Landscape character, values and wind farms in Scotland

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Scottish Natural Heritage
Dualchas Nàdair na h-Alba

Scotland's experience:

1. Landscape character

2. Landscape values

3. Landscape and wind farms

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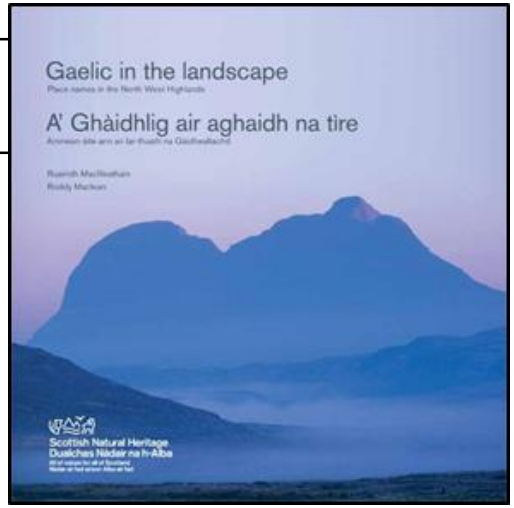
SNH landscape remit

- Part of our remit in the Natural Heritage Act - "***natural beauty & amenity***"
- Statutory adviser to Government and Local Authorities on landscape issues
- Statutory consultee on landscape matters in a wide range of legislation
- National expertise in landscape issues, guidance and policy.



European Landscape Convention

"An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."

SNH broad landscape aims

To safeguard and enhance for all of Scotland's landscapes their

- **distinct identity,**
- **diverse character,**
- **special qualities.**

To ensure tomorrow's landscapes

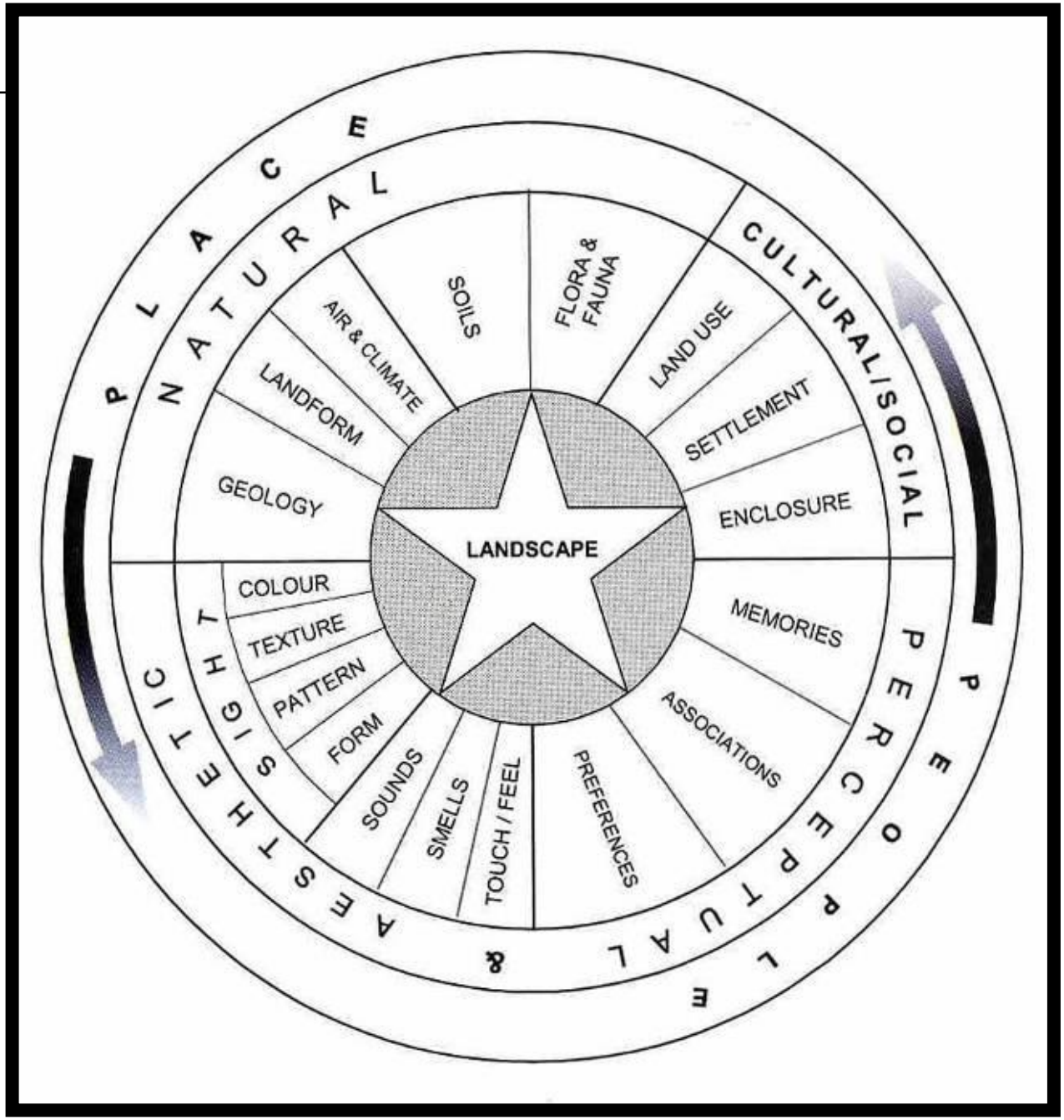
- **contribute positively to people's environments**
- **are at least as attractive and valued as today's.**

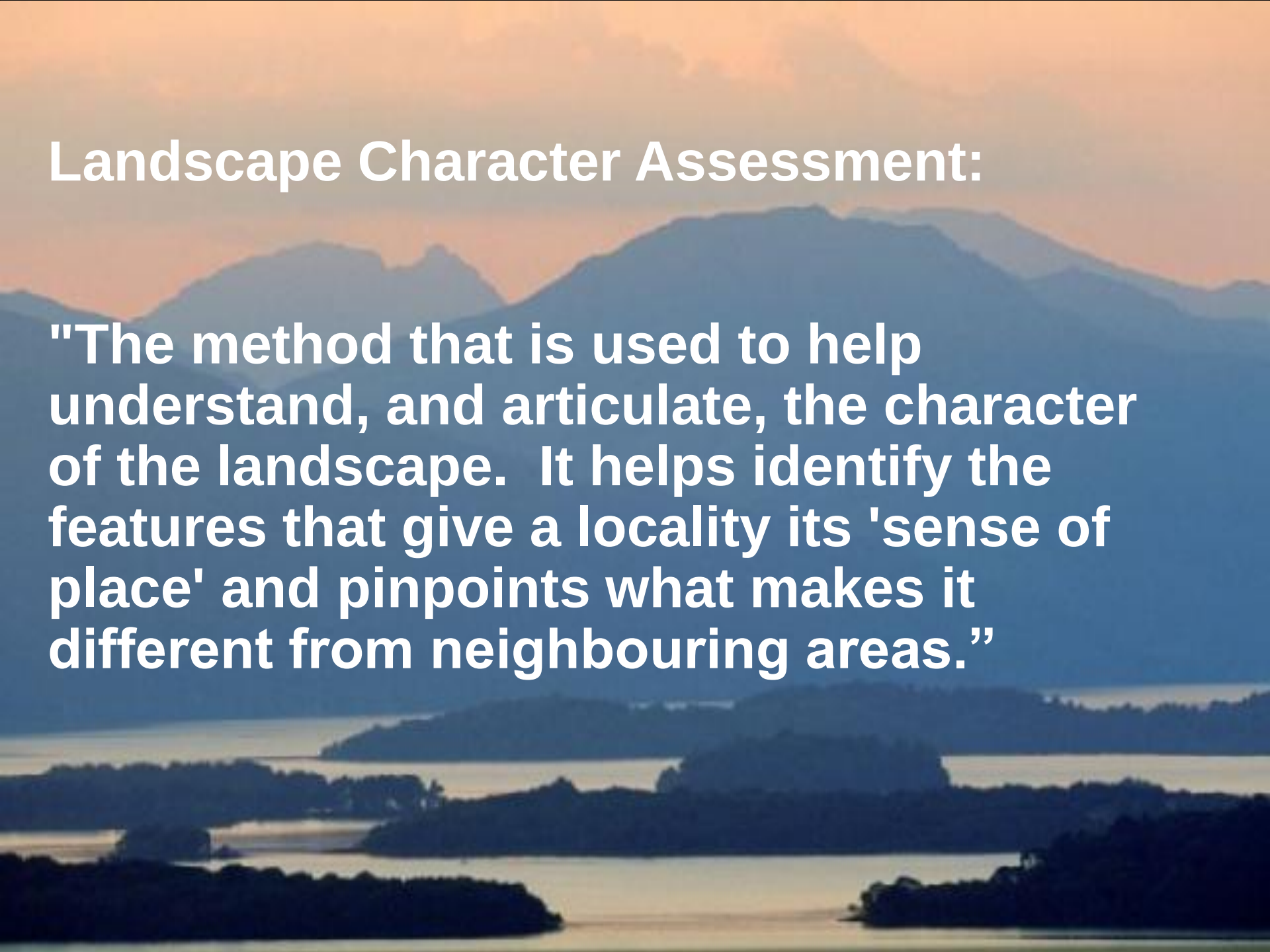
Principles of SNH's approach

- Scotland's landscapes are a shared responsibility
- all Scotland's landscapes deserve attention
- Scotland's landscapes will continue to change
- Scotland's landscapes deserve greater care

1) Landscape Character

Landscape is more than the appearance of the land.





