

Physical Environments: Glaciation

Land Use Conflict in the Lake District



Check your answer!

Scene setting:

The Lake District lies some just south of the Scottish-English border, near the west coast.

To the north of the Park lies the town of Carlisle, and to the south is Lancaster and further still, Blackpool.

To the west lie the waters of the Irish Sea and to the east running N/S is a narrow, low strip of land separating the Lake District from the Yorkshire Dales. This strip carries the main motorway link that feeds visitors into the Lake District- the M6.



Setting the Scene

Draw and build up a mind map or spider diagram like the one below using the information on the next few slides:

People

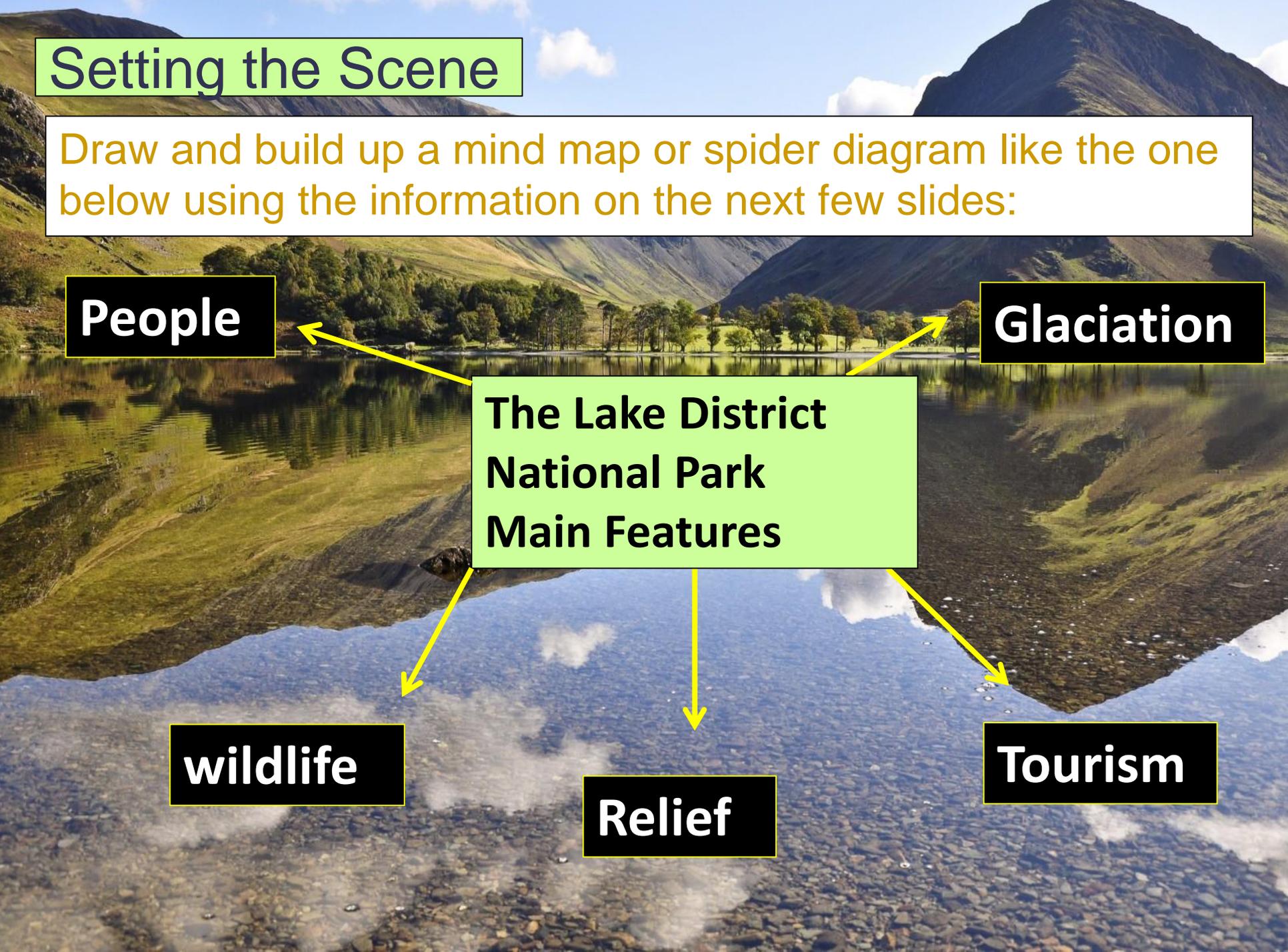
Glaciation

**The Lake District
National Park
Main Features**

wildlife

Relief

Tourism



The area is a very mountainous one, especially in the north and centre. It is more gentle to the south with rolling, low hills.

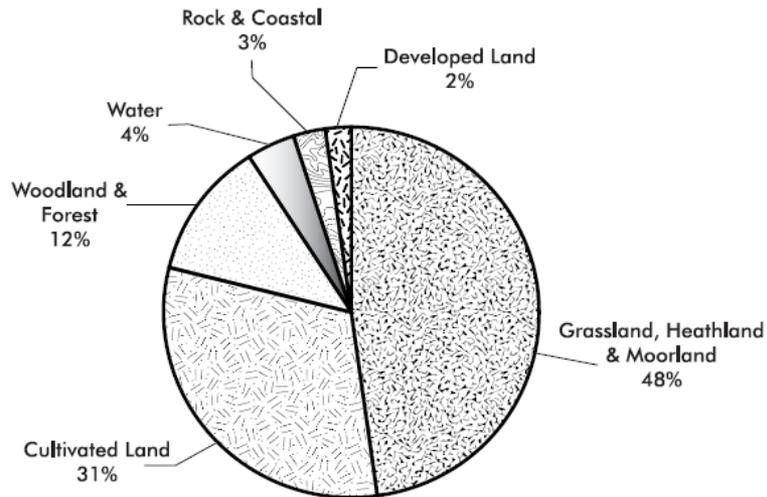
The mountains are the Cumbrian mountains and are just over 3000m at their highest point- Skafell Pike.

Glacial erosion features are the main scenery type here, and these attract huge numbers of visitors to enjoy both active and passive pursuits.

The many ribbon lakes that fill the sweeping U-shaped valleys are a particular pull. There are several corries and arêtes.



Land Classification within the Lake District National Park



The vegetation cover and landscape is varied. Only 2% of the area has been developed for purposes of settlement and tourism. 31% of the land is cultivated by farmers, leaving the rest in its natural state. Such natural landscapes host a variety of wildlife habitats.

wintering birds like goldeneye and tufted duck are common



There is a declining red squirrel population



otters and native white-clawed crayfish habit the lakes and rivers.

