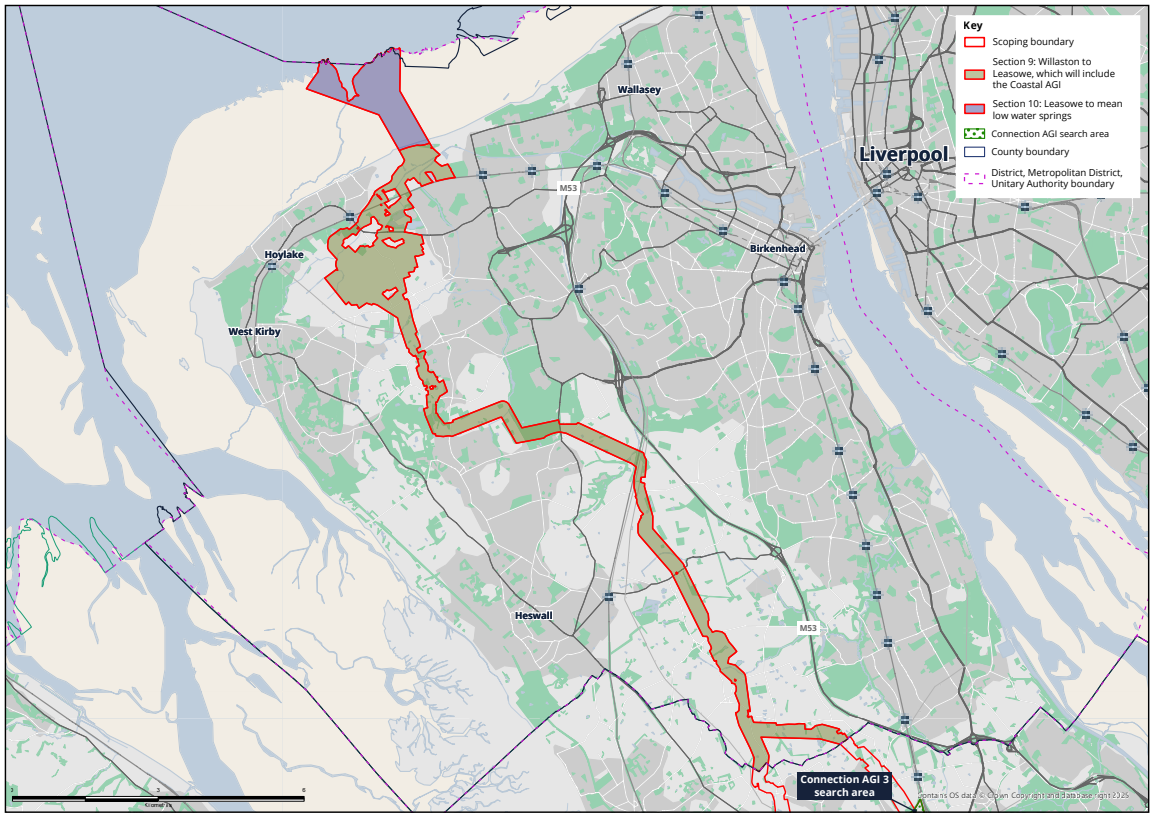


# Wirral region

The Wirral region includes the pipeline, Coastal AGI, and the section of the offshore pipeline to mean low water springs where it transfers to Morecambe Net Zero offshore infrastructure. The Wirral region includes two sections.

For a more detailed look at the Wirral region of the route, please visit:

- **Section 9 (page 27)**: Willaston to Leasowe, which will include the Coastal AGI in north Wirral
- **Section 10 (page 28)**: Leasowe in the Wirral to mean low water springs



# Considerations

In developing our proposals for the project, we have carried out several years of research, planning, feasibility studies and assessments. This has included detailed environmental and engineering routing work, which took into account many environmental and engineering factors. Our preferred route and location options for the project have been informed by these environmental and engineering considerations.

**We considered key environmental matters including:**

- International conservation designations (such as UNESCO World Heritage Sites and Ramsar sites)
- National Parks
- Areas of Outstanding Natural Beauty (AONBs)
- Ancient woodlands
- Priority habitats
- High value heritage assets (such as scheduled monuments and Grade I listed buildings)
- Grade 1 (excellent quality) and grade 2 (very-high quality) agricultural land
- Green belt land.

**From an engineering perspective, we focused on:**

- Existing built infrastructure
- Private homes and gardens
- Terrain and land use constraints which could potentially cause difficulties during construction
- Major highway crossings
- Rail line crossings
- Major watercourse crossings
- Ground conditions
- Densely populated areas
- Existing and future built developments
- Gas pipelines
- Overhead power lines.

Peak Cluster is classified as an Environmental Impact Assessment (EIA) development, meaning we will continue to conduct a range of surveys and assessments over the coming years to identify and evaluate the potential effects that the project may have on the environment and local communities.

With this information, along with the feedback we receive from stakeholders and the local community, we will continue to develop the project in a way that aims to avoid, reduce, mitigate or, if possible, offset any potential effects by choosing the best possible route and implementing mitigation measures, where required.

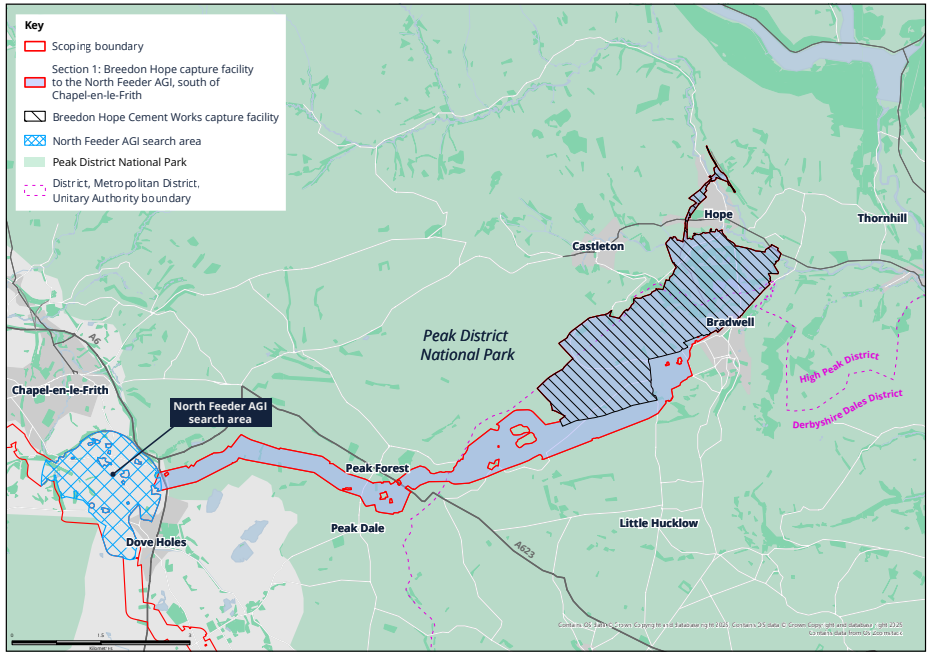
For further information of the EIA process and how it will inform the ongoing development of the project, please visit **page 31** of this guide.

# Staffordshire and Derbyshire region: Sections 1 to 4 explained

## Section 1: Breedon Hope capture facility to the North Feeder AGI, south of Chapel-en-le-Frith

Section 1 includes the Breedon Hope Cement Works capture facility (Breedon Hope CCS), which will be built at Breedon's existing Hope site, in Derbyshire. It also includes part of the pipeline which will carry captured $CO_2$ to the North Feeder AGI, located to the south of Chapel-en-le-Frith.

This section spans Derbyshire Dales District Council, High Peak District Council, Derbyshire County Council, the Peak District National Park Authority and the East Midlands Combined County Authority.