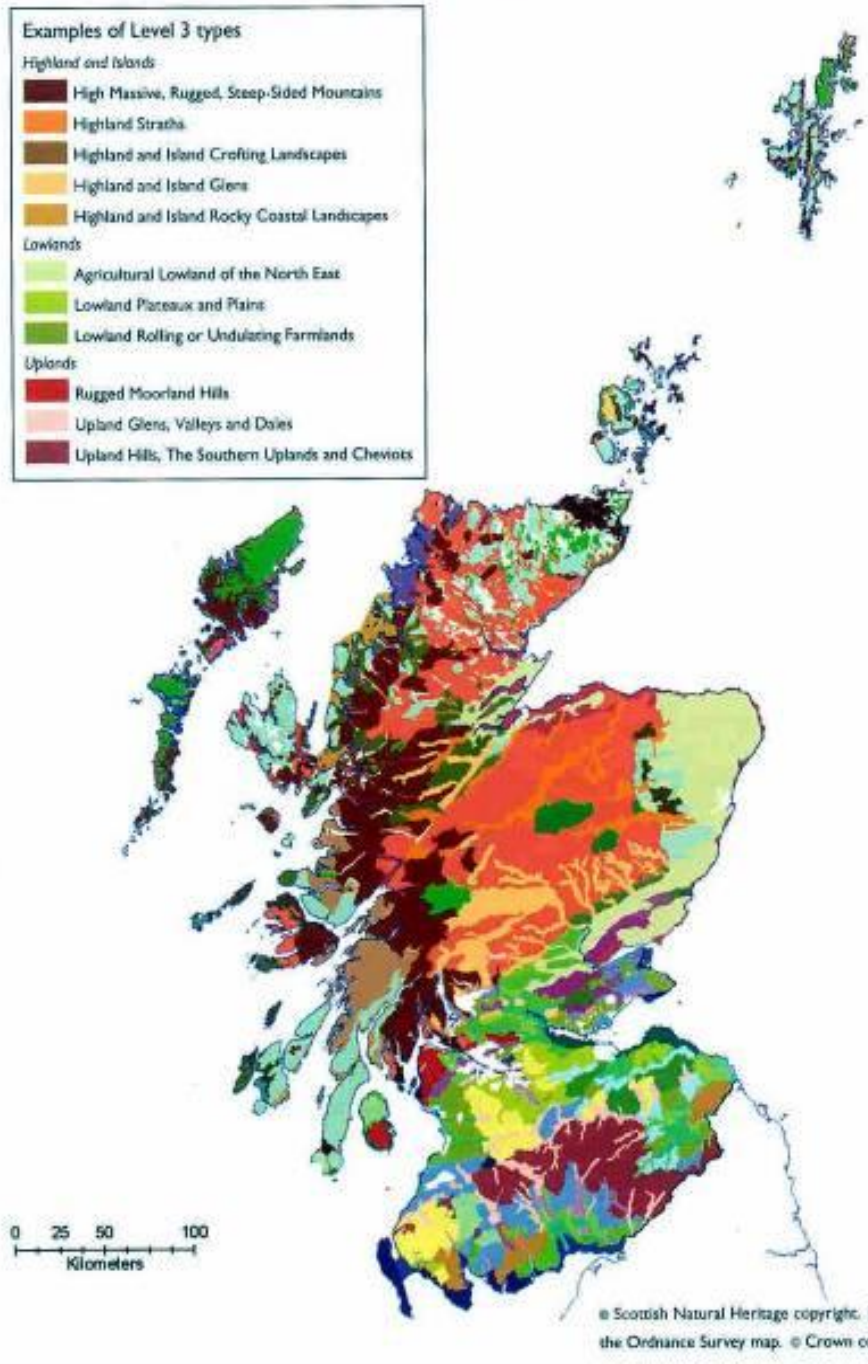
Landscape Character Assessment:

"The method that is used to help understand, and articulate, the character of the landscape. It helps identify the features that give a locality its 'sense of place' and pinpoints what makes it different from neighbouring areas."

Scotland's LCAs

- **29 studies, 1:50,000 scale**
- **undertaken in co-operation with local authorities, Forestry Commission etc.**
- **similar methodology**
- **366 Character Types summarised into 52 at broadest level**

Figure 6.4: Scotland - Level 3 landscape character types



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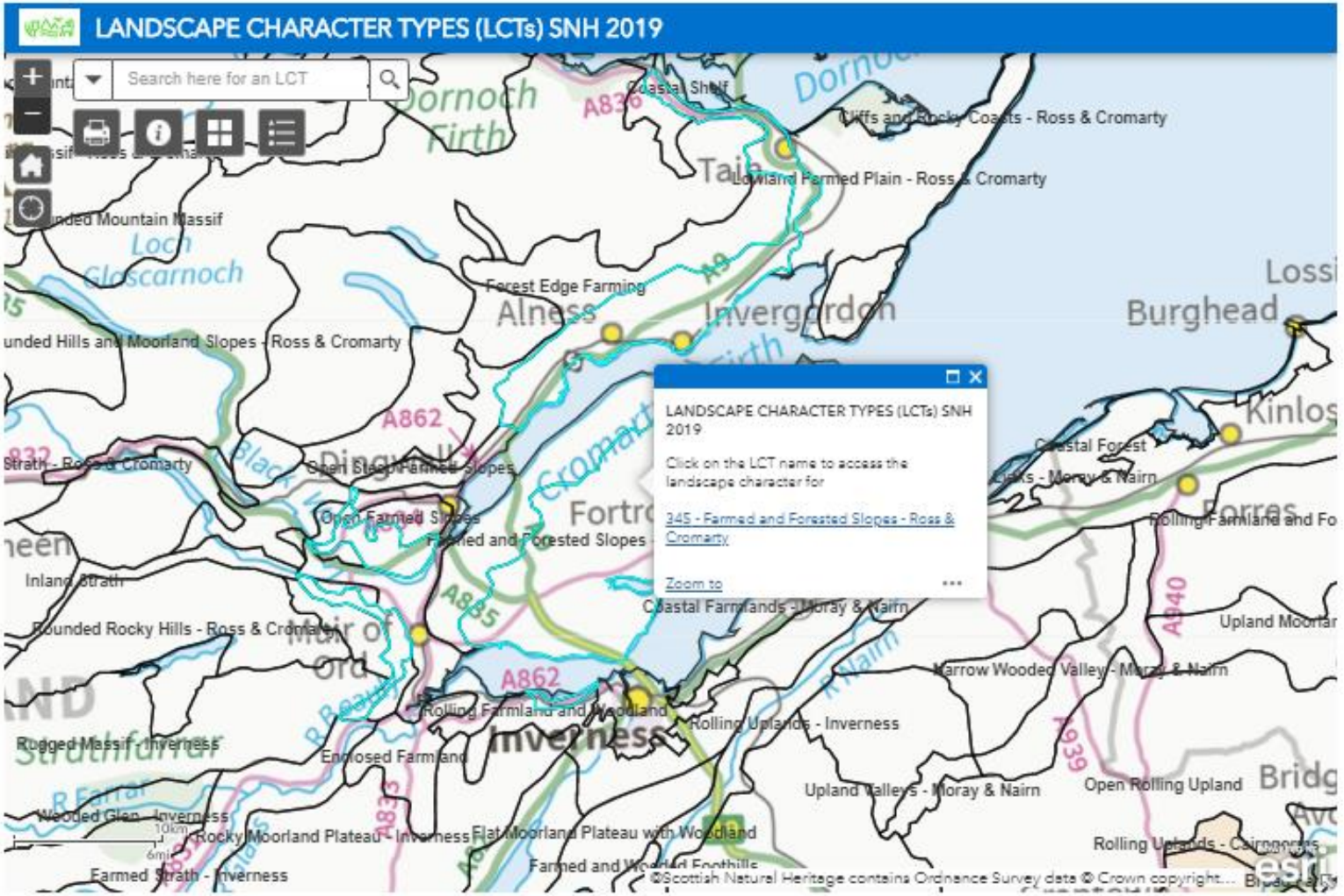
LANDSCAPE CHARACTER TYPES (LCTs) SNH 2019
Search here for an LCT
LANDSCAPE CHARACTER TYPES (LCTs) SNH 2019
Click on the LCT name to access the landscape character for
345 - Farmed and Forested Slopes - Ross & Cromarty
Zoom to
Coastal Farmlands - Moray & Nairn
Dornoch Firth
Tain
Alness
Invergordon
Burghead
Inverness
Forest Edge Farming
Lowland Farmed Plain - Ross & Cromarty
Cliffs and Rocky Coasts - Ross & Cromarty
Rolling Farmland and Woodland
Rolling Uplands - Inverness
Enclosed Farmland
Rugged Massif - Inverness
Narrow Wooded Valley - Moray & Nairn
Upland Valleys - Moray & Nairn
Open Rolling Upland
Flat Moorland Plateau with Woodland
Rocky Moorland Plateau - Inverness
Farmed Strath - Inverness
Inland Strath
Rounded Rocky Hills - Ross & Cromarty
Open Farmed Slopes
Farmed and Forested Slopes
Coastal Forest
Rolling Farmland and Fo
Upland Moorlar
A862
A832
A835
A939
A940
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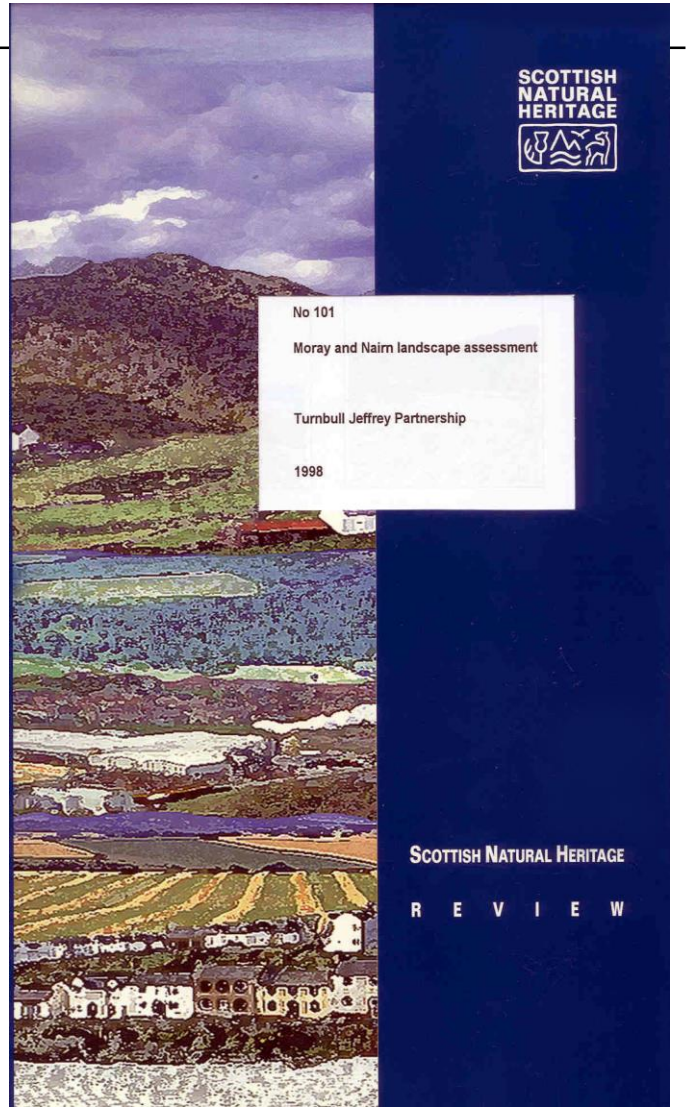
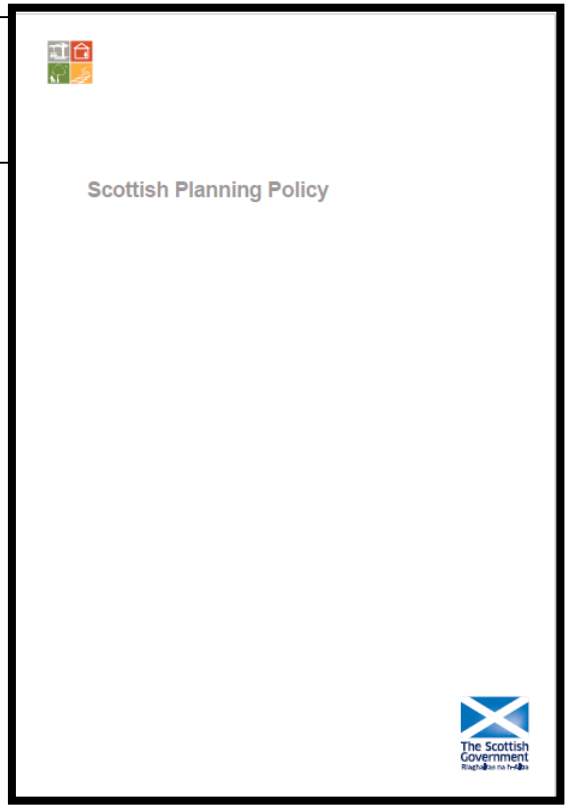
Application of Scotland's LCAs