Several species of birds of prey are native, such as this Peregrine Falcon



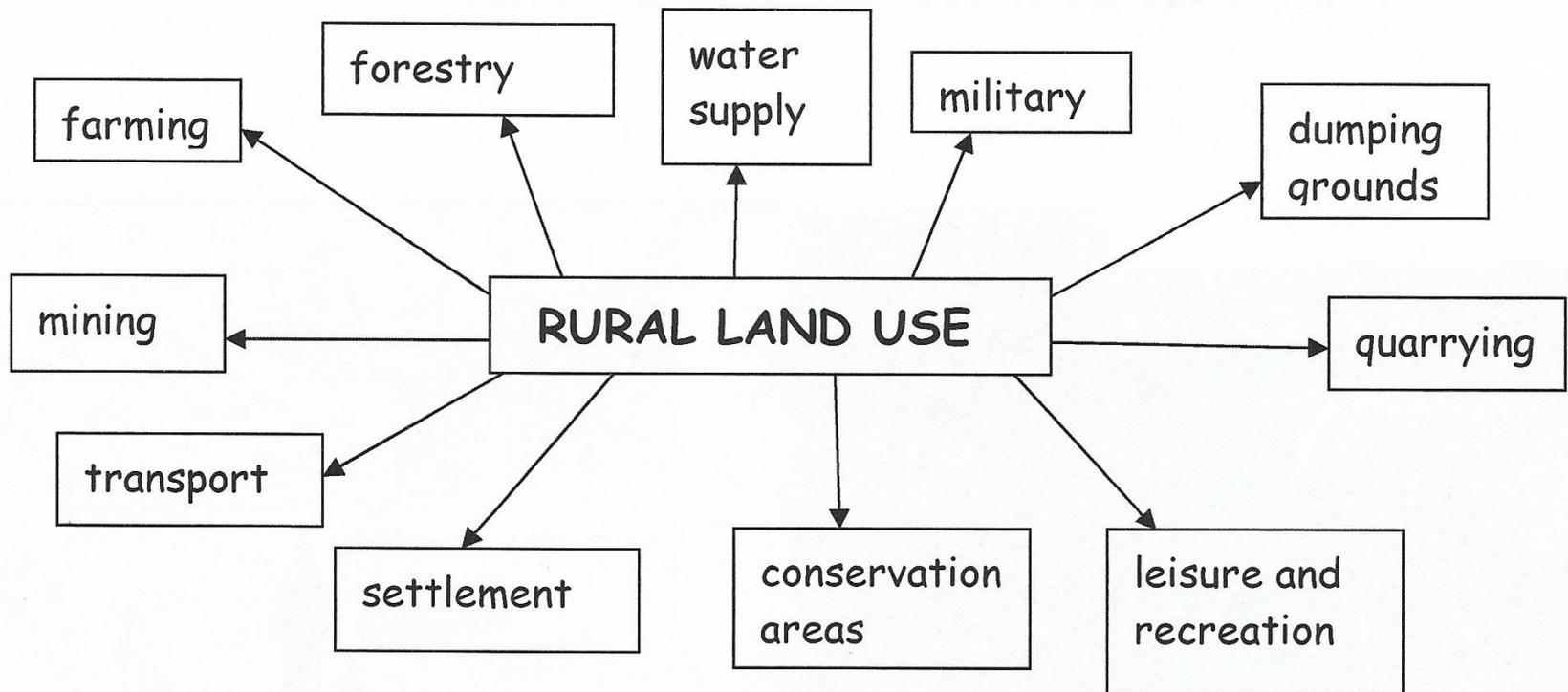
40,800 people live within the boundaries of the National Park.
Population density per square kilometre: 18.4
Total dwellings: 22, 930
Owner occupied: 67.7 per cent
Rented: 32.3 per cent
Holiday or second homes: 15 per cent



The National Park receives 15.5 million visitors a year.
Income: In 2013 visitors spent £1051 million in the Lake District
Employment: Tourism provided 15,424 jobs in the National Park

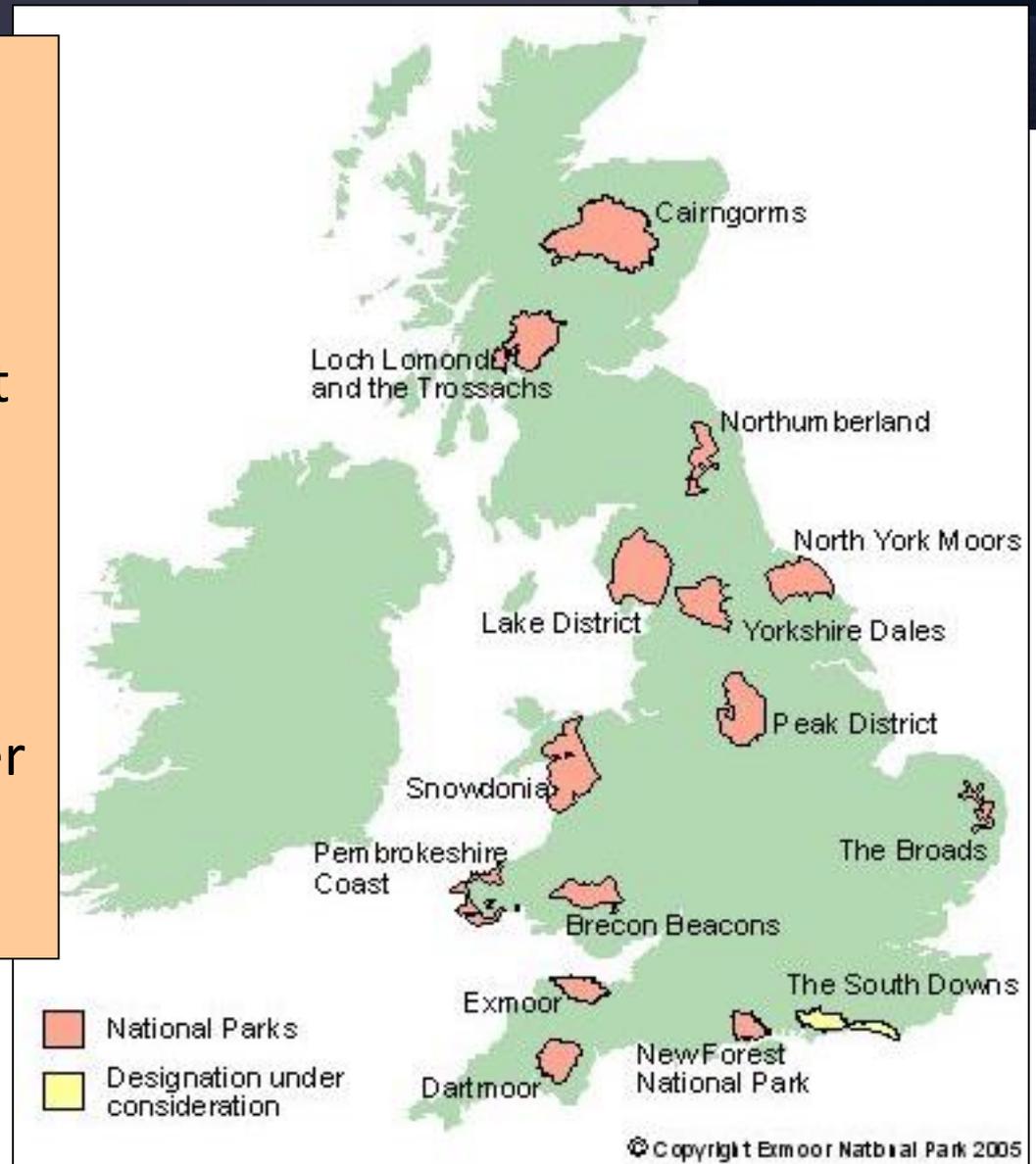
Why a National Park?

There is considerable pressure on rural landscapes in the U.K. as demands for land use in the countryside include land for farming, forestry, settlement, transport and recreation. The diagram below illustrates some of these pressures.



Why a National Park?

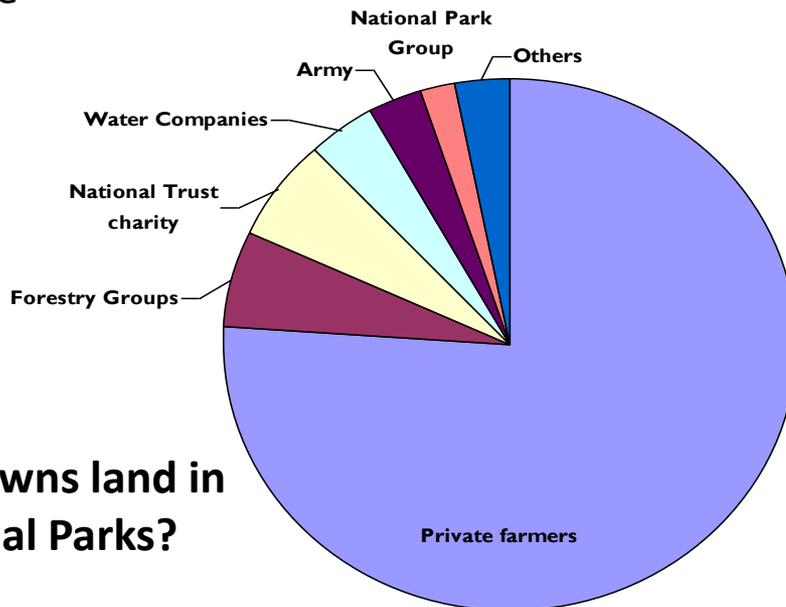
The pressure on such beautiful and special landscapes has encouraged the UK government to develop policies which affect rural land use. Within England and Wales 13 areas of unique Character have been designated National parks, with a further 2 being designated in Scotland



Why a National Park?