### Breedon Hope capture facility

Breedon – a Peak Cluster partner – will operate Breedon Hope CCS, on Breedon's existing cement plant, located to the south west of Hope in Derbyshire. Breedon will build new infrastructure, and reconfigure existing structures, to deliver a new facility that will collect carbon dioxide as it is emitted during the cement manufacturing process. Construction of Breedon Hope CCS is expected to begin in 2029 and is anticipated to take approximately 36 months.

**Breedon Hope CCS will include:**

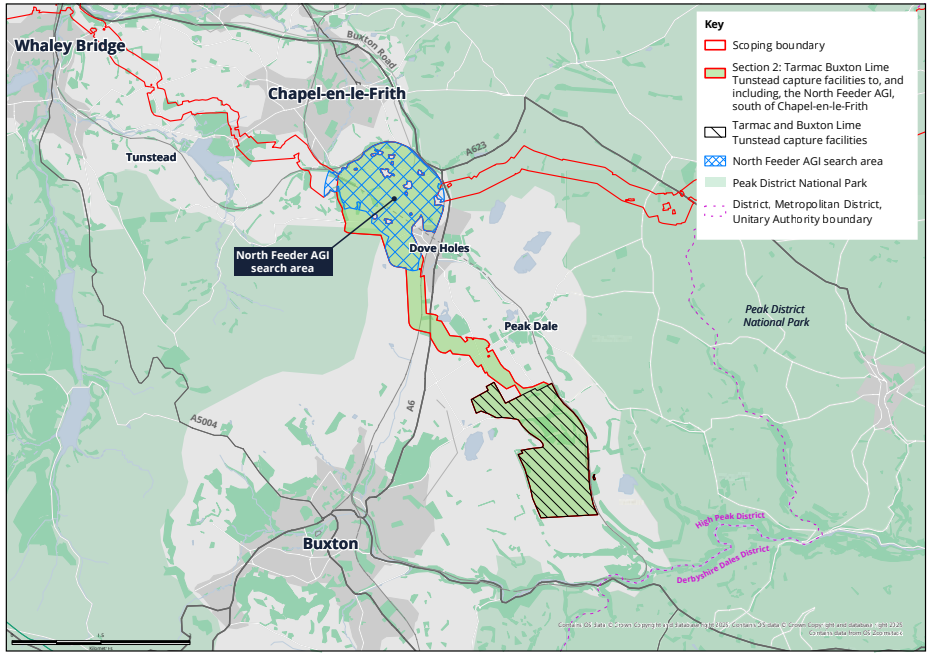
- $CO_2$ capture facility
- Parking, access and maintenance routes for the facility
- New chemical storage areas, vessels and storage tanks
- Reconfiguration of existing infrastructure
- New utility infrastructure or reinforcements to existing networks
- New AGI to connect the gas from the capture facility to the pipeline
- Landscaping and drainage areas, including biodiversity enhancements
- Normal, emergency, and escape lighting.

# Staffordshire and Derbyshire region: Sections 1 to 4 explained

## Section 2: Tarmac and Buxton Lime Tunstead capture facilities to, and including, the North Feeder AGI, south of Chapel-en-le-Frith

Section 2 includes the Tarmac Tunstead Cement Works capture facility, and the Buxton Lime capture facility, located at Tarmac's Tunstead site, to the north east of Buxton, in Derbyshire. This section also includes the North Feeder AGI, located to the south of Chapel-En-Le-Frith, and the pipeline connecting the capture facilities to this.

This section spans High Peak District Council, Derbyshire County Council and the East Midlands Combined County Authority.




### Tarmac Tunstead Capture Facility

Tarmac – a Peak Cluster partner – will operate Tarmac Tunstead CCS, located near Buxton in Derbyshire. Tarmac will build new infrastructure, and reconfigure existing structures, to deliver a new facility that will collect carbon dioxide as it is emitted during the cement manufacturing process. Construction of the Tarmac Tunstead CCS is expected to begin in 2029 and is anticipated to take approximately 28 months.

**Tarmac Tunstead CCS will include:**

- $CO_2$ capture facility
- Parking, access and maintenance routes for facility (which will remain within the current site boundary)
- New and reconfigured existing infrastructure as part of Tarmac Tunstead development plans
- New utility infrastructure or reinforcements to existing networks
- A new AGI to connect the gas from the capture facility to the Peak Cluster pipeline
- Landscaping and drainage areas, including biodiversity enhancements
- Normal, emergency and escape lighting.

# Staffordshire and Derbyshire region: Sections 1 to 4 explained

## Buxton Lime Tunstead capture facility

Buxton Lime – a Peak Cluster partner – will operate Buxton Lime CCS on their lime plant, which is within Tarmac's Tunstead Site, located in Buxton, Derbyshire.

Please see page 19 for more information about Tarmac's plans at the Tunstead site. Construction for this facility is expected to begin at the latest in 2029 and is anticipated to take approximately 34 months.

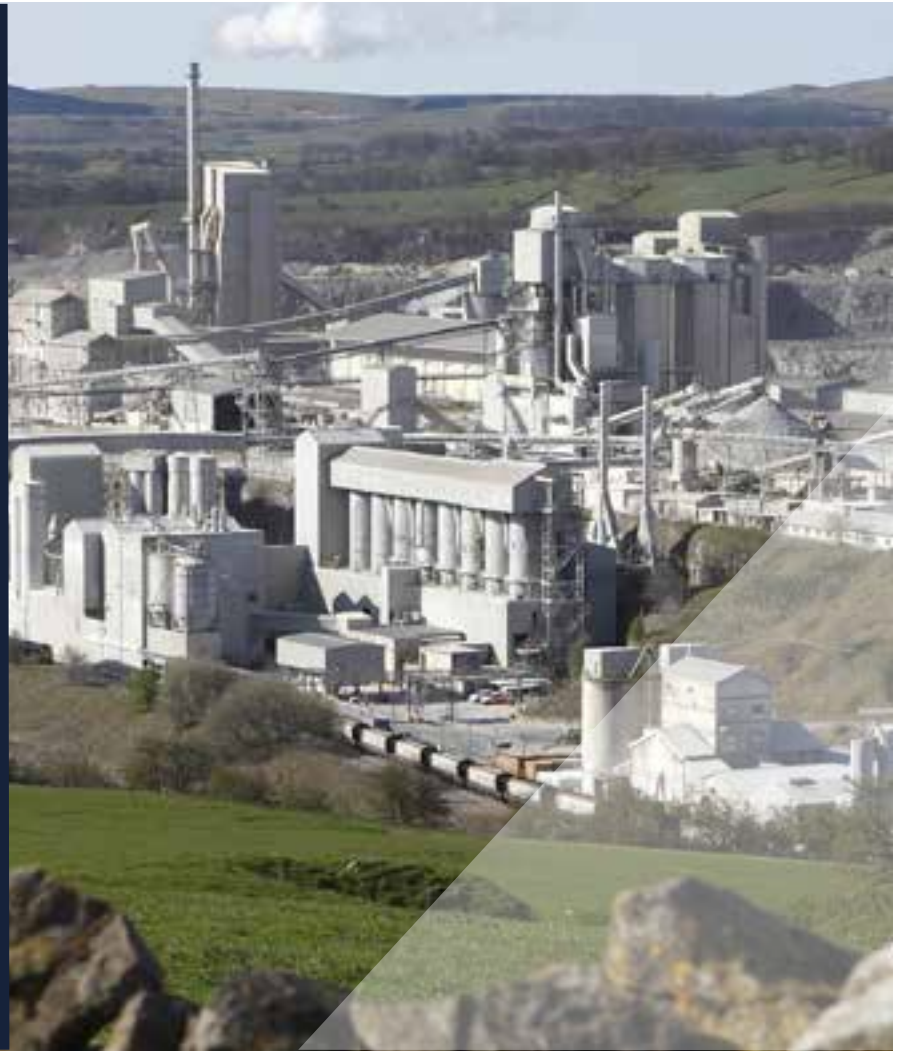
**Buxton Lime CCS will include:**

- $CO_2$ capture facility
- New Eco lime kilns
- Parking, access and maintenance routes (which will remain within the existing Tunstead site boundary)
- New and reconfigured existing infrastructure
- New utility infrastructure or reinforcements to existing networks
- Connection with Tunstead AGI to connect the $CO_2$ from the capture facility to the pipeline
- Landscaping and drainage areas, including biodiversity enhancements
- Normal, emergency and escape lighting.