- an objective resource in describing landscape & landscape change.
- provides the baseline information for EIA
- helps in development management casework responses
- basis for further work e.g. capacity and sensitivity studies
- embedded in planning system



Scottish Planning Policy



- **the planning system should "*facilitate positive change while maintaining and enhancing distinctive landscape character*" (para 194).**

- **"*Development management should take account of … landscape character… Developers should seek to minimise adverse impacts though careful planning and design …*" (para 202).**

LCA methodology

define scope

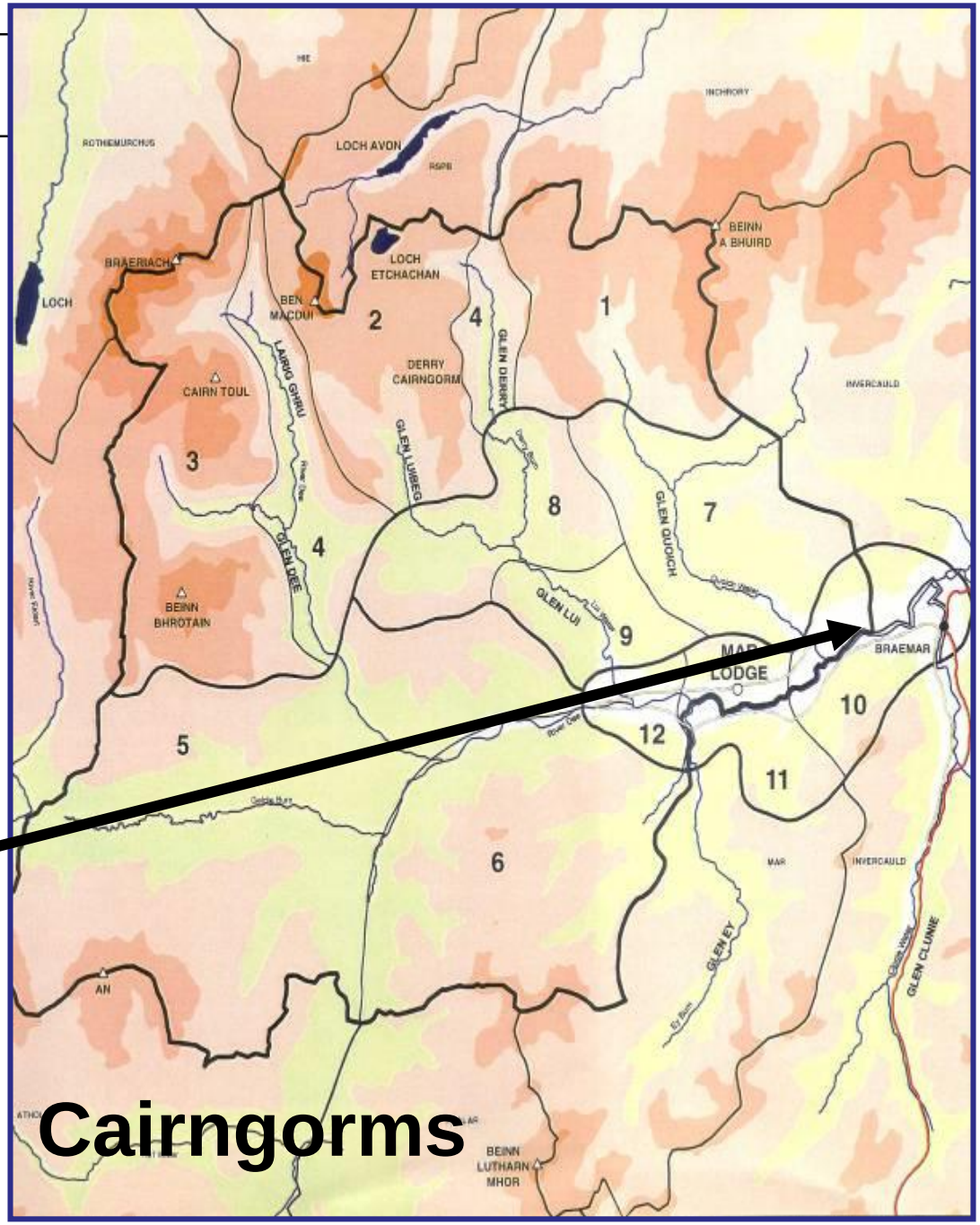
desk study

field survey

classification & description

production of guidelines / recommendations

Individual areas identified, described & mapped



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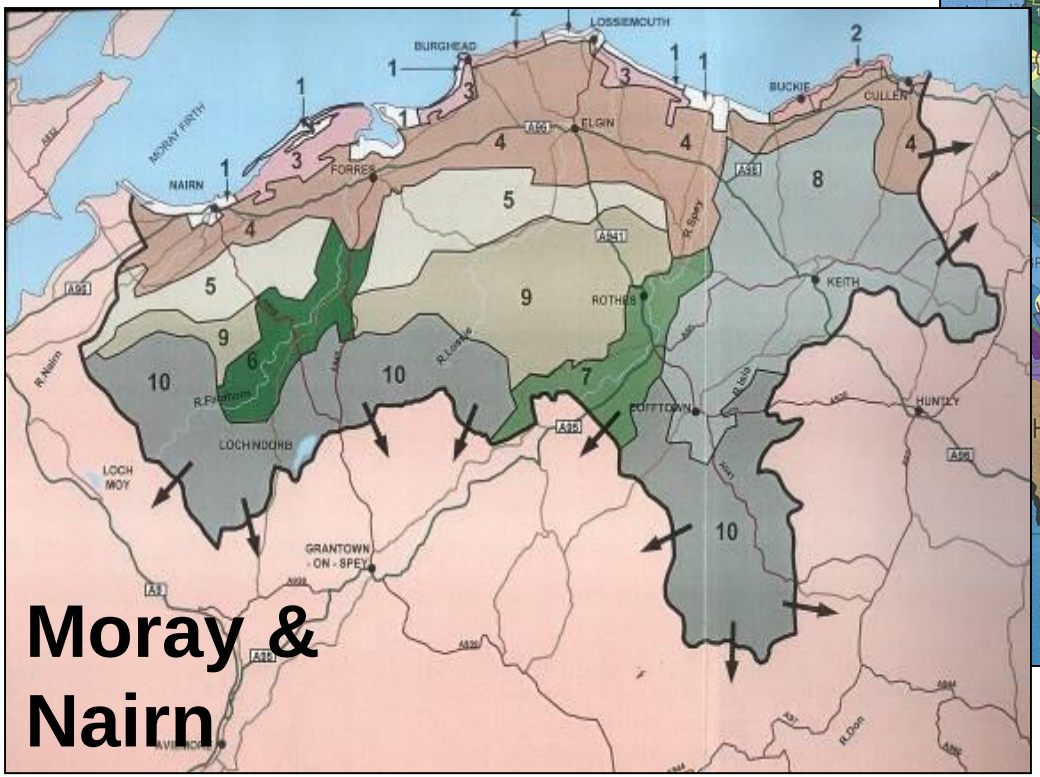
Orkney

Key characteristics noted

Forces for change identified and guidance provided

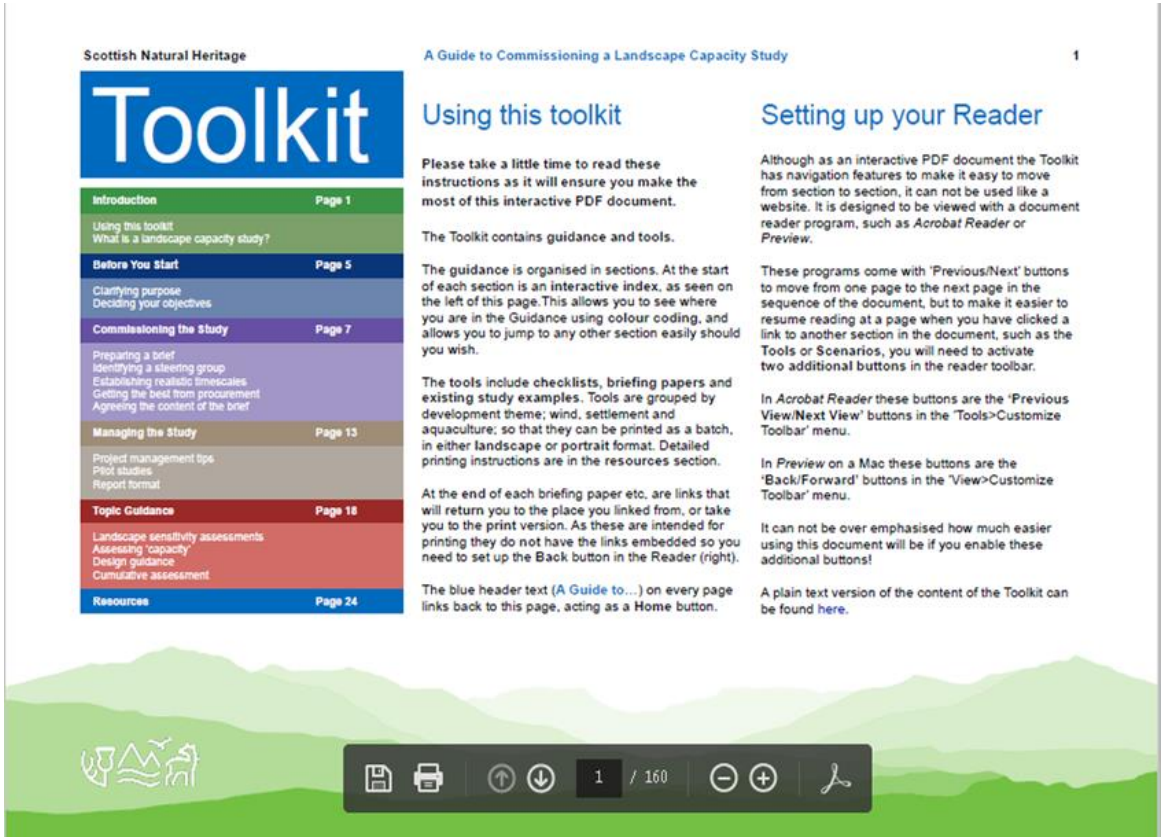


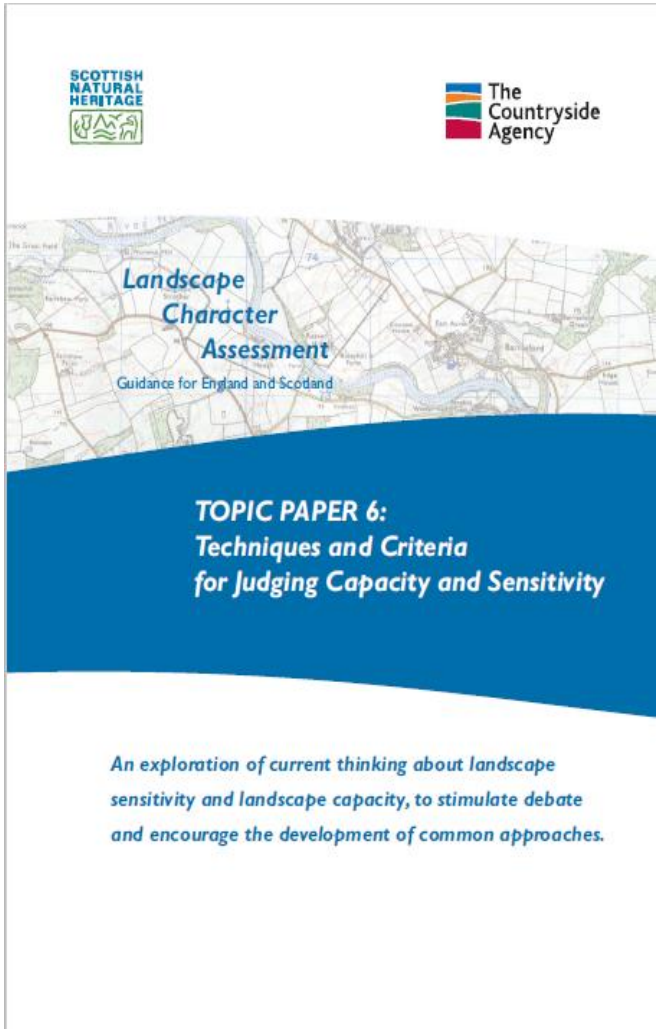
Moray & Nairn

other uses for LCA

- basis for village design statements
- to inform design
- basis for monitoring landscape change
- basis for sensitivity / capacity studies
- inform townscape characterisation
- links to historic and cultural landscape studies

Capacity Studies



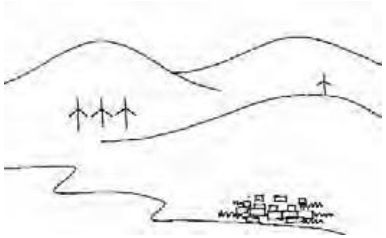


Capacity Studies

- **Strategic or regional scale broader assessment**
- **Does NOT preclude the need for individual assessment of impact**
- **Does NOT give specific guidance of *how much* development**
- **Assessment of capacity time limited – will need reviewing (reflecting cumulative impact and technologies)**
- **Uses professional judgement to assess capacity**

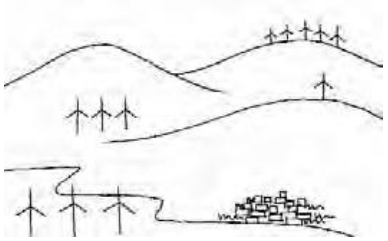
Managing change – what is the landscape objective?