Location : They are all in areas of spectacular scenery which is protected from development which might spoil it.

How they Work : the land isn't owned by the Government – it's in private hands. But each park has a National Park Planning Board who have extra power to give or refuse planning permission for new developments, so they can control what is built and make sure it doesn't spoil the area.



Who owns land in National Parks?

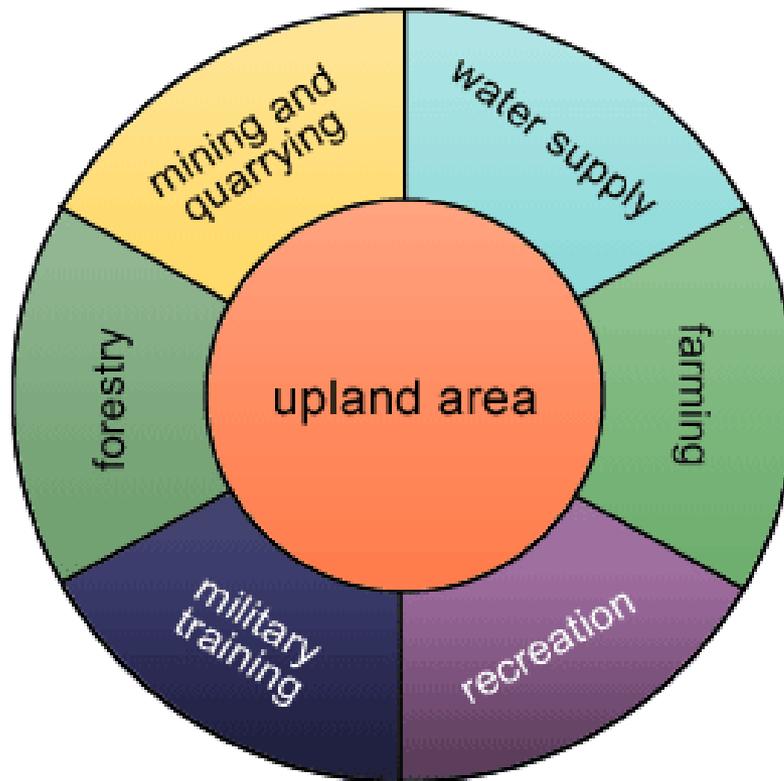
The Aims of National Parks

- **To protect and conserve the natural scenery, wildlife and habitats within the National Park for future generations.**
- **To encourage the public to visit and enjoy the leisure opportunities offered by the National Park**
- **To help maintain existing communities within the National Park and their economic well-being**

Some people say it is difficult to meet all these aims without some **conflict** – by encouraging more visitors this might spoil the natural scenery or cause problems for existing communities.

Who are the Land Users in the Lake District National Park?

Social & Economic Opportunities in Upland Areas



Create a spider diagram using information from the next 4 slides. It should describe the **main land users** and explain the **social and economic** opportunities afforded to them in the Lake District National Park



Who are the Land Users?

Farming

In upland areas many slopes are too steep for the use of large machinery and temperatures very low with a short growing season. Soils are thinner and rainfall heavy. It would be difficult to grow crops so Hill Sheep Farming is predominant with some beef cattle on lower and better land.

The wool industry was very important in the past and sheep wool is still used for carpet making.

Small farms used to be the principal employment in the Lake District but the numbers of farms has fallen significantly with land being sold for housing and tourism. 11% of the workforce in the Lake District are employed in farming.

Tourism has given farmers opportunities to diversify with many farmers relying on diversification for 80% of their income.



Who are the Land Users?

Forestry

Large plantations are often seen – mainly because the land is poor and difficult to build on and forestry provides a profitable activity (which also provides leisure activities).

The Forestry Commission has planted coniferous trees in many upland areas with over 75,000 tonnes of timber produced each year.

The wood is mainly used as firewood and timber for housing. The forestry also creates new wildlife habitats, protecting the local environment. There are 53 full time jobs working for the Forestry Commission in the Lake District National Park.



Who are the Land Users?

Industry

This ranges from mining and quarrying local stone to the main industry of tourism and recreation. Upland areas rarely attract factories and modern industries so extractive industries are more common.

Slate is quarried in the Lake District from 10 quarries e.g. Coniston Slate, making use of the natural resources. That the area has to offer.

Proximity of the M6 makes transport of bulky slate products much more efficient.



Who are the Land Users?

Tourism

This is one of the major employers in the Lake District and provides both social and economic opportunities. Increased car ownership and the opening of the M6 motorway means that 10 million people are within a 3 hour drive of the Lake District. Tourists are attracted by the unique and varied scenery, especially the ribbon lochs and high peaks.

Tourism has become important with the decline of traditional industries. It has helped keep some services like schools and shops in the local area and has brought leisure centres.

Estimates suggest that in some areas e.g. Windermere, more than 50% of the active population are employed in the tourist industry.

Many other jobs are also supported indirectly through visitor spending e.g. bakers, builders and estate agents.



Who are the Land Users?

Water Supply

Several urban areas nearby have high demand for water. The lakes have been providing water to Manchester for 100 years.

Granite rock is impermeable so low amounts of water seepage.

Making use of existing naturally-occurring ribbon lakes is significantly cheaper than constructing man-made reservoirs.

There is plenty of water available through rainfall and snowmelt (supplies 30% of regions water needs).



Exam Type Question

“With reference to Loch Lomond and the Trossachs or any other named upland area that you have studied, explain the social and economic opportunities create by the landscape.”

10 Marks

Tips:

- Name your case study area.
- Explain the suitability of each land use:
 - Farming
 - Forestry
 - Industry
 - Water Supply
 - Tourism
- Quote figures and give named examples.



An Example Answer

In the Lake District National Park several social and economic opportunities are created by the landscape. Tourism in particular benefits from this location. The high peaks and ribbon lakes attract tourists in their thousands for walking, sailing and climbing. This in turn offers job opportunities for local people through the provision of tourist related services like hotels, shops and bed and breakfasts. Estimates suggest that in some areas e.g. Windermere, more than 50% of the active population are employed in the tourist industry. Increased car ownership and the opening of the M6 motorway means that 10 million people are within a 3 hour drive of the Lake District.

Farming also benefits from its location here. In upland areas many slopes are too steep for the use of large machinery and temperatures very low with a short growing season. Soils are thinner and rainfall heavy. It would be difficult to grow crops so Hill Sheep Farming is predominant with some beef cattle on lower and better land. The wool industry was very important in the past and sheep wool is still used for carpet making. 11% of the workforce in the Lake District are employed in farming. Tourism has given farmers additional opportunities to diversify with many farmers relying on diversification for 80% of their income.

The lakes provide a water supply for the surrounding region. Several urban areas nearby have high demand for water. The lakes have been providing water to Manchester for 100 years. Making use of existing naturally-occurring ribbon lakes is significantly cheaper than constructing man-made reservoirs. Granite rock is impermeable so there are low amounts of water seepage. There is plenty of water available through rainfall and snowmelt (supplies 30% of regions water needs).

Finally, large forestry plantations are often found here mainly because the land is poor and difficult to build on and forestry provides a profitable activity (which also provides leisure activities). It also provides jobs, with 53 full time jobs working for the Forestry Commission in the Lake District National Park.

Why is there conflict?

Conflicts of Interest develop when the activities of one group of people interfere and spoil the enjoyment of another group of people. They are common in national parks because so many different people want to use them for so many different activities. It is up to the National Park authorities to try to reduce these conflicts of interest.

Causes of the Conflict of Interest

People who pay to shoot grouse and partridge on heather moorlands



Visitors who focus on certain villages and park their cars on grass verges



Visitors who think they can walk over any field in a National Park with a loose dog



Victims of the Conflict of Interest

Walkers and bird-watchers are worried for their safety – or that of the wildlife

Local residents who can't get out of their drives or find car-parks all full

Farmers who find their lambs chased & killed by dogs and gates left open for animals to wander onto roads



Pair up! Can you think of other examples of conflicts which could occur between Lake District land users?