## North Feeder AGI, south of Chapel-en-le-Frith

Positioned south of Chapel-en-le-Frith, the North Feeder AGI will connect Breedon Hope CCS Tarmac Tunstead CCS and Buxton Lime CCS to the main pipeline. We will use the feedback provided during this consultation to further refine the preferred location for the AGI and will provide more information at our next phase of consultation.

Please see page 9 for more information about AGIs.

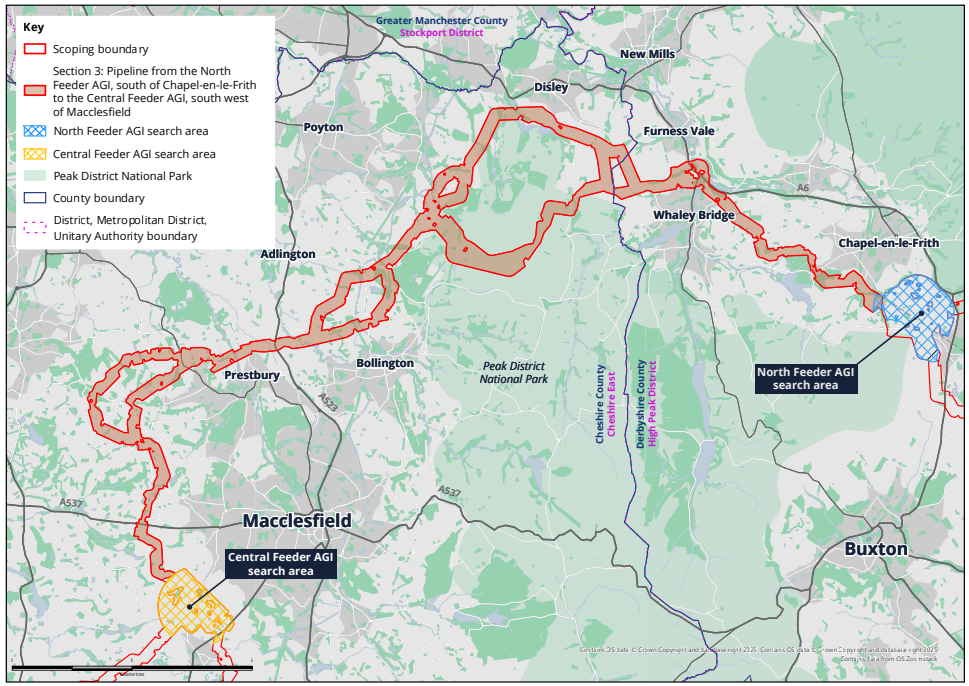


# Staffordshire and Derbyshire region: Sections 1 to 4 explained

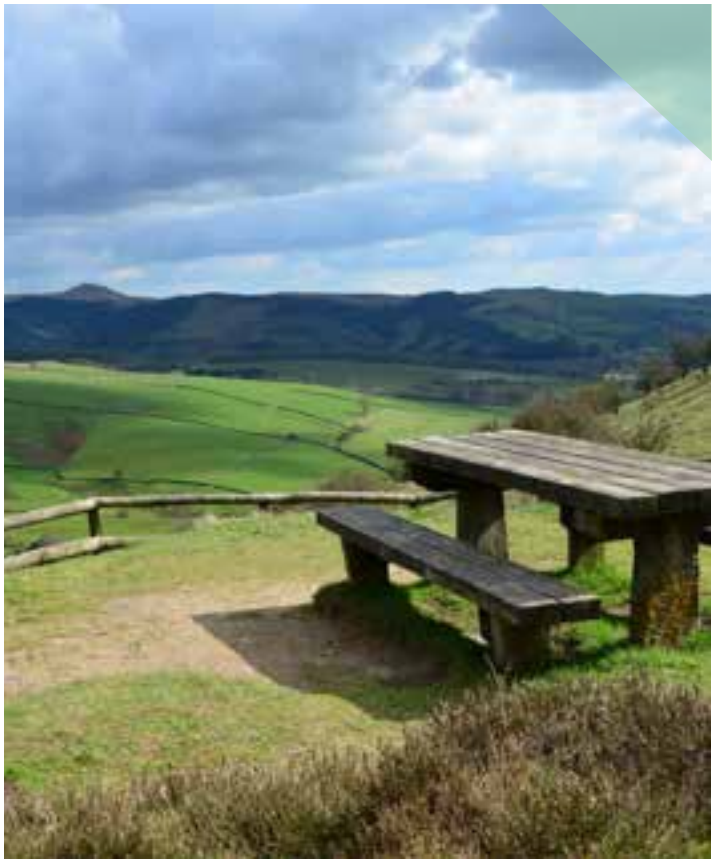
## Section 3: Pipeline from the North Feeder AGI, south of Chapel-en-le-Frith to the Central Feeder AGI, south west of Macclesfield

Section 3 includes the pipeline which runs from the North Feeder AGI, located to the south of Chapel-en-le-Frith in Derbyshire, through to the Central Feeder AGI, south west of Macclesfield.

This section spans High Peak Local Authority, Derbyshire County Council, Cheshire East Council, Peak District National Park Authority and the East Midlands Combined County Authority.




In this section, we have identified different options for the pipeline route. We will use your feedback to refine our plans to one preferred option.

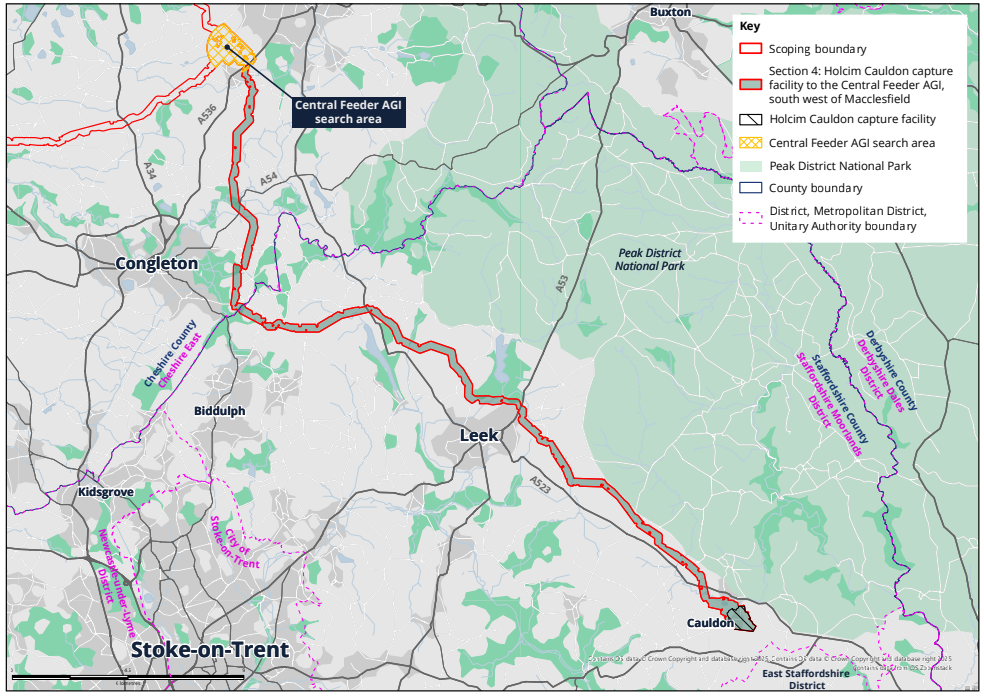


# Staffordshire and Derbyshire region: Sections 1 to 4 explained

## Section 4: Holcim Cauldon capture facility to the Central Feeder AGI, south west of Macclesfield

Section 4 includes the Holcim Cauldon capture facility, located near Cauldon, Staffordshire, and the pipeline which passes north of Leek and Congleton, before it reaches the Central Feeder AGI, south west of Macclesfield.