PROTECTION
to maintain integrity and quality of landscape (eg. NSA)



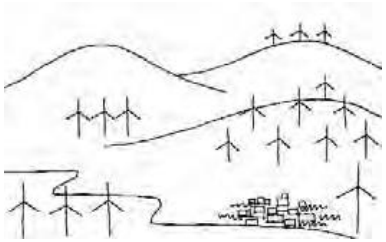
Separate isolated features

ACCOMMODATION
to maintain key characteristics of landscape character
(ie. a landscape *with* wind turbines)



Windfarms become characteristic of landscape

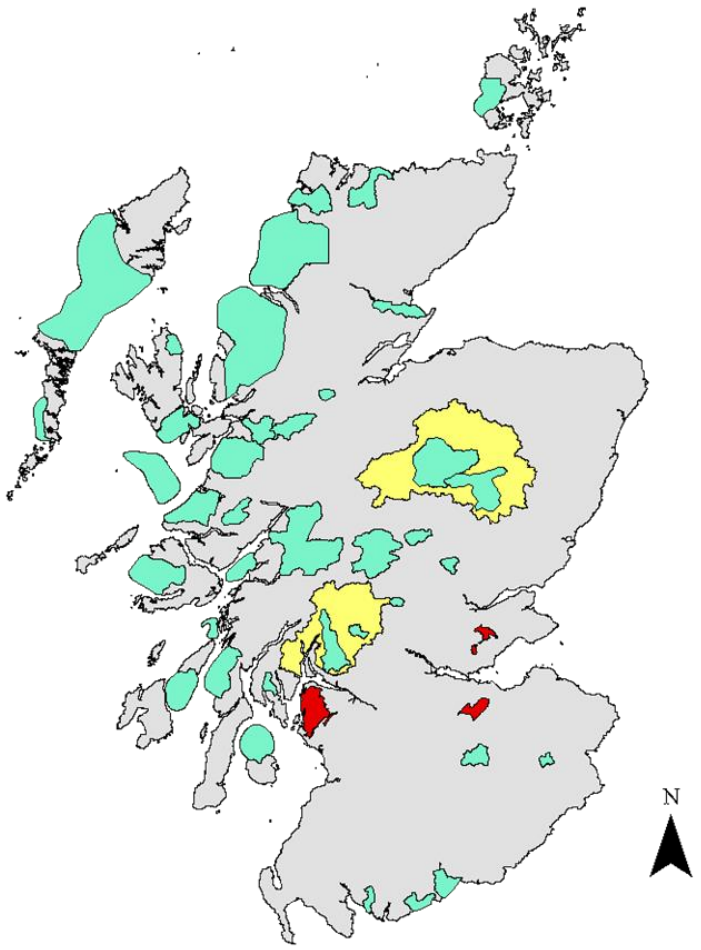
CHANGE
to accept landscape change
(ie. a landscape *of* wind turbines)



Windfarms are dominant characteristic – 'windfarm landscape'

2) Landscape values and designation

- 4 key domestic landscape ‘designations’
- informed by landscape character
- influence is through policy



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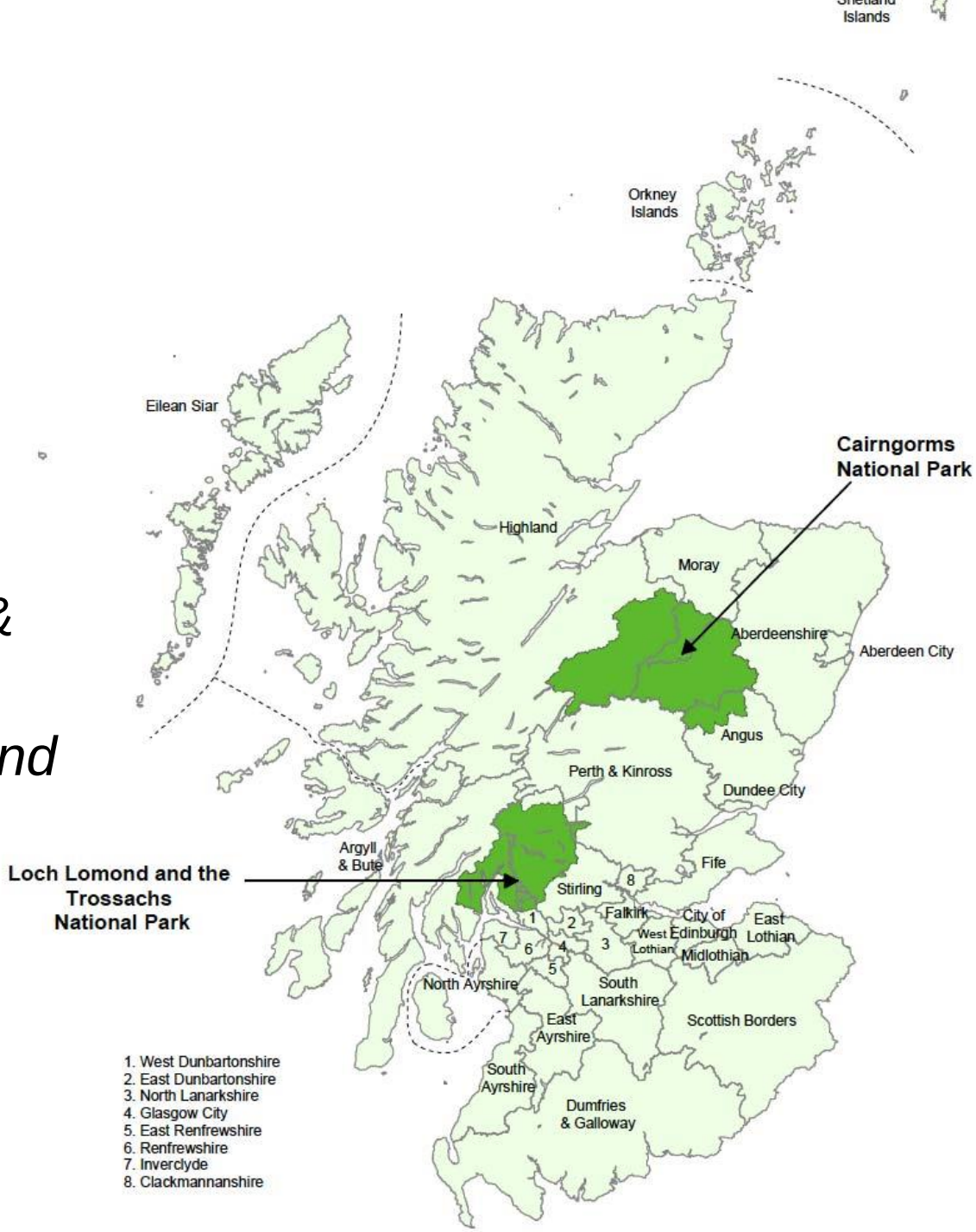
National Parks

Statutory requirements:

- *outstanding national importance*
- *distinctive character & coherent identity*
- *meet special needs and deliver aims*

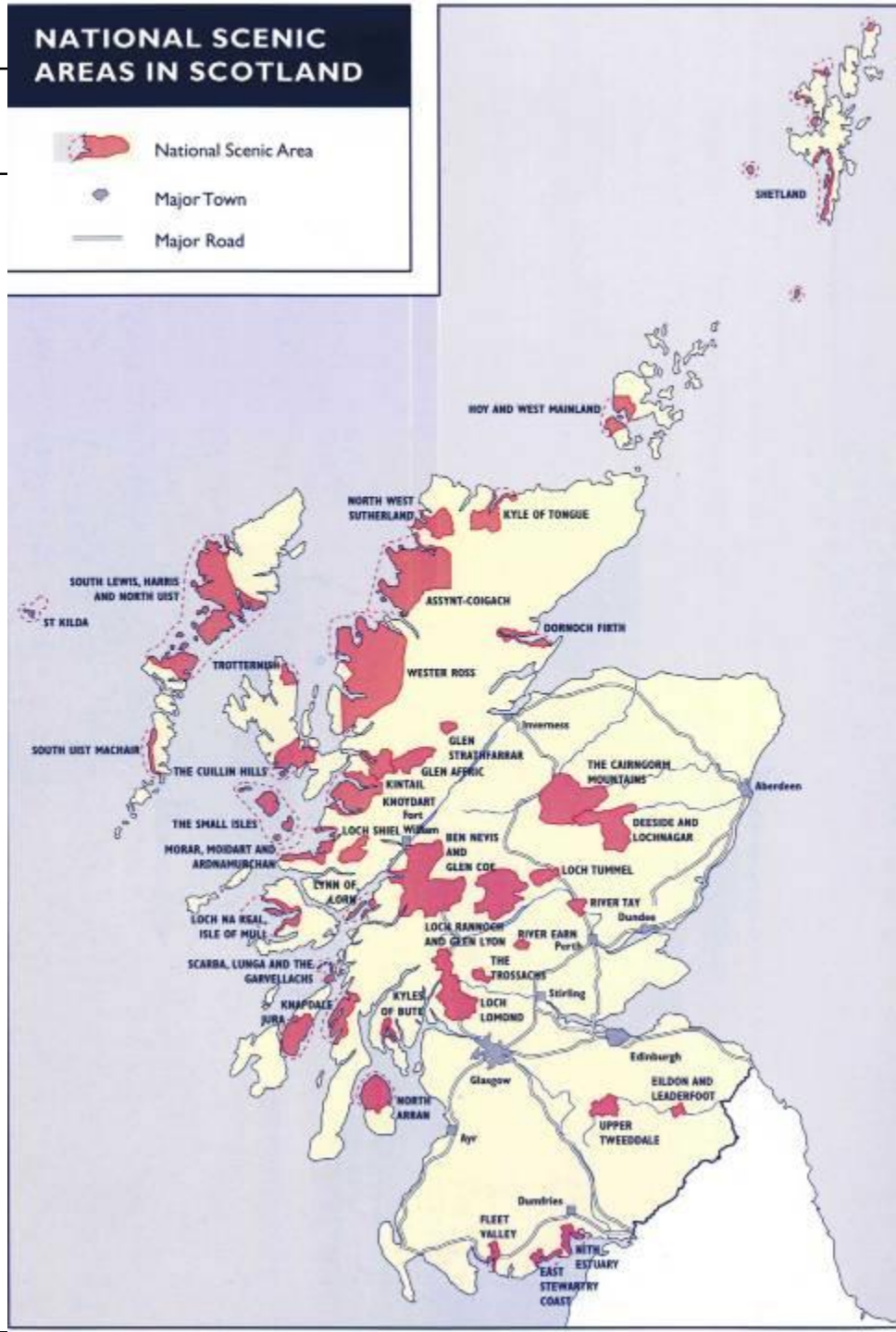


National Park Aims

- To conserve and enhance the natural and cultural heritage
- To promote the sustainable use of natural resources
- To promote understanding and enjoyment of the Park's special qualities
- To promote the sustainable social and economic development of the Park's communities