The conflicts

You will study 3 examples of land use conflict in the Lake District. For each you must be able to:

- Explain the conflict
- Identify explain strategies taken to solve the conflict
- Evaluate the effectiveness of these strategies.

Your 3 conflicts are:

- 1) Tourists v local residents
- 2) Quarrying v local residents.
- 3) Tourists / residents v wind energy



Fill in your A3
Conflicts grid as we
discuss the 3 conflicts

Wind Energy v local residents / tourists

What's the Issue?

The Lake District, with its high peaks, has an abundant wind resource and lends itself well to wind energy development in that regard.

Wind energy could provide a sustainable and renewable energy resource for Lake District communities and could go some way towards meeting the UK Government's renewable energy goals. HOWEVER, the construction of wind farms in the Lake District is hugely controversial, with many opponents arguing against their development in a National Park.



Work with a partner. Identify some of the likely **arguments** that **local residents and tourists** might raise **against** the construction of wind farms in the Lake District.

The arguments!



The forests in the National Park are home to thousands of native birds (including birds of prey). They may be injured or killed by the spinning turbine blades

The constant “hum” noise from the turbines could irritate and disturb local residents

TV and radio signals could be interrupted by the turbines

Land use conflicts surrounding Lake District Wind Farms

Roads throughout the park are too narrow for the lorries carrying equipment to the site. They may become congested, or have to be widened, destroying surrounding vegetation and habitats.

The turbines are at least 30 metres tall and usually built on high sites so they can maximise their potential to capture the wind. This makes them highly visible from miles around.

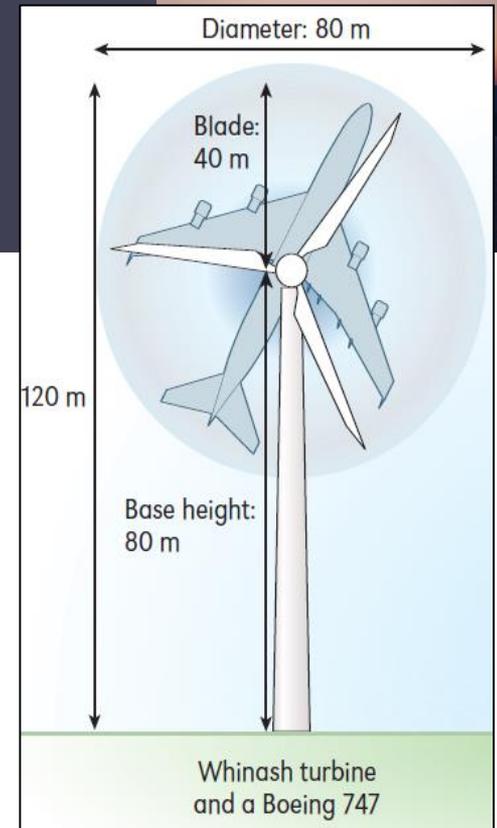
The scenic views and stunning landscape will be spoiled by the turbines which are an ugly scar on the landscape. Walkers and tourists may be put off from coming here.



A Case Study: Whinash



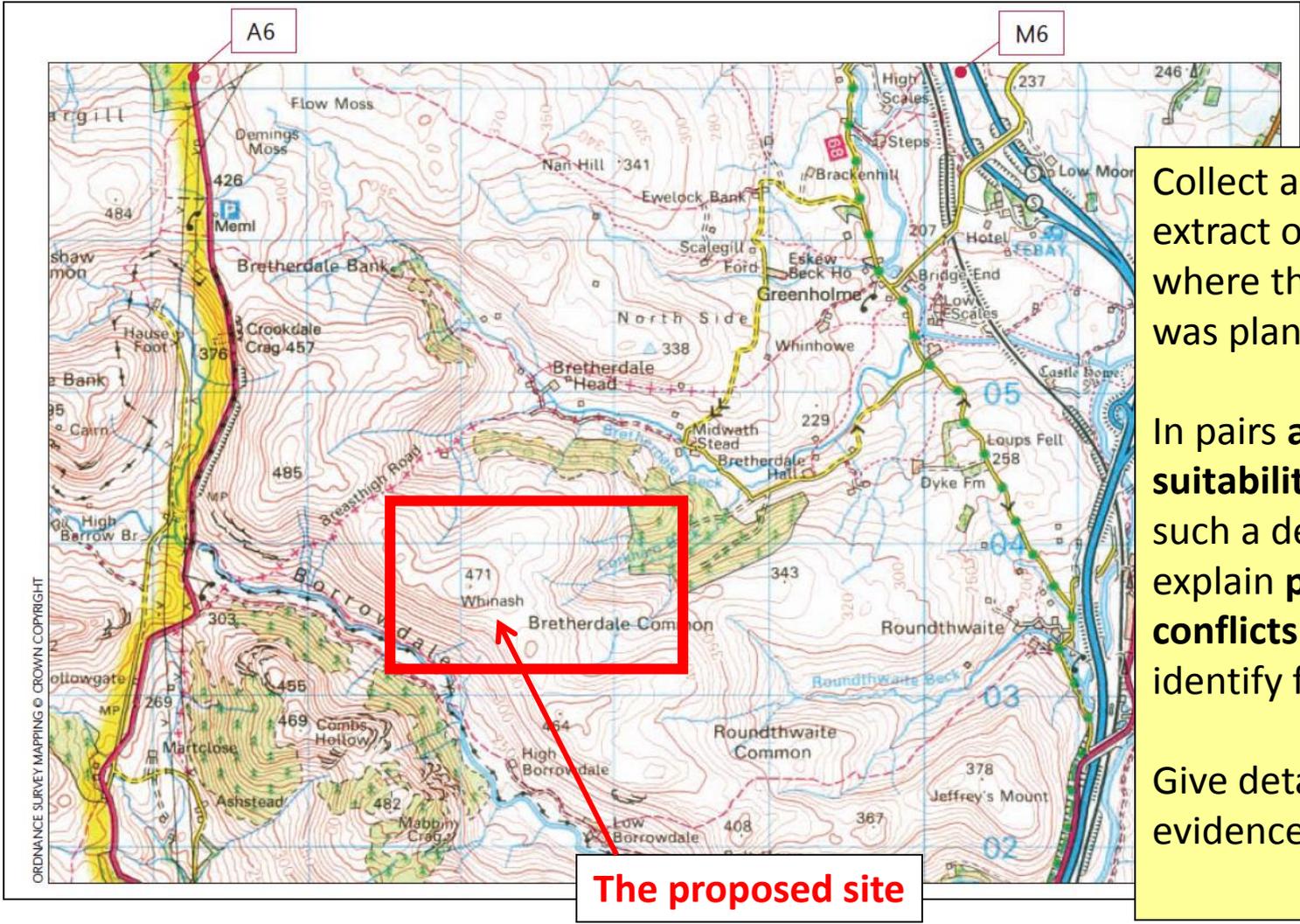
In 2005 a proposal to build a massive wind farm at Whinash in Cumbria was rejected by the UK Government. It was planned that the wind farm would occupy an 8 km stretch of moorland between the Lake District and Yorkshire Dales National Parks and involve the construction of twenty-seven giant turbines, each 120m tall, in total producing power for 47000 homes



The issues at Whinash

The Whinash scheme was highly controversial. An unusual feature of the conflict was that environmental groups took opposite sides. Greenpeace and Friends of the Earth supported the scheme because it would reduce the carbon dioxide emissions that cause climate change and global warming. The Countryside Agency and Lake District National Park Authority opposed Whinash. They argued that the wind farm would ruin the landscape and destroy important habitats for moorland birds.