This section spans Staffordshire County Council, Staffordshire Moorlands District Council and Cheshire East Council.




### Holcim Cauldon capture facility

Holcim – a Peak Cluster partner – will operate Holcim Cauldon CCS, located near Waterhouses in the south of the Staffordshire Peak District. Holcim will build new infrastructure, and reconfigure existing structures, to deliver a new facility that will collect $CO_2$ as it is emitted during the cement manufacturing process. Construction of Holcim Cauldon CCS is expected to begin in 2029 and is anticipated to take approximately 36 months.

**Holcim Cauldon CCS will include:**

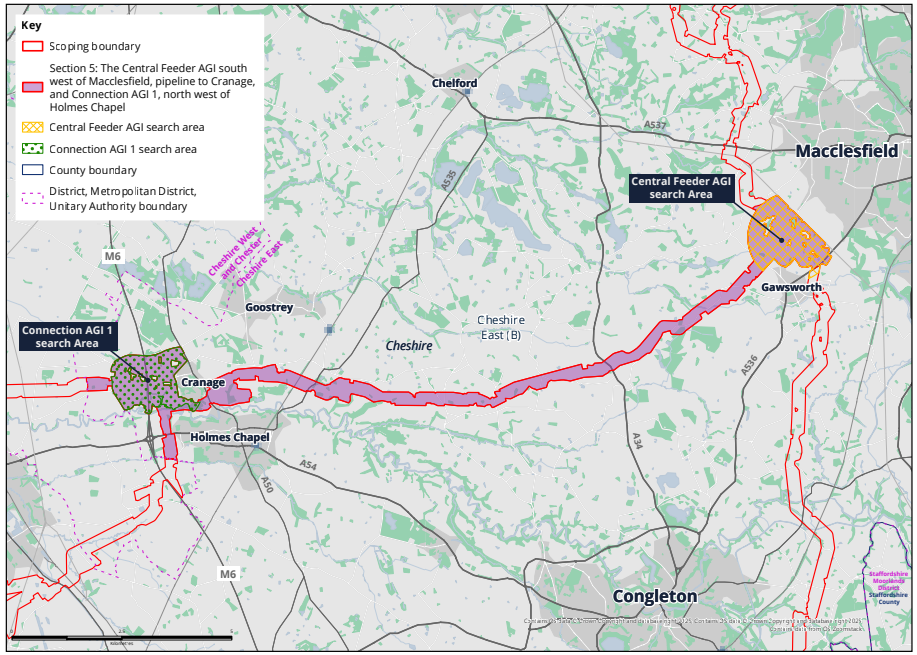
- $CO_2$ capture facility
- Parking, access and maintenance routes
- New chemical storage areas, vessels and storage tanks
- New and reconfigured existing infrastructure
- New utility infrastructure or reinforcements to existing networks
- a new AGI to connect $CO_2$ from the Holcim Capture Facility to the pipeline
- Landscaping and drainage areas including biodiversity enhancements
- Normal, emergency, and escape lighting.

# Cheshire: Sections 5 to 8 explained

## Section 5: The Central Feeder AGI south west of Macclesfield, pipeline to Cranage, and Connection AGI 1, north west of Holmes Chapel

Section 5 includes the Central Feeder AGI, located to the south west of Macclesfield in Cheshire, which will connect the pipelines which run from the North Feeder AGI and the Holcim Cauldon capture facility. It also includes the pipeline which runs from the Central Feeder AGI and Connection AGI 1, located to the north west of Holmes Chapel in Cheshire.

This section spans Cheshire West and Chester Council and Cheshire East Council.

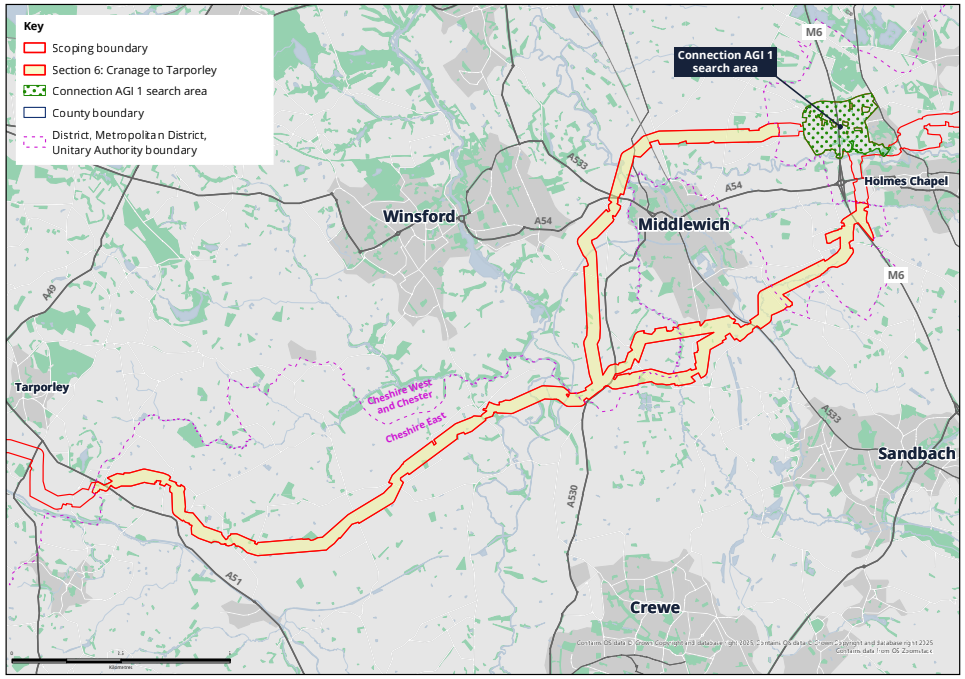



# Cheshire: Sections 5 to 8 explained

## Section 6: Cranage to Tarporley

Section 6 includes pipeline only, running from Byley Lane near Cranage, through to Vale Road, near Alpraham, south east of Tarporley in Cheshire. We have identified two potential pipeline routes in the Middlewich area – one which runs to the north of the town, and one which runs to the south. We will use the feedback provided during this consultation to further refine the preferred location and will provide more information at our next phase of consultation.

This section spans Cheshire West and Chester Council and Cheshire East Council.




In this section, we have identified different options for the pipeline route. We will use your feedback to refine our plans to one preferred option.