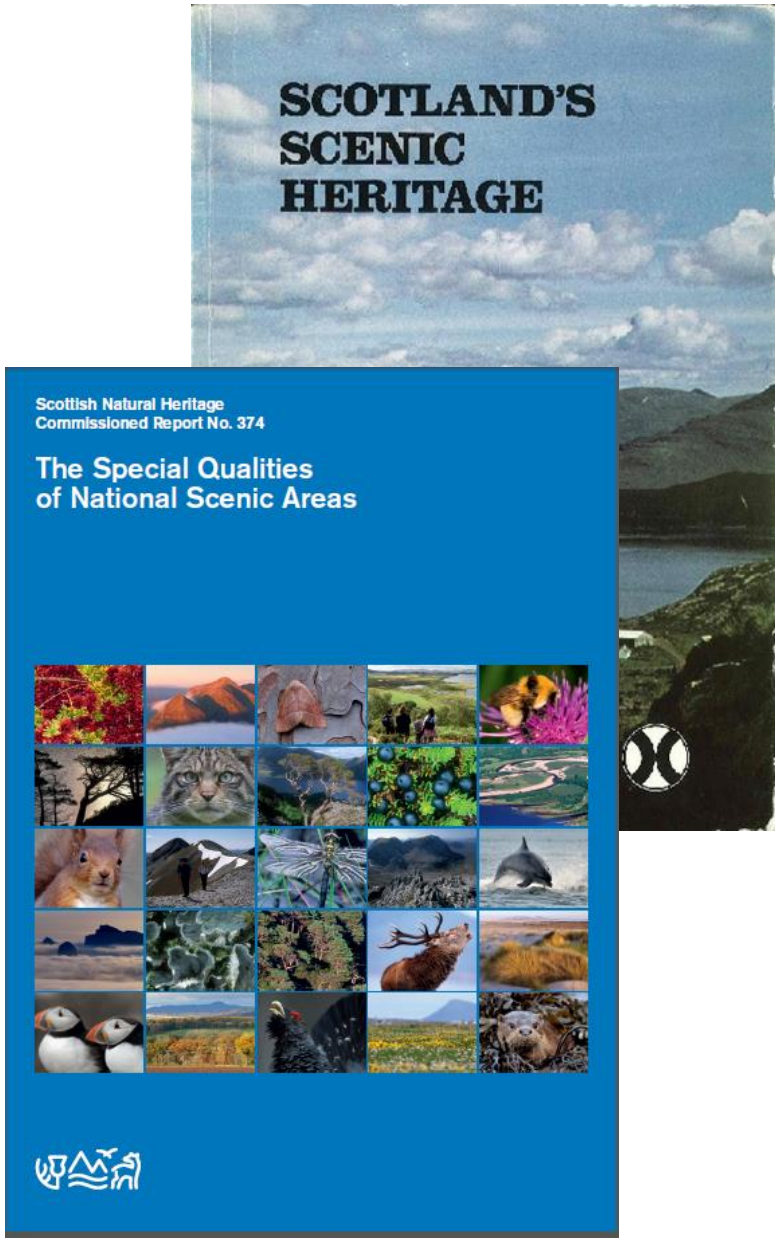
National Scenic Areas

- Must be '*of outstanding scenic value in a national context*'
- requires that *'special attention"* is paid to safeguarding their character



NSA Special Qualities

- the characteristics that individually or combined, give rise to an area's outstanding scenery



