1 Philosophy and general overview

The visual and sensory aspect is a process of mapping what is perceived through our senses, primarily visually, from the physical attributes of landform and land cover to their visible patterns of distribution and their consistent relationships in particular areas. The senses of hearing, smell and touch are also considered as part of the perceived characteristics of the landscape. Partly based on aesthetic and perceptual criteria, this aspect uses many descriptive terms that are similar to the Landscape Character Approach [used in England and Scotland] to ensure familiarity and consistency of application. Important terms are defined in the glossary at the end of the chapter.

Since this aspect may include any visible and/or perceived element within the landscape, it inevitably covers elements and features that are also covered by other Aspects. Thus, for example, the Visual and Sensory Aspect is likely to include references to both the form and type of vegetation within an area which the Biodiversity Aspect will also cover in its own way. The important difference is that the Visual and Sensory Aspect is concerned with the effect the vegetation has on how the area is perceived.

Most people can make subjective comment on what a landscape looks and feels like. However in the *LANDMAP* Visual and Sensory Aspect, greater objectivity is achieved by using consistent definitions, method of assessment and wording for each area. This makes the assessment more robust and justifiable by the Aspect Specialist who will be an expert in this field.

1.1 Overview of procedure

The process for carrying out the Visual and Sensory aspect is similar to the other evaluated aspects. Initially the study area is classified into different landscape types. These are mapped and data capture forms filled out for each. As with all landscape assessments, this is likely to be an iterative process. Desk study derived Aspect Areas will be refined by field assessment which will form the basis for data recording. When the assessment is completed, a technical report is prepared to explain judgements and any deviations from the method. A QA procedure is then carried out on the assessment to ensure consistency and quality control.

The compilation of the *LANDMAP* Visual & Sensory Aspect therefore involves *five* main processes:

Step 1: Classifying and mapping Visual & Sensory Aspect Areas

Step 2: Aspect Areas Data Capture - Overview and Description

Step 3: Aspect Areas Data Capture - Evaluation and Recommendations
Tolerance to Change (optional)

Step 4: Technical reporting

Step 5: Quality Assurance

Visual & Sensory Aspect Specialists are responsible for Steps 1-4 in this process. However, to achieve nationally consistent standards, each *LANDMAP* data-set is reviewed by CCW's Quality Assurance Panel before it can be approved as verified *LANDMAP Information*. The QAP is therefore responsible for Step 5 in the process but can also provide guidance on the undertaking of Steps 1-4.

2 Classification and Mapping

Visual & Sensory Aspect Areas are defined by applying a *LANDMAP* Visual & Sensory classification. Applying the classification relies on good information sources and so the gathering of relevant data is an essential first step in the *LANDMAP* process.

2.1 Sources of information

The Visual & Sensory Aspect is less reliant on published data and more reliant on field appraisal than other aspects. The basic information that is likely to be used is as follows:

- 1:25,000 and 1:10,000 OS maps,
- Aerial Photographs at 1:10,000 preferably orthographically corrected and available as continuous digital coverage for a study area [not as individual tiles]
- Unitary Development Plans
- Previous studies and landscape related documentation e.g. landscape assessments and countryside strategies.

While the assessment should essentially be derived from primary data, it is nevertheless useful for the assessor to understand the background of previous assessments. Other information such as geological maps may be helpful in developing an understanding of the broad structure of the landscape although this information will be explored in considerably more detail in the Geological Landscapes Aspect.

It is important to be as comprehensive as possible and to compile a record of any consultations and data sources used as part of the Quality Assurance procedure. This is requested as a standard component of *LANDMAP* Technical Reports.

2.2 Applying the Visual & Sensory Landscape classification

The Visual & Sensory Aspect is organised according to a hierarchical classification system. This typology aims to classify the landscape into areas of distinct Visual & Sensory character, and is based on a hierarchy of four levels. The levels are broadly based on the following criteria:

Level 1	Level 2	Level 3	Level 4
Broad landform and land cover	Landform	Land cover	Detail - location / scale / exposure / settlement

The classification will initially be carried out as a desk study exercise. It will be related to mapping of the study area and allocating a classification to each Aspect Area. Each Aspect Area will be mutually exclusive and jointly exhaustive. The classification will be refined by site appraisal and by discussions with the *LANDMAP* Manager should there be additions or deviations from the standard list. *LANDMAP* Aspect Areas must be identified to at least Level 3 with Level 4 Aspect Areas being desirable.

Because the Aspect Specialist's reasoning in reaching classification decisions, and the evidence leading to those decisions, may be required to be submitted to, or challenged at, a Public Inquiry, careful collation and storage by Aspect Specialists of all research information is required.

There follows a list of classes for the Visual & Sensory Aspect based on this typology. The *LANDMAP* Manager should approve any further sub-divisions at Level 4 to promote consistency with any future studies elsewhere.

2.3 Visual & Sensory hierarchical classification system

Level 1	Level 2	Level 3	Level 4 (suggested/indicative