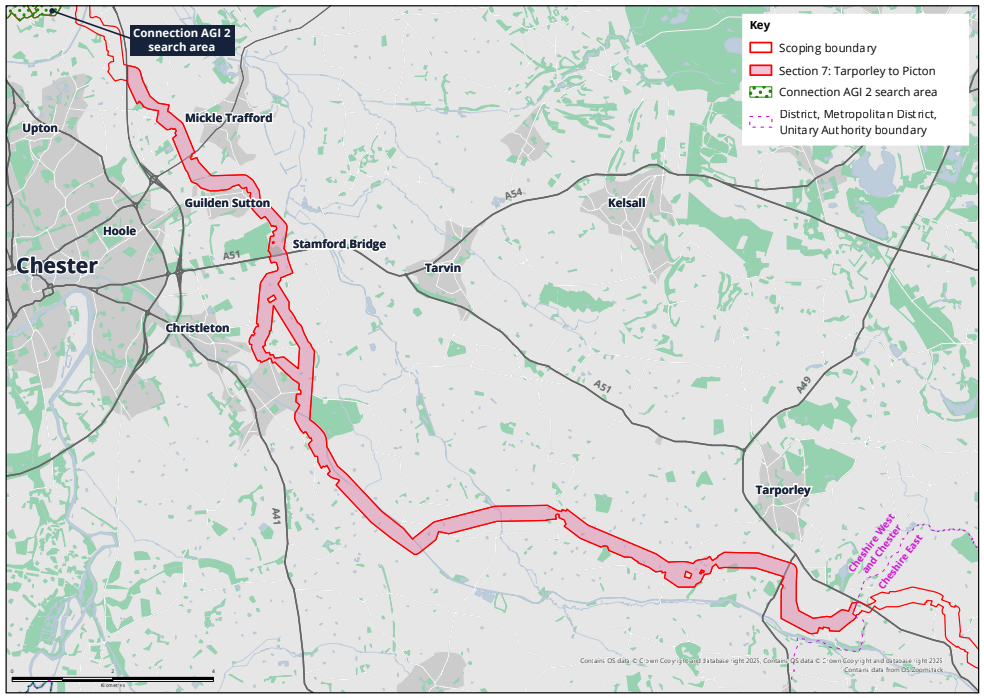
# Cheshire: Sections 5 to 8 explained

## Section 7: Tarporley to Picton

Section 7 includes pipeline only, running from Vale Road, near Alpraham, south east of Tarporley in Cheshire, to the east side of the M53, near Picton.

This section is in Cheshire West and Chester Council.

In this section, we have identified different options for the pipeline route. We will use your feedback to refine our plans to one preferred option.



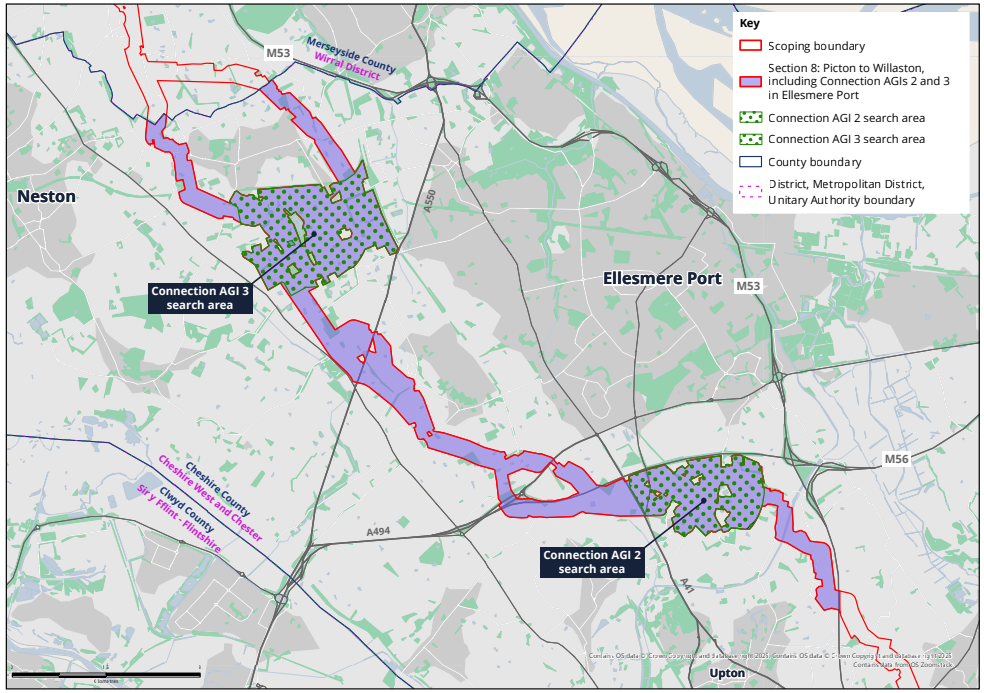

# Cheshire: Sections 5 to 8 explained

## Section 8: Picton to Willaston, including Connection AGIs 2 and 3 in Ellesmere Port

Section 8 includes the pipeline from the east side of the M53, near Picton to Willaston in Cheshire, passing under the motorway. We have identified two potential pipeline routes in both the Backford Cross area, and in the Willaston area. We will use the feedback provided during this consultation to further refine the preferred location and will provide more information at our next phase of consultation.

Connection AGIs 2 and 3 will also be located along the route in section 8, in the Ellesmere Port area.

This section is in Cheshire West and Chester Council.




### Connection AGIs 2 and 3

Connection AGI 2 and Connection AGI 3 will be located to the south and west of Ellesmere Port respectively. These AGIs will provide the potential for future carbon capture plants to connect to the pipeline. We will use the feedback provided during this consultation to further refine the preferred location for these AGIs, and will provide more information at our next phase of consultation.

Please see page 9 for more information about AGIs.

In this section, we have identified different options for the pipeline route. We will use your feedback to refine our plans to one preferred option.

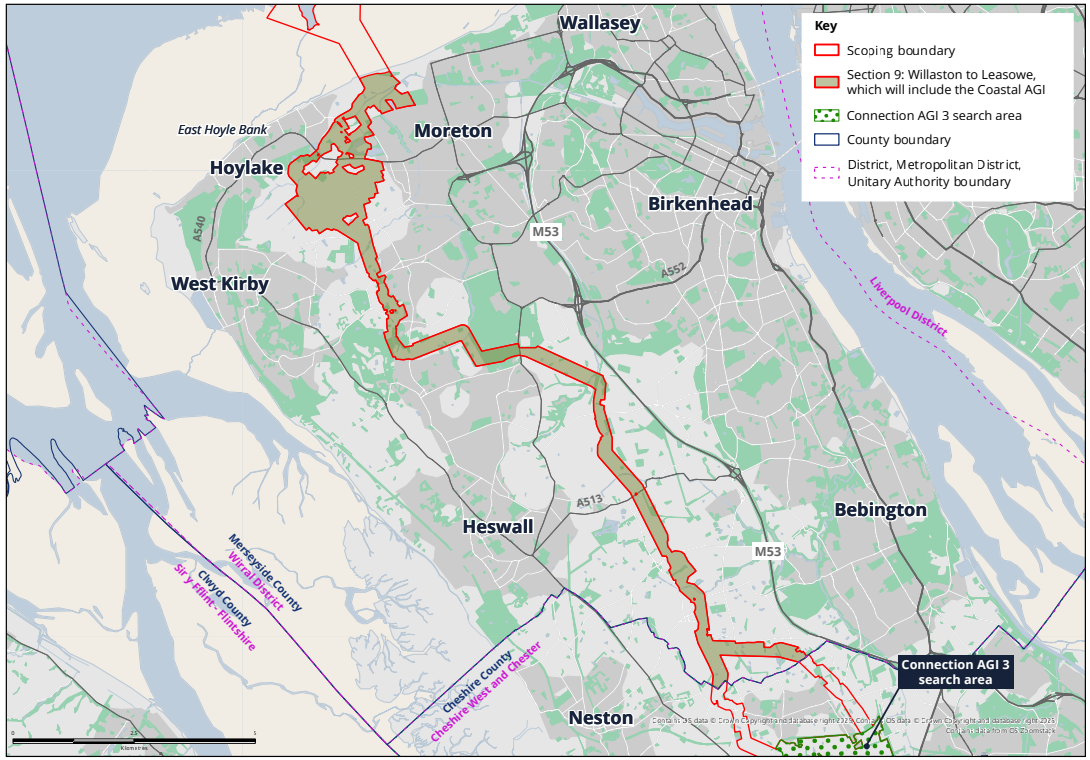
# Wirral: Sections 9 and 10 explained

## Section 9: Willaston to Leasowe, which will include the Coastal AGI

Section 9 includes the pipeline from Willaston to the north coast of the Wirral at Leasowe. It will also include the Coastal AGI.

This section is in Wirral Council.

In this section, to the south of Meols, we have identified a general area within which the Coastal AGI will be built. We will use your feedback and our further engineering studies to refine our plans to a smaller area.




### Coastal Above Ground Installation (AGI)

The Coastal AGI is an above ground facility which will be used to carry out metering and maintenance works to ensure that the system can run efficiently and safely. This AGI will also be used to compress the $CO_2$, making it suitable for transferring to the MNZ store.