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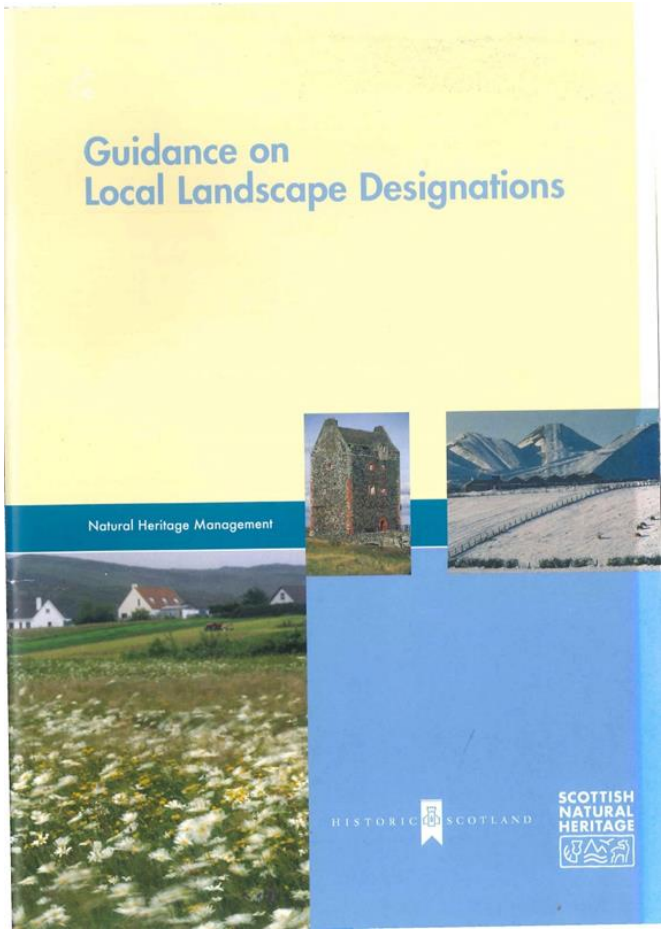
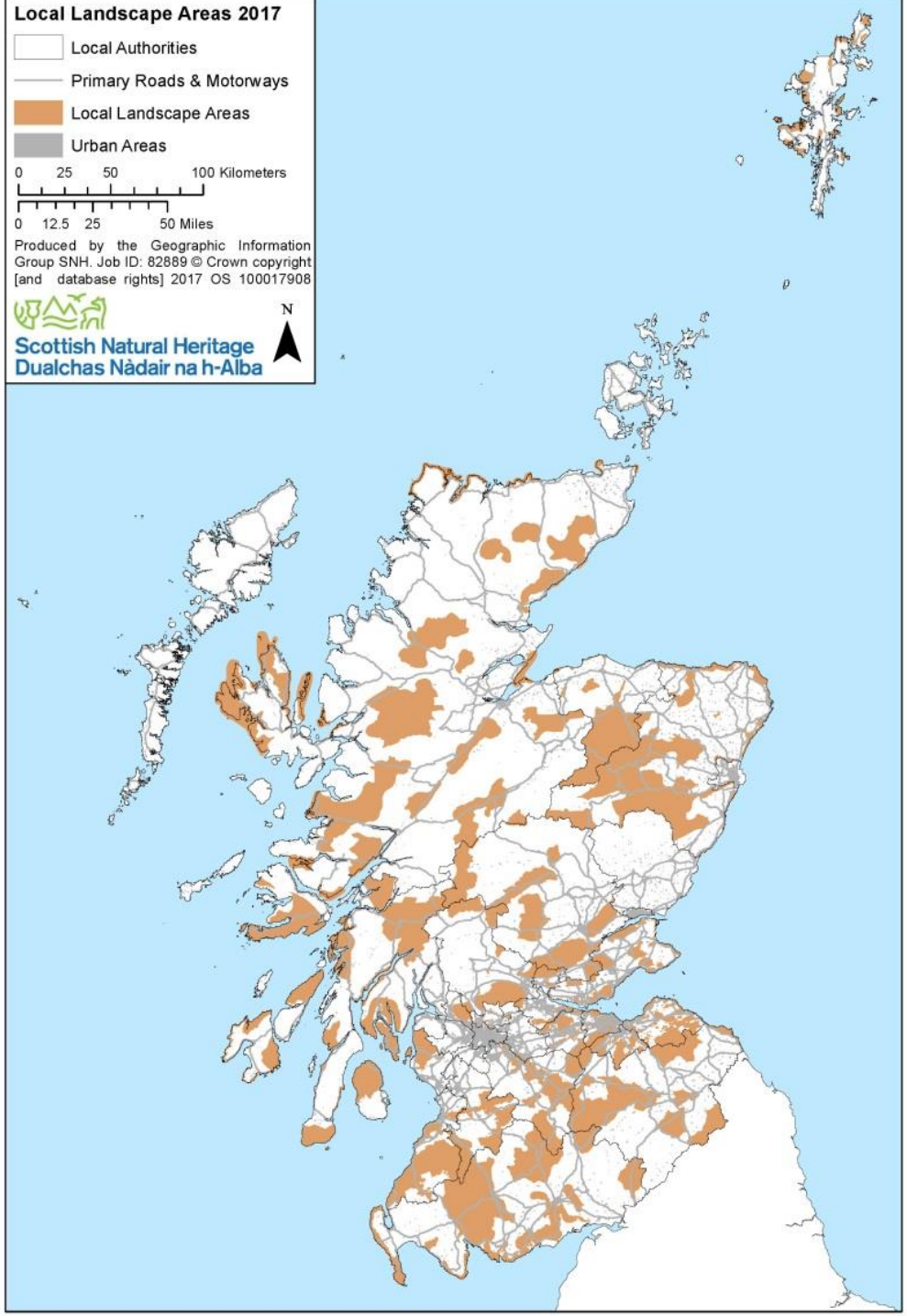
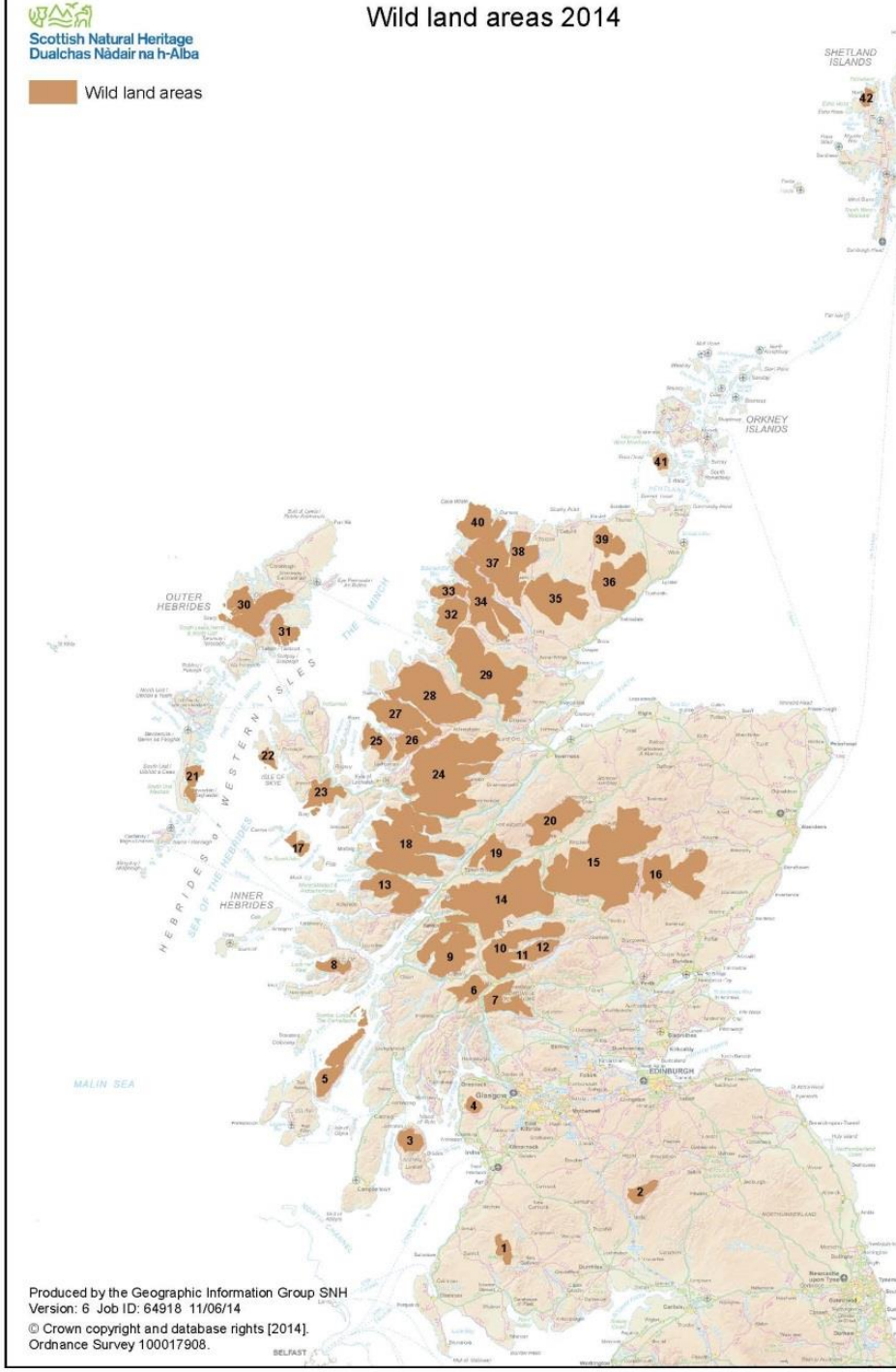
Local Landscape Areas



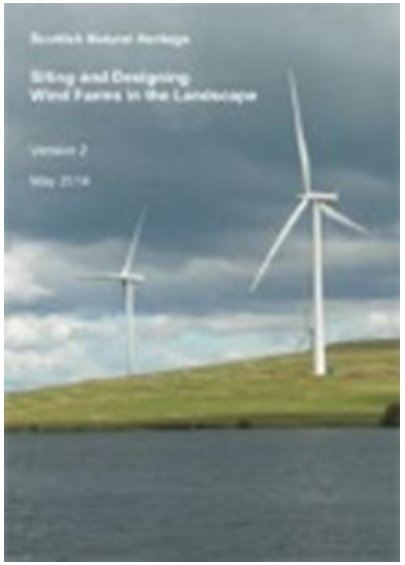


Wild Land Areas

- considered a '*nationally important asset*'
- but not a designation



3) Landscape & Wind farms



Landform

Key Design Principles

•Turbines should be located to respond positively to the underlying landform

•The flattest section of landform should be selected to ensure turbines will be viewed consistently - i.e. on the skyline or back-clothed