A Case Study: Whinash



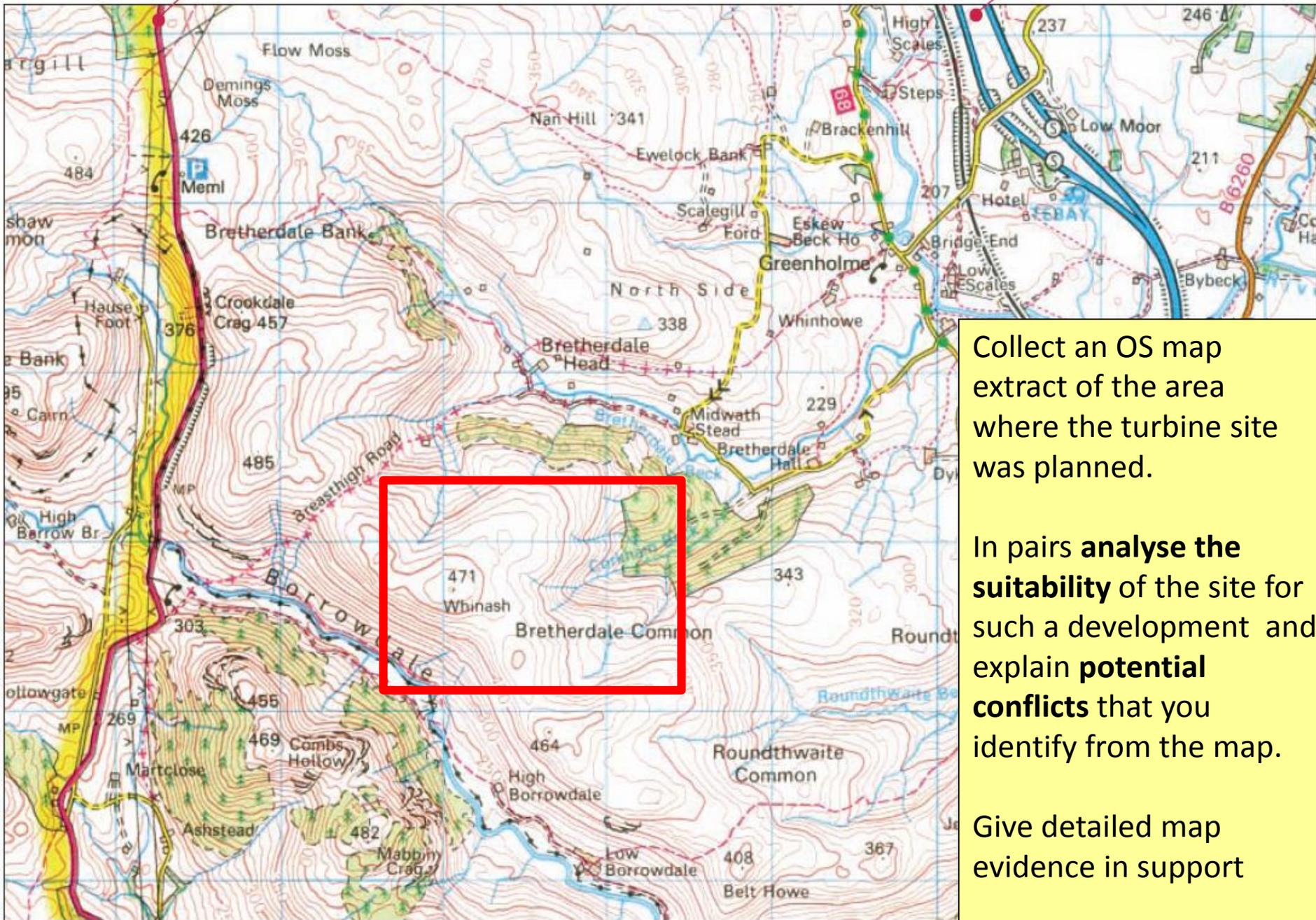
Collect an OS map extract of the area where the turbine site was planned.

In pairs **analyse the suitability** of the site for such a development and explain **potential conflicts** that you identify from the map.

Give detailed map evidence in support

A6

M6



Collect an OS map extract of the area where the turbine site was planned.

In pairs **analyse the suitability** of the site for such a development and explain **potential conflicts** that you identify from the map.

Give detailed map evidence in support

A Case Study: Whinash



Summarise the main arguments against the wind farm

Views against

When...some of the finest landscape in the country is under threat it is necessary for the agency to intervene.

Richard Honey, The Countryside Agency

If this project proceeds it will expose the finest windy countryside to similar developments... for insignificant benefit to the nation.

Kyle Blue

This is a wonderful piece of landscape that is being considered for classification as a National Park. This project would be absolutely catastrophic for the area.

Ian Brodie, Friends of the Lake District

Our reasons for opposing the farm have nothing to do with **nimbyism** ['not in my back yard']. The fact is this wind farm will not deliver what the public is led to believe it will.

Kyle Blue, No Whinash Wind Farm Group

Giant wind turbines cause visual pollution, destroy jobs in tourism and only work a third of the time.

David MacClean, Conservative candidate for Penrith and the Borders

The giant turbines would be visible from the M6 and would damage tourism worth millions of pounds a year.

Cumbria Tourist Board

Views in favour

Local opposition is partly nimbyism and partly arguments that don't add up. For example they claim that the turbines kill birds but there is no evidence to show that.
Jill Perry, Friends of the Earth

It is very important that we build wind farms to solve the problems (of pollution) we have created in the past.
Jill Perry

The presence of the M6 has already degraded the landscape visually and by generating noise and air pollution.
Environmental campaigner

I have rented out holiday accommodation for a number of years and I'm totally in favour of the scheme. Many people who come to the Lake District are walkers and outdoor types who are interested in green lifestyles — they're not going to be put off by wind turbines.
Anita Stirzaker, local business woman

The project will help meet government targets on **renewable energy** and most of the objections are from private interest groups.
Andrew Newcombe, CWP

Whinash is the most appropriate location in northwest England... a quarter of England is covered by National Parks or Areas of Outstanding Natural Beauty. We have to pick up the scraps that are left.
Stephen Molloy, project manager for Chalmerston Wind Power (CWP)

It's time something was done to tackle climate change. I'm still waiting to return to my house after the January floods.
Margaret Sanders, Carlisle resident whose home was flooded in January 2005

Clean energy alternatives such as the Whinash wind farm are crucial if we are to avoid the worst effects of climate change.
Jim Footner, Greenpeace



Summarise the main arguments for the wind farm



Do you think the UK Government made the correct decision in rejecting the wind farm proposal at Whinash?

Justify your reasoning with at least 5 detailed points.

Wind Energy v local residents / tourists

How can wind farm conflicts be solved?

An example: Lambrigg Wind Farm

Built on moorland so the farmer can continue to graze his sheep while receiving a rent from National Wind Power

Nearest house is 1km away so no issues of noise disruption

Near an existing electricity transmission line so no added costs to feed the power into the National grid or no added construction of power lines needed

National Wind Power Ltd has set up a “good Neighbour” policy, giving grants for investment in local services and schools.

Next to junction 37 of M6 and main A684. Building costs of access roads were low. No additional road building so less damage to surrounding landscape and vegetation.



Positioned just below the ridge so that only blade tips can be seen

Small scale – only 5 turbines so significantly reduces visual impact

Turbines are on the east side of a ridge so are hidden from tourists and residents in south Cumbria.

Tourists v Local Residents

Issue 1: Traffic congestion

What's the problem?

Nearly 90% of tourists arrive by car. Congestion is often heavy especially at weekends and during summer. There is limited Public Transport.

Periodic congestion occurs at Bottlenecks and “honeypot” towns such as Bowness and Ambleside with too many vehicles trying to access the same location. Many drivers park inappropriately blocking local roads or parking on grass verges. This annoys local residents who cannot get around easily. They also complain about the problems of air and noise pollution caused by the excess traffic.

Many roads are narrow, steep and winding, making them unsuitable for large volumes of traffic and tourist coaches.



Tourists v Local Residents

Issue 1: Traffic congestion

What are the solutions?

Popular walking routes are being connected to public transport services.

Public transport improvements, for example a Cross Lakes Shuttle bus which links the lakes of Windermere and Coniston Water and services the honey pot sites of Hawkshead, Grizedale and Tarn Hows.