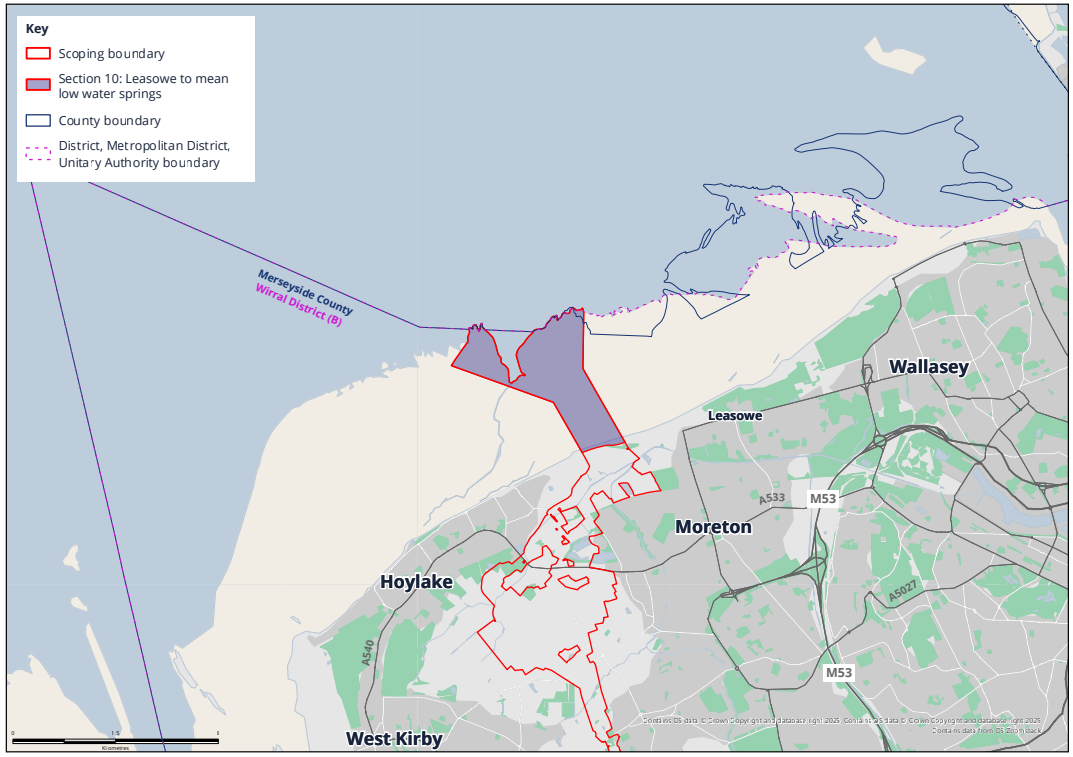
We are currently considering compressor, tall vent, layout and site location options. We will use the feedback provided during this consultation to further refine our preferred design and will provide more information during our phase 2 consultation.

# Wirral: Sections 9 and 10 explained

## Section 10: Leasowe to mean low water springs

Section 10 includes the offshore pipeline from Leasowe on the north coast of the Wirral to mean low water springs (MLWS).

This section is in Wirral Council.




### Offshore pipeline

From the Coastal AGI, $CO_2$ will be transferred offshore in up to two pipelines to MLWS. From this point, the $CO_2$ will be transported further offshore and stored by MNZ.

The design of this offshore pipeline is still being developed, and its length will depend on the exact location of other pieces of infrastructure such as Coastal AGI.

### Mean low water springs

MLWS is the boundary of the onshore planning regime, and where the Peak Cluster Development Consent Order will end.

The pipeline from MLWS, and any additional infrastructure that will be constructed offshore, is not part of this consultation. Spirit Energy will seek a separate consent for this.

# CARBON CAPTURE AND STORAGE TECHNOLOGY

## What is carbon capture and storage?

Peak Cluster will use a technology called carbon capture and storage (CCS) to reduce the $CO_2$ emitted from entering the atmosphere. The CCS process captures the carbon dioxide emissions before transporting it in an underground pipeline to a secure storage site.

The $CO_2$, which is currently emitted into the atmosphere when cement and lime are produced, will be captured in purpose-built facilities situated on the cement and lime plants. It will then be compressed so that it can be transported safely by new, purpose-built underground pipelines to MNZ for permanent offshore storage under the East Irish seabed.

Spirit Energy is proposing to store captured $CO_2$ in depleted gas reservoirs which have safely and securely held natural gas under high pressure for millions of years. Over the last few decades, the gas has been extracted to heat our homes and power our industry. The stores are now ready to be repurposed to store our carbon dioxide emissions. **More information on MNZ can be found at www.spirit-energy.com/our-operations/mnz/**.

To transport the $CO_2$ from the cement and lime plants to the Coastal AGI (and ultimately the MNZ store), we considered all options including using trucks, trains and a pipeline. To ensure emissions are not increased through transport and to avoid increasing traffic movements, we determined that a pipeline was the best solution.

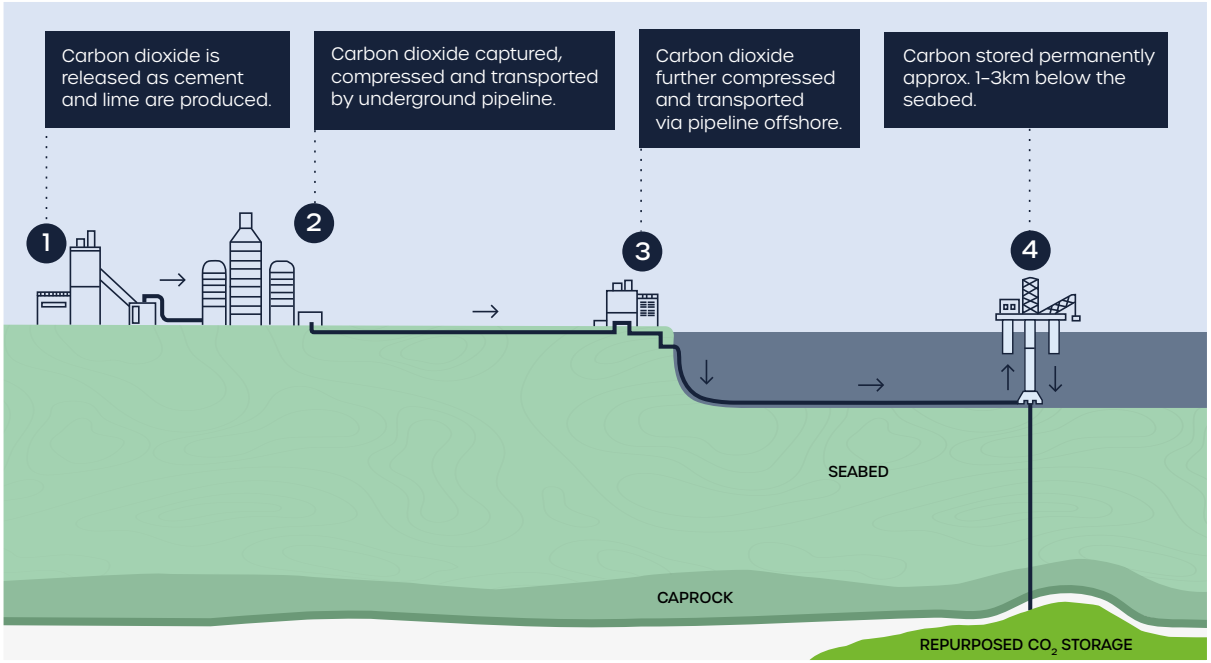
# CARBON CAPTURE AND STORAGE TECHNOLOGY

## Why do we need to use CCS?

To produce cement and lime, the raw material, limestone (calcium carbonate) must be converted into calcium oxide. Carbon dioxide is released as an unavoidable by-product of this process. Simply switching to electricity or low carbon fuels would only partially reduce emissions from these industries; therefore capturing and storing the carbon dioxide is the only option to enable the production of cement and lime to reach net zero.

CCS is a mature technology that can capture up to 95% of the $CO_2$ emissions produced in industrial processes. It is already being used out in a range of industries around the world including Norway's Sleipner and Snohvit projects. Other CCS projects being developed in the UK include Heidelberg Materials' Padeswood Cement Plant in Flintshire and Encyclis' Energy from Waste Plant in Cheshire.

## How it works



# ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The Peak Cluster pipeline is classified as a Nationally Significant Infrastructure Project (NSIP) and will require an Environmental Impact Assessment (EIA) to identify the likely significant effects of the project on the environment under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

We are undertaking a full EIA to support the DCO application. An EIA identifies and assesses the effects that a project may have on the environment, people and local communities. It enables decision makers to consider the likely effects of the project at an early stage and aims to avoid, reduce, mitigate or offset those effects.

We are currently at the 'scoping' phase of the project, which will provide a framework for identifying likely significant environmental effects arising from the project. We will document the results of the EIA in the Environmental Statement (ES), which will be submitted as part of the DCO application to the Planning Inspectorate.

## Stage 1: EIA scoping

The Scoping Report has been prepared and we will submit it to the Planning Inspectorate in parallel with this phase of consultation. It sets out the environmental impacts to be assessed, explains the approach for evaluating any likely significant effects, and defines the proposed scope and structure of the EIA and ES. The scope of the EIA will be informed by technical expertise and engagement with statutory stakeholders to ensure that the environmental assessments we undertake accurately identify and consider the environmental impacts of Peak Cluster. Following the submission of the EIA Scoping Report, the Planning Inspectorate will consult with a number of stakeholders including the Environment Agency, Natural England, Local Authorities and others before publishing its Scoping Opinion, which will inform the scope of the EIA and the content of the ES.

**We are proposing to assess the following topics in our EIA:**

- Air quality
- Biodiversity
- Traffic and transport
- Noise and vibration
- Historic environment and cultural heritage
- Water environment and flood risk
- Marine environment
- Geology and ground conditions
- Socio-economics
- Human health
- Materials and waste
- Climate change
- Major accidents and disasters
- Cumulative effects.

Scan this QR code or follow the link to view our EIA Scoping Report in full: www.peakcluster-consultation.co.uk

# ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

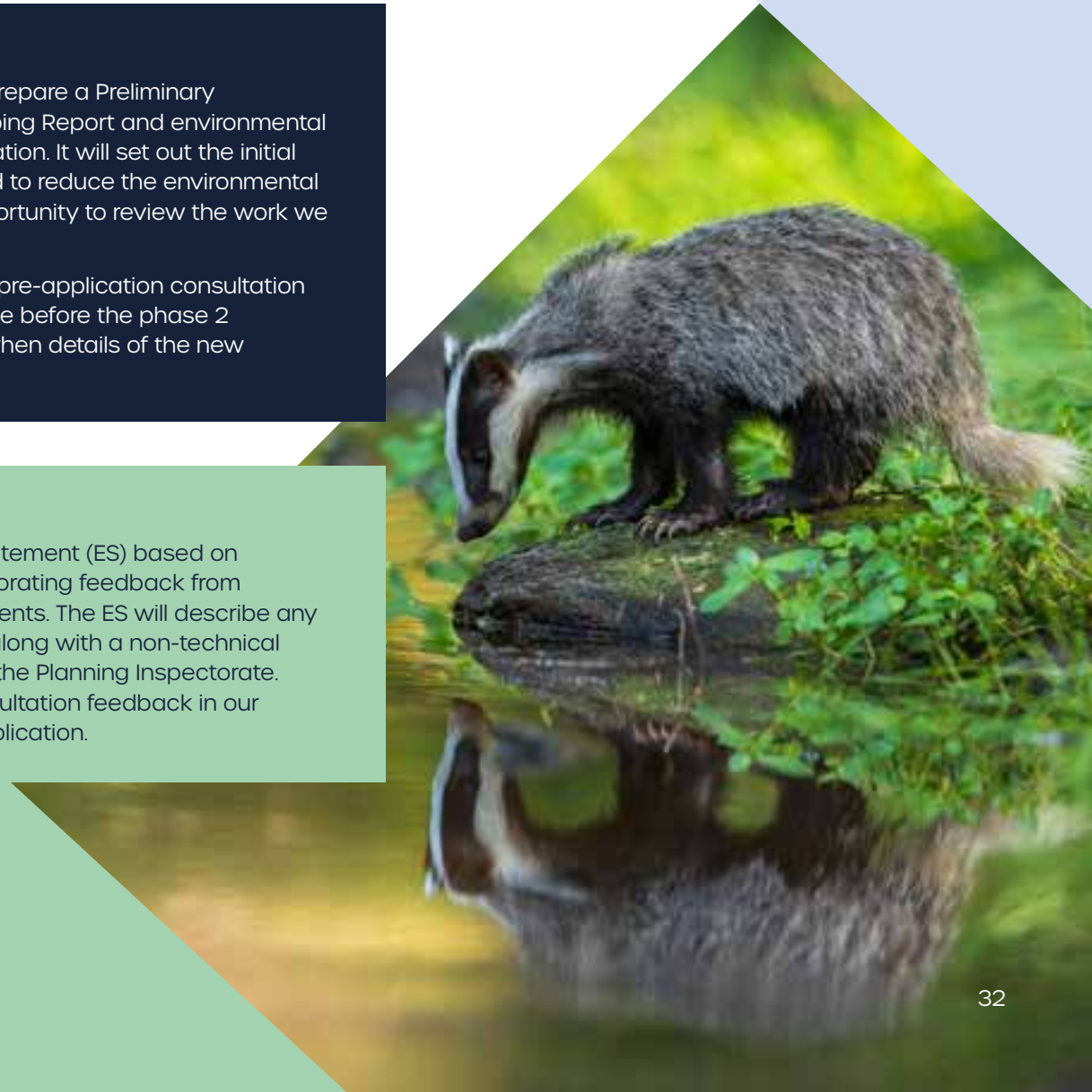
### Stage 2: Preliminary Environmental Information Report

For our phase 2 consultation, currently scheduled for late 2026, we will prepare a Preliminary Environmental Information Report (PEIR). The PEIR will build upon the Scoping Report and environmental assessments, as well as feedback received through the phase 1 consultation. It will set out the initial findings of the EIA and identify mitigation measures that may be required to reduce the environmental impacts that we have identified. At this stage, you will have another opportunity to review the work we have done and share your views on our more detailed proposals.

The Planning and Infrastructure Act 2025 includes major changes to the pre-application consultation requirements for DCO applications, which are expected to come into force before the phase 2 consultation. We may adapt our approach to the phase 2 consultation when details of the new arrangements are clearer.

### Stage 3: Environmental statement

Following our phase 2 consultation, we will prepare an Environmental Statement (ES) based on the Scoping Opinion. We will build upon the content of the PEIR by incorporating feedback from stakeholders and the public, in addition to the outcomes of our assessments. The ES will describe any changes to the project and any proposed mitigation measures. The ES, along with a non-technical summary (NTS), will form part of the DCO application to be submitted to the Planning Inspectorate. We will document the changes that have been made as a result of consultation feedback in our Consultation Report, which will also be submitted as part of the DCO application.



# PHASE 1 CONSULTATION AND NEXT STEPS

**We are holding our phase 1 consultation from 12th January 2026 to 27th February 2026. This consultation gives you an opportunity to find out more about the project, discuss your questions with the project team and provide feedback on our plans**

Your feedback is important to us and will help us to refine our proposals ahead of our phase 2 consultation later this year.

### Specifically, we are seeking your feedback on:

- The need for the project
- The proposed route for the pipeline
- The location of associated infrastructure along the pipeline route such as AGIs and BVS
- The location of the Coastal AGI in the Wirral
- The proposed capture facilities at the cement and lime operator sites in Derbyshire and Staffordshire
- General issues or comments on specific geographies concerning the project
- Any additional local issues or sensitivities we should be aware of
- How you have found the consultation.

Following the close of our phase 1 consultation, we will review and consider all comments and suggestions received during the consultation period. We will review feedback received during this early consultation and analyse it to understand key themes and issues of importance from stakeholders and the community.

Having taken onboard this initial information and stakeholder feedback, we will develop a further iteration of the design for the project with greater detail on our proposed pipeline route, key infrastructure along the route and the capture facilities at each of the cement and lime operator sites. You will then have another opportunity to consider and provide feedback on these updated proposals as part of our phase 2 consultation, which we are starting later this year.

After this, we will set out a summary of the responses that we received in a Consultation Report, detailing how we considered all feedback and how it has shaped and influenced the proposals. Responses submitted during this initial round of consultation and our upcoming phase 2 consultation will be addressed by theme within the Consultation Report. This report will form part of our DCO application for development consent and will be published on our website following submission of our application to the Planning Inspectorate.

# PHASE 1 CONSULTATION AND NEXT STEPS

## How to get involved in the consultation

We welcome everyone's views on our plans for Peak Cluster. You can get involved in our consultation in the ways outlined below.

### In-person events

**Saturday 24th Jan, 1pm – 4:30pm**
Hoylake Parade Community Centre

**Sunday 25th Jan, 11:30am – 2:30pm**
Willaston Memorial Hall

**Monday 26th Jan, 2:15pm – 5:45pm**
Hoole Community Centre

**Tuesday 3rd Feb, 1pm – 4:30pm**
The Wych Centre, Middlewich

**Wednesday 4th Feb, 5pm – 9pm**
St Alban's Church, Macclesfield

**Monday 9th Feb, 5pm – 8:30pm**
Haregate Community Centre, Leek

**Tuesday 10th Feb, 12pm – 5pm**
St Anne's Community Centre, Buxton

**Thursday 12th Feb, 11am – 5:30pm**
Bradwell Memorial Hall

### Online webinars

**Tuesday 27th Jan, 1pm – 2:30pm**
Wirral focus

**Saturday 31st Jan, 1pm – 2:30pm**
Cheshire focus

**Thursday 4th Feb, 7pm – 8:30pm**
Derbyshire and Staffordshire focus

**Wednesday 11th Feb, 7pm – 8:30pm**
Project wide

**We are hosting hard copy consultation materials, including this project guide, at publicly accessible information points along the route. You can find out the closest location to you using the QR code below or by getting in touch with our team using the details on page 36.**

### Consultation hub

You can access all consultation materials and find out more about our planned events and activities using our online consultation hub, which you can find at **www.peakcluster-consultation.co.uk** or by scanning this QR code.

# PROVIDING FEEDBACK

## How to provide your feedback on our phase 1 consultation

We need your local knowledge and views to understand exactly where the pipeline and associated infrastructure should be located.

You can do this by completing a feedback form, which includes questions about each section of the route. There is also space to provide general comments about the project and this consultation.

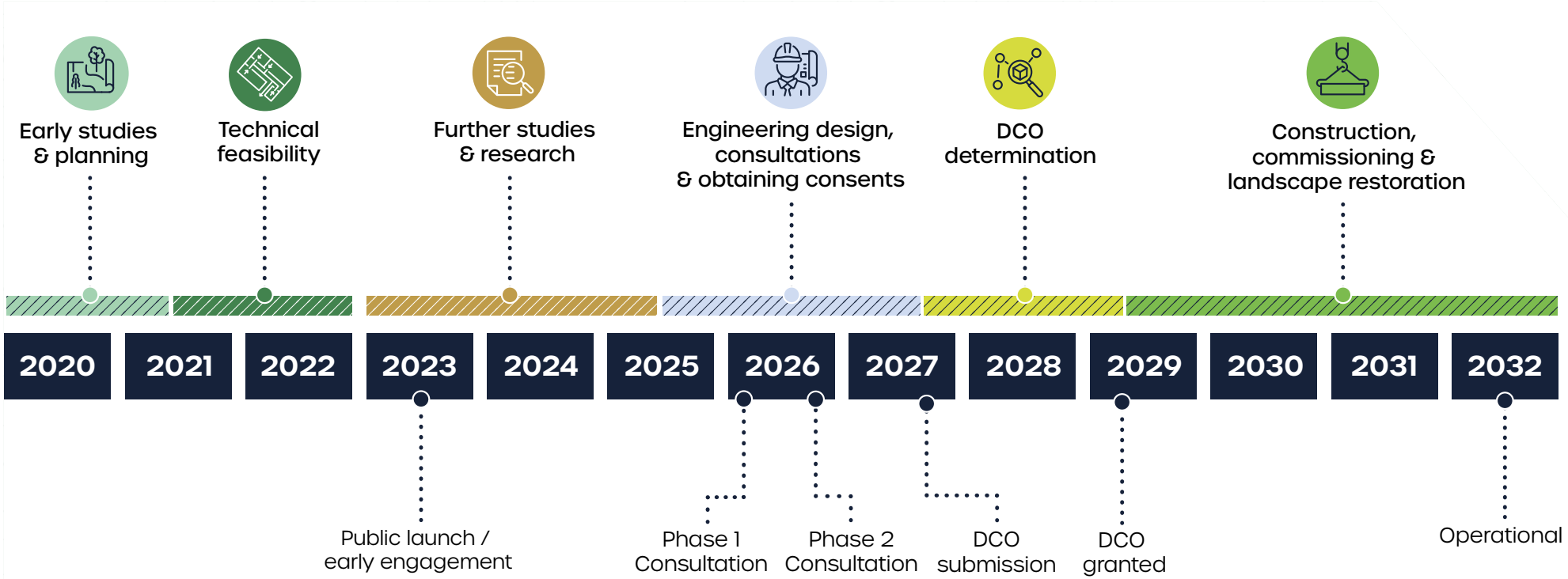
You can provide your feedback by:

- Submitting your comments or completed feedback form by email to **consultation@peakcluster.co.uk**
- Completing a hardcopy of this feedback form, and returning it free of charge to **FREEPOST PEAK CLUSTER** (no stamp required)
- Completing this feedback form online at **www.peakcluster-consultation.co.uk** or by scanning the QR code below

# PROJECT TIMELINE

## What is the project schedule?

We are currently undertaking our phase 1 consultation. Our indicative timeline for the project is below.




Please note, this timeline is indicative.

# CONTACT US

We are working closely with communities and organisations to ensure we minimise disruption, maximise benefits and deliver the project safely.

We are holding consultation events to hear your views on the project and gain important feedback on our proposals. You can also get in touch with our Community Relations Team using the details below.

If you have any questions or comments about the project or would like to submit feedback, you can get in touch by:

**Emailing:** consultation@peakcluster.co.uk

**Calling:** 0800 0129 167 (freephone)

**Writing:** FREEPOST PEAK CLUSTER

For more information on the project please visit **www.peakcluster.co.uk** or scan the QR code and follow us on social media.

@peakcluster @Peak Cluster @peakcluster

PEAK CLUSTER

**Find out more about:**

**Peak Cluster**
www.peakcluster.co.uk

**Carbon capture and storage**
www.bgs.ac.uk/discovering-geology/climate-change/carbon-capture-and-storage

**The cement industry**
www.mineralproducts.org/Mineral-Products/Cement.aspx

**The lime industry**
www.mpalime.org

**Morecambe Net Zero (MNZ)**
www.spirit-energy.com/our-operations/mnz

This document has been produced by Peak Cluster Limited, and every effort has been made to ensure that the information contained within is accurate as of the date of publication. Our proposals for the project are still in development, and therefore future updates or changes may affect the accuracy or relevance of this information.

All graphs and maps in this document are for illustrative purposes only.