• Simple landforms with few distinctive features make it easiest to design a simple well sited wind farm.

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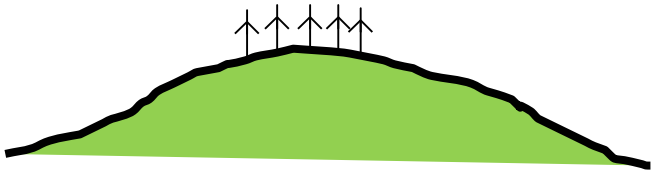
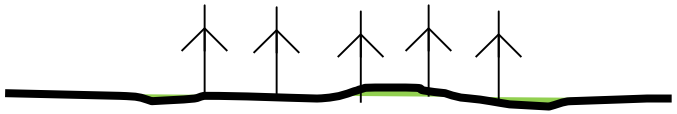
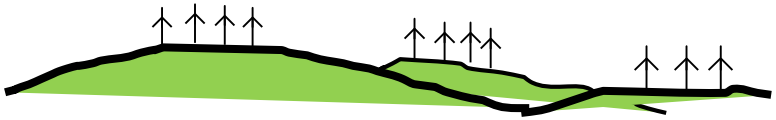
Simple / Uniform ✓



Smooth Hill

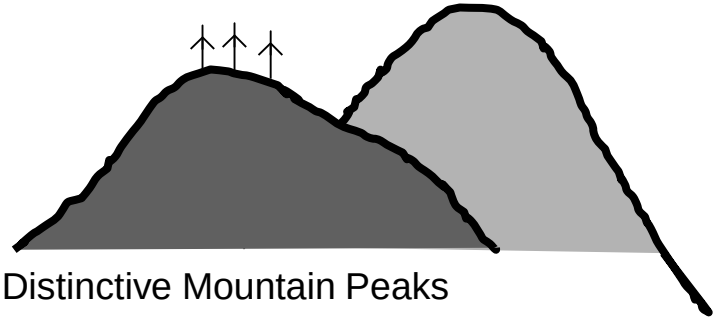


Flat Plateau

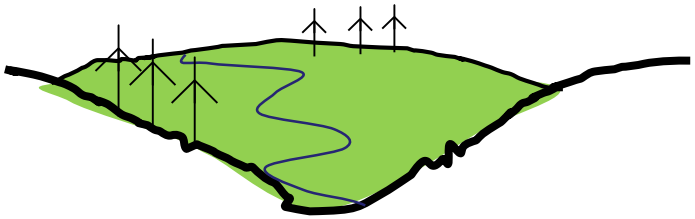


Gently Rolling Hills

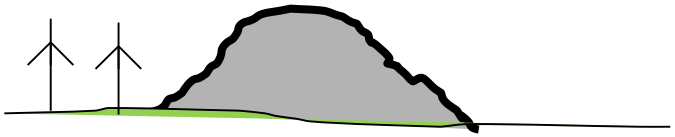
Complex / Distinctive X



Distinctive Mountain Peaks



River valley



Distinctive rocky outcrop

Landscape Scale

Key Design Principles

Finding an appropriate scale in keeping with that of the landscape. The wind farm should be of:

- **Minor vertical scale** in relation to key features – typically less than a third
- **Minor horizontal scale** in relation to key features
- **Minor size** compared to other key features and foci; or separated so that comparison doesn't occur

In general the larger the scale of the landscape the greater the ability to relate to larger development typologies

Landscape scale

Large Scale
(expansive, vast, exposed)

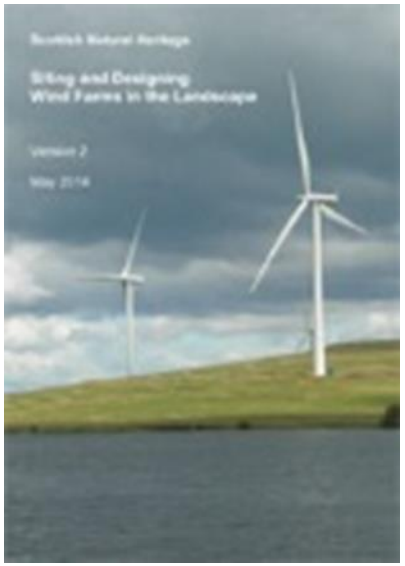
The number and size of turbines should reflect the underlying scale of the landscape

Small Scale
(intimate, contained, enclosed)


Plateau moorland


Incised River Valley

Pattern and Focal Points



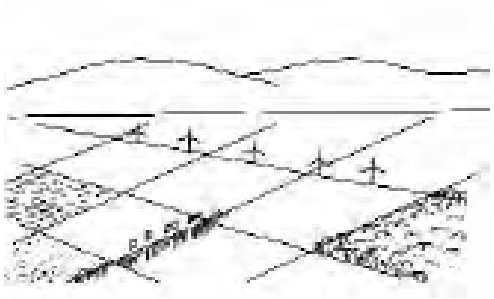
Key Design Principles

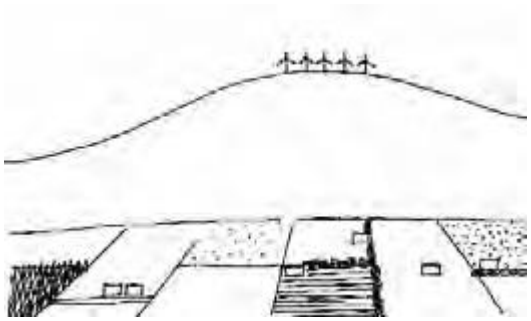
- Turbines should be located to respond positively to the underlying pattern
- Notice should be taken of focal points and hierarchy/scale of landscape components.
- Separation distance and height of turbines can be used to work within this framework without detracting from these key features

Lowland settings often have more complex landscape patterns

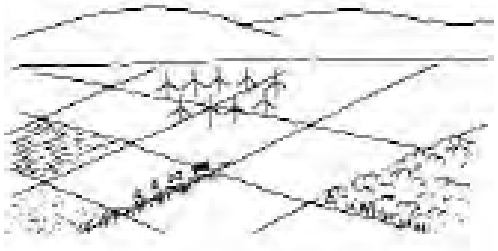
Where there is a strong underlying pattern turbines should relate to this.

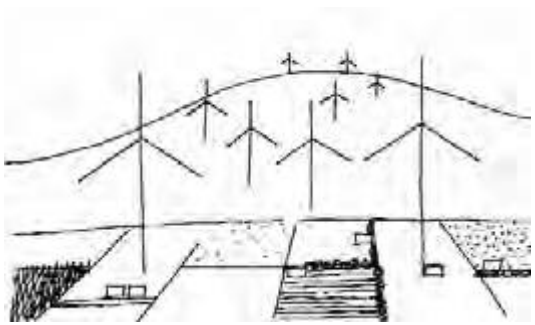
Design relates to pattern ✓



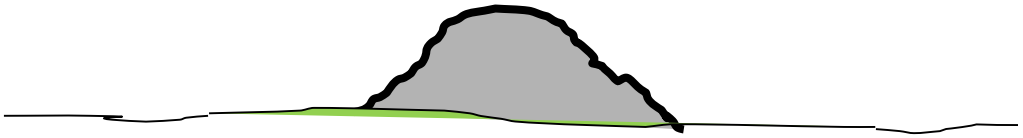


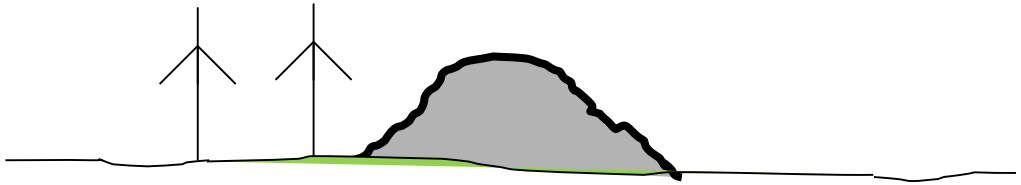
Design does not relate to pattern X

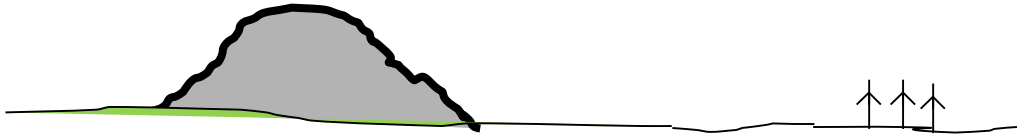




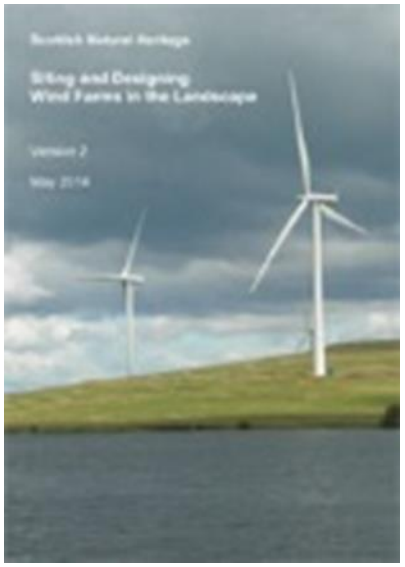
Focal features can be man made or natural







Pattern and Settlement

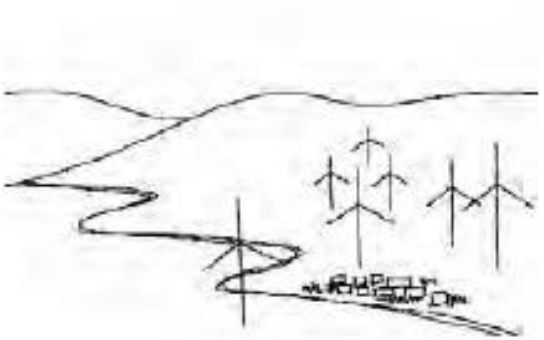


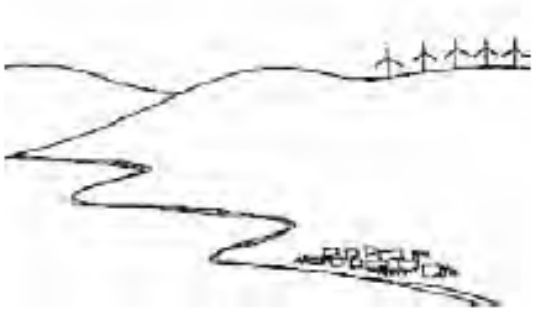
Key Design Principles

- Turbines should not dominate or negatively affect settlements.
- The aim should be to minimise the sense of imposition upon buildings and more intimate places
- The scale of the turbines must relate to local landscape features and buildings.

Settlements and buildings within a landscape tend to be sensitive to the development of a windfarm for three main reasons:

- by being places from which a people will view a wind farm with a key quality of shelter/ refuge
- because buildings act as a size indicator in views that may emphasize the much greater scale of wind turbines in comparison
- because the settlement itself often forms a focal feature / landscape pattern to which a development would need to relate.





Landscape Context

Key Design Principles

- **Expansiveness and size -** e.g. turbines will be less likely to influence other landscapes if they are located in the core of a large tract of moorland.

- **Containment -** e.g. elevated plateau tend to be difficult to see from the bottom of a valley, hills can provide enclosure

- **Avoid** impacting on focal points, complex or smaller landscapes that neighbour or cross the landscape that the turbines are located in – hence why larger areas of simple landscapes are best.

Perceptual qualities



These qualities relate to what we perceive in the landscape, for example absence of man-made structures, active management or people/facilities can contribute to the perception of naturalness, wildness or tranquility.

Evidence of past inhabitants, i.e. standing stones can contribute to a feeling of timelessness. All of these qualities can be sensitive to wind turbines' clearly man made appearance, size, scale and sound.

Some key lessons

- Plan led approach - location, location, location
- Guidance – provide certainty, clarity & consistency
- Early engagement – takes time
- Robust & established assessment processes
- Good design makes a difference
- Key risks are during construction
- Good progress towards targets, choice in system


Spurningum ?