Cycleways and footpaths being improved to ease congestion in visitor honeypots of Bowness, Windermere, Ambleside, Coniston and Grasmere. A bike-friendly bus has also been launched.

Yellow lines to prevent parking e.g. at the bottom of Catfell Mountain.

Managing traffic

In 2012 Government funding of £7 million was secured for a three-year scheme called 'Drive Less, See More'. It has an ambitious goal: a unified 'boats, bikes, boots and buses' network throughout the national park.

Park & Ride schemes such as that in Grasmere.

Building bypasses around honey pot towns such as Keswick

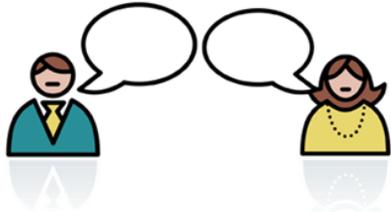
One way system in Ambleside.

School premises used as car parks during summer holidays.

Tourists v Local Residents

Issue 1: Traffic congestion

Effectiveness of solutions?



Work with a partner. For each of the traffic management solutions you have listed, evaluate its effectiveness (think about the advantages and disadvantages).

By-passes are hugely expensive and extra land is required to build them. This can damage habitats and vegetation. They greatly reduce congestion and the risk of accidents.

Restricted parking is tricky to police and is unreliable. It does however reduce the

Cycle route and footpath improvements are costly to establish and maintain. Not all users to the Park will want to / be able to cycle or walk. They will however reduce vehicle emissions and congestion in some areas. By linking cycle/foot ways to public transport, there will be a more integrated transport system across the Park which more visitors are likely to use.

Park-and-Ride schemes involve there being a piece of space outside of the honey pot area on a very small scale and usually with a long wait if you miss a bus. They provide provision for people who are stranded if the last bus is full! They reduce the numbers of individual cars entering the towns.

on main and side roads. It is not very effective since its impact on All Mountain in the area is one of inappropriately

improve the rates of occupancy by locals but are cumbersome to use.

There is currently not enough capacity for the sheer volume of visitors to the National Park.

Tourists v Local Residents

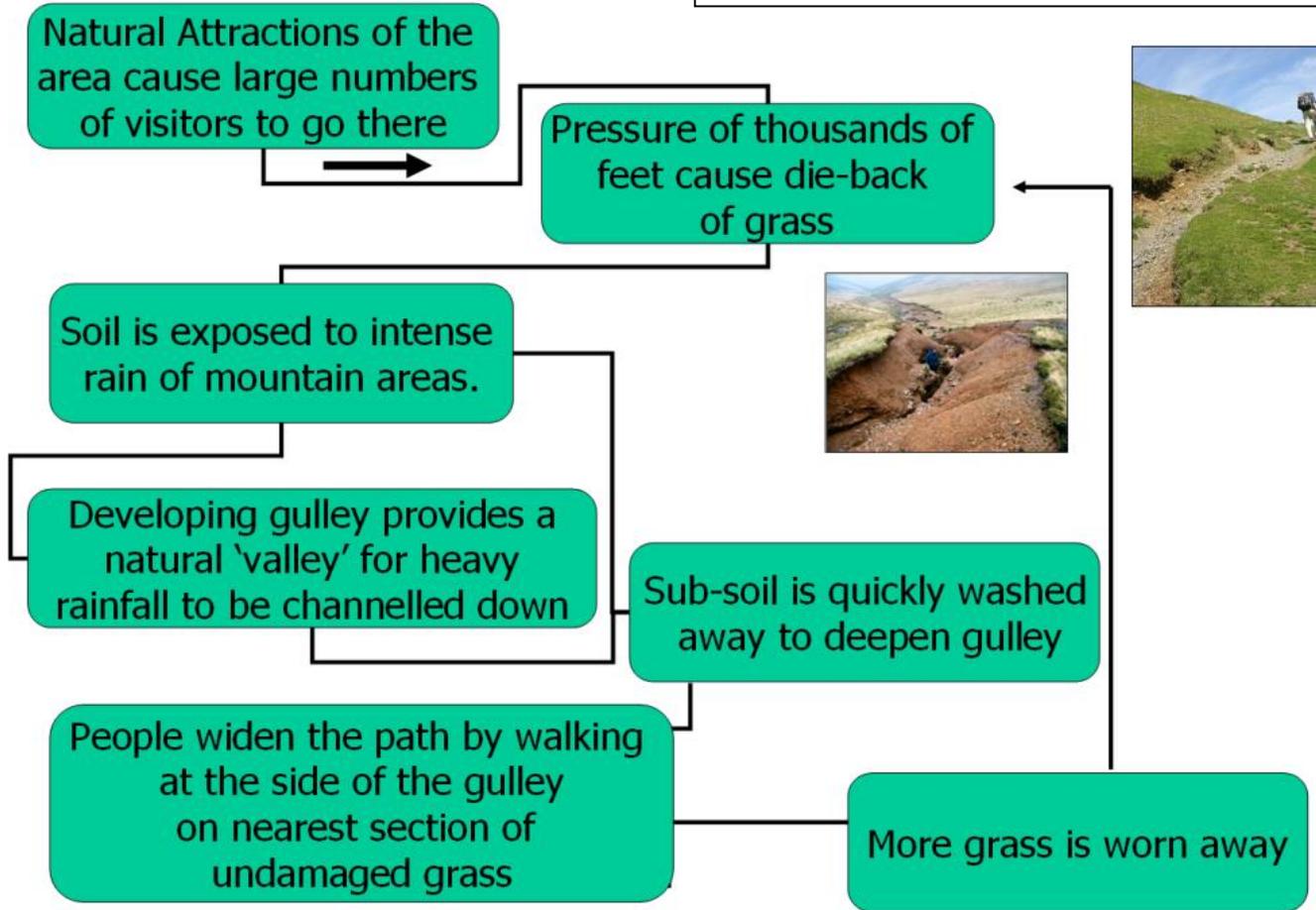
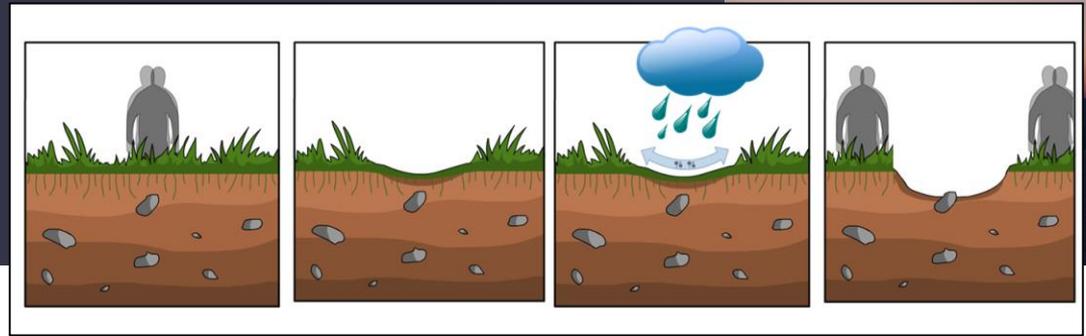
Issue 2: Footpath Erosion

What's the problem?

There is a lot of conflict between walkers and landowners. The Lake District has over 10 million walkers a year. Many paths have become eroded and scarred by wear and tear. This is especially true of popular walking spots like Helvellyn. Eroded paths are not only unsightly, but unpleasant to walk on and can lead to habitat loss as well as damage to the heritage, archaeological and natural history qualities of the area.



How does it happen?



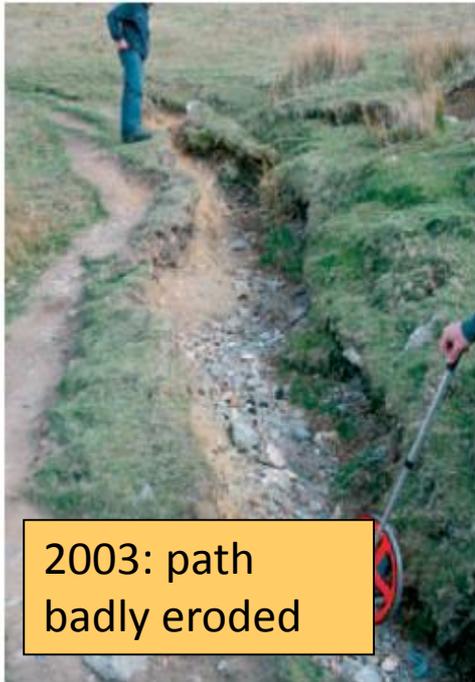
Tourists v Local Residents

Issue 2: Footpath Erosion

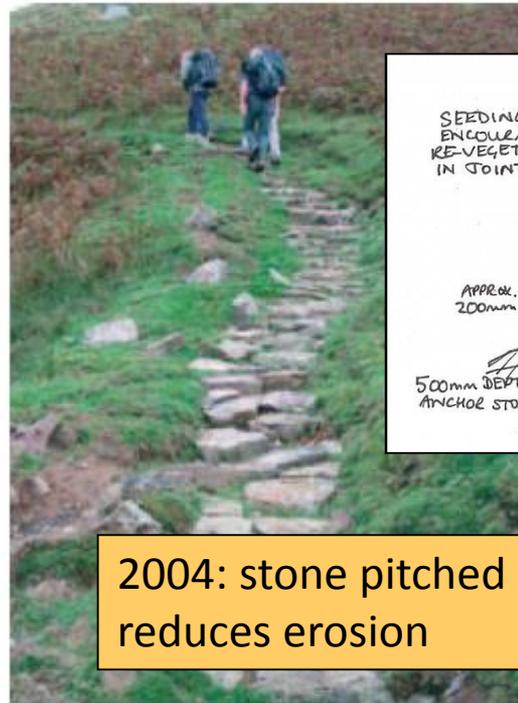
Solving the problem?

I. Stone – Pitching: Protect well-used paths with local stone to give a hard surface

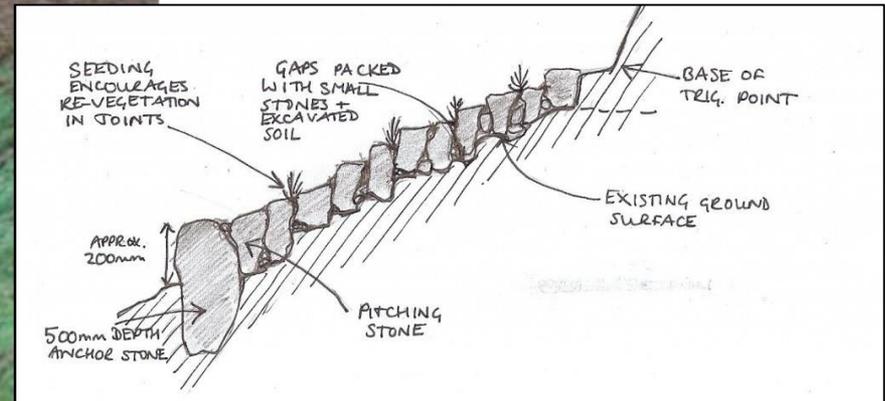
This method involves digging stone into the ground of well eroded paths to form solid footfalls e.g at Whiteless Pike, Buttermere (below).



2003: path badly eroded



2004: stone pitched path now reduces erosion



Effective?

Other issue: many argue that building decent well-maintained paths will actually just encourage more walkers to use them, giving greater risk of trampling and erosion

Benefits of Stone Pitching

Hard wearing and low maintenance

Traditional technique which uses natural

Blends well into the surroundings

Suitable on steep gradients

in snow apply

Can be uncomfortable to walk on particularly in descent

Expensive at more than £100 per metre



The Park Authority predicts that it will need £5.5 million over the next 10 years for stone-pitching and other path maintenance techniques for its 145 upland paths.

Tourists v Local Residents

Issue 2: Footpath Erosion

Solving the problem?

2. Re-seeding the mountain sides with fertiliser & grass seed, can be referred to as **re-seeding**

A mechanical digger is used to construct a turfed ditch. The sub-soil material removed from is placed alongside the eroded path to produce a solid, hard wearing walking surface. A specialised grass seed mix is then sown to encourage a rapid re-generation of the vegetation to bind all the works together. Within a couple of growing seasons, the repaired route can look as though there has never been any damage.

A path on Helvellyn which has been subject to soil inversion and re-seeding. The erosion scar in 2002 was almost 8 metres wide. By 2003 it was almost invisible after re-seeding



July 2002



October 2003

Effective?



Benefits of re-seeding	Drawbacks of re-seeding
Hard wearing and low maintenance	Requires highly experienced and skilled drivers
Uses only materials on site – no transport of materials	Access for machinery can be difficult
Blends very well into the surroundings	Can take several growing seasons to re-establish
Positive feedback from users - comfortable to walk on	Poses difficulties when used on paths with a gradient above about 15°
Cost effective at around £20 per metre	

Tourists v Local Residents

Issue 2: Footpath Erosion

Solving the problem?

3. Educating path users

Advice given out by the National Park Authority through leaflets, notice boards and websites

When out on the fells, please:

Place your feet thoughtfully; a single foot

causes wear and tear on the earth

Keep to the path surface: do not

vegetation at the edge

Remember that the sites

survive on mountains are

to trampling

Do not take shortcuts

soon follow your tracks

develop.

Do not build or add to cairns

from paths can make problems

Remember, there may be only one of you, but 10

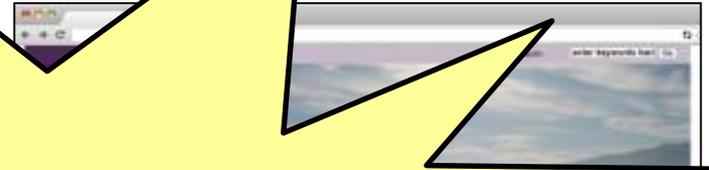
million pairs of feet tread the Lake District paths

each year!

Effectiveness? Inexpensive.

Focuses on prevention rather than cure so pre-empts erosion problem.

Needs to be widespread across park in order for it to be fully effective.



Tourists v Local Residents

Issue 3: “Honeypot” Towns

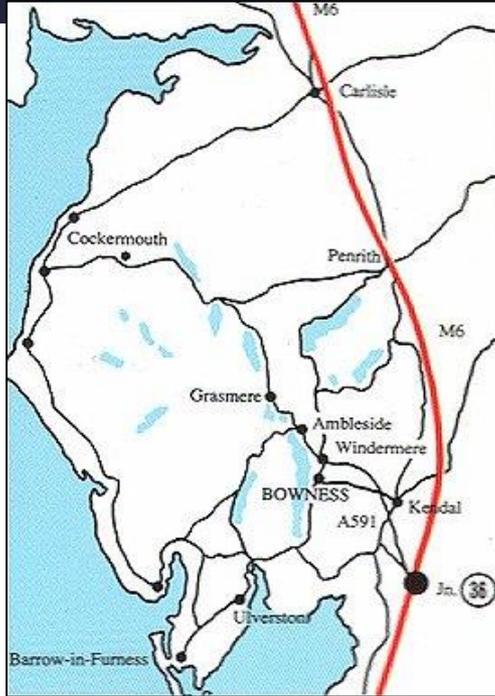
What’s the problem?

A honeypot is a place which attracts very large numbers of tourists. It may be due to a Physical feature (such as Helvellyn Mountain) or a Human feature (such as Keswick village with its tourist shops/attractions). Attracting large numbers of tourists can bring lots of benefits (customers for hotels, restaurants and tourist shops) but also lots of issues – such as congestion and prices in shops being raised which local people have to pay.

In the Lake District there are many conflicts of interest around Honeypots. In places like Bowness on Windermere they try to concentrate facilities for tourists such as car parks, toilets and street cleaning. In other places the National Park authorities don’t improve areas so that visitors are persuaded to go somewhere else so you don’t get too many people at any one place. This is known as ‘rationing’ and can help disperse visitors.



The issues of Honeypots: Bowness on Windermere!



Bowness-on-Windermere is a Lake District honeypot on the eastern shore of Lake Windermere because :

- It is on England's largest lake – Lake Windermere
- It is the first place visitors come to on a lake as they leave the M6 motorway so is very accessible by car
- It has all the features visitors expect from a typical Lake District location – lake, hills, trees.
- There are many facilities in the town for visitors – car parks, toilets, cafes, tourist shops.
- There are activities visitors can do – go for a walk along the shore, take a rowing boat, go on a lake cruise, explore the islands in the lake.



Work with a partner. Identify the benefits and problems caused by the sheer volume of visitors to Bowness.

The issues of Honeypots: Bowness on Windermere!



Did you identify these?



Benefits of tourism for local people

- Businesses that rely on tourism get much greater income – hotels, cafes, souvenir shops, outdoor clothes shops, cruise boats, rowing boat hire.
- There are more employment opportunities for local people in the tourism sector.
- Other parts of the Lake District are quieter as so many visitors just go to Bowness before going home
- Key tourists attractions have been built in Bowness make more money from visitors – Beatrix Potter World (museum)
- Investment goes into local services and roads

Problems caused by tourists that affect local people

- Car parks get full quickly – locals find it hard to park
- Massive Traffic congestion in the narrow main streets of the town in summer
- Car-parks concentrate thousands of visitors into the same starting point for their walks so paths wear
- Local people feel the town isn't theirs in summer
- house prices have gone up with ex-visitors retiring to the town – making houses too
- Prices in local shops increase
- Jobs in the town are seasonal
- Litter increases due to the sheer influx of visitors; people picnicking and barbecuing.
- Tourist buildings such as hotels are often unsightly and ruin natural views.

Tourists v Local Residents

Issue 3: "Honeypot" Towns

Solving the problem?



How effective are these methods?

Ways of Managing the Bowness Honeypot

- A one-way system round the town helps keep traffic moving smoothly
- Plans to Pedestrianise the centre of Bowness
- Creating 'Gateway car-parks' at the edge of Bowness to capture visitor cars as they arrive
- Establish 'year-round' visitor attractions in Bowness to spread visitors through the year.
- Building affordable local housing through housing associations and restrict occupancy to people who have lived and worked in the area for 3 years.

There is less congestion on local roads. Traffic flow has improved.

Still to be achieved. Could reduce traffic problems but might increase pedestrian flow in town.

Park and rides cut down traffic in town centre. Can destroy natural areas on town's edge

Year round attractions cuts down on seasonal employment and gives more opportunities throughout year.

Housing is available for locals at reasonable prices.

Quarrying v local residents

What's the Issue?

Quarrying is...*the extraction of rocks and other materials from the earth's surface through blasting. Quarried materials include gravel, slate and limestone*

Slate is quarried in the Lake District from 10 quarries, e.g at Coniston.

Advantages of Quarrying

- creates job opportunities.
- multiplier effect, created by creation of jobs, more money in the area and more services supported
- great demand for slate for building purposes as well as other products.
- it is a raw material needed to support both the local and national economy
- roads improved to cope with the large lorries (benefits the local community)
- the quarry provides a source of money for the local council through taxes and rates



Disadvantages of Quarrying

- blasting for quarrying releases large amounts of dust (problem for asthma sufferers and pollutes water supplies)
- leaves an ugly scar in the land when abandoned (an eyesore)
- heavy lorries transporting slate cause congestion on narrow roads and increase the likelihood of accidents
- wildlife and habitats are destroyed and lost
- noise pollution from the blasting disturbs both wildlife and local people
- heavy lorries cause more frequent costly repairs to roads to be made.

Quarrying v local residents

Solving the conflict?

What can be done to reduce the problems associated with quarrying?

1. Earth Mounds - these are built around the quarry to **reduce the impact of noise from blasting on the local area**
2. Water sprays - these can be used to **reduce the spread of dust from the quarry**
3. Restrictions are put on the size of the quarry that is allowed. **Reduces visual impact.**
4. Blasting is only allowed during designated areas to minimise impact on locals
5. Quarry's are often screened off e.g. by trees etc.. **to reduce visual impact**
6. Restoration plans are often put in place following the decommissioning of a quarry - examples have included the development of wetland habitats, lakes and other conservation / recreation areas. **Conserves the landscape.**



Trees planted to screen quarry



Water sprays reduce quarry dust

Exam Type Questions

“Explain the environmental conflicts that may occur in a named upland area you have studied (You should refer to named locations within your chosen landscape).”

10 Marks

Tips:

- Name your case study.
- Identify a conflict e.g. tourists v local residents.
- Explain reasons why each of these land uses is in conflict.
- Make reference to named examples.



An example answer!

In the Lake District National Park there is often conflict between tourists and local residents. This tends to be common in “honeypot” towns such as Bowness on Windermere where tourists visit in their thousands especially in the summer months. 90% of tourists visiting the Lake District come by car or coach. Tourists cause traffic congestion on narrow local roads and often park inappropriately, for example on grass verges. This annoys local residents who cannot get around easily. They also complain about the problems of air and noise pollution caused by the excess traffic. Many roads are narrow, steep and winding, making them unsuitable for large volumes of traffic and tourist coaches. There are other issues caused by tourists. Many residents argue that tourists increase levels of litter in the area and that tourist buildings and attractions such as hotels are visually unsightly and spoil the natural landscape. A further environmental issue is that of footpath erosion, especially in common walking routes like Helvellyn. The Lake District has over 10 million walkers a year. Many paths have become eroded and scarred by wear and tear. Eroded paths are not only unsightly, but unpleasant to walk on and can lead to habitat loss as well as damage to the heritage, archaeological and natural history qualities of the area.

Another conflict is between quarrying and local residents. Quarries such as that at Coniston extract slate to use in the building industry. Local residents say that blasting for quarrying releases large amounts of dust causing a problem for asthma sufferers and polluting water supplies. They also state that quarrying leaves an ugly scar in the land when abandoned and that heavy lorries transporting slate cause congestion on narrow roads and increase the likelihood of accidents. Wildlife and habitats are destroyed and lost and noise pollution from the blasting disturbs both wildlife and local people. heavy lorries cause more frequent costly repairs to roads to be made.

Exam Type Questions

- a) *“Explain specific solutions to environmental conflicts in a named upland area you have studied.”*
- b) *Comment on their effectiveness*

10 Marks

Tips:

- Name your case study.
- Identify a conflict e.g. tourists v local residents.
- Describe solutions to this specific conflict with reference to examples.



An example answer!

In order to solve the conflict between tourists and local residents in the Lake District National Park, several methods have been used. In terms of traffic, public transport improvements have been implemented to reduce the volume of vehicles on the narrow roads, for example a Cross Lakes Shuttle bus which links the lakes of Windermere and Coniston Water and services the honey pot sites of Hawkshead, Grizedale and Tarn Hows. Walking and cycle routes have also been improved through investment, for example In 2012 Government funding of £7 million was secured for a three-year scheme called 'Drive Less, See More'. It aims to create a 'boats, bikes, boots and buses' network throughout the national park to cut down on traffic congestion.

Other strategies include restricted parking, for example at the bottom of Catfell Mountain where yellow lines have been painted to stop people parking. A one way system has been introduced into Ambleside to improve traffic flow. Park & Ride schemes such as that in Grasmere have been introduced. These methods are effective at encouraging visitors to use public transport and can cut down on traffic congestion and vehicle emissions in the honeypot towns. However, park and rides require available plentiful land outside of towns and can cause more damage to vegetation and landscape during their construction. Cycle route and footpath improvements are costly to establish and maintain. Not all users to the Park will want to / be able to cycle or walk.

To deal with footpath erosion, stone pitching into the ground of well eroded paths to form solid footfalls is being conducted in several areas e.g at Whiteless Pike, Buttermere. This creates hard wearing surfaces for walkers thereby reducing erosion. The stone used is local so blends in with the surroundings. However at a cost of £100 a metre it is an expensive solution. Indeed, overall the National Park Authority predicts that it will need £5.5 million over the next 10 years for stone-pitching and other path maintenance techniques for its 145 upland paths. Locals argue that maintaining the paths and creating better walking surfaces will only serve to increase the volume of walkers using them which will further increase erosion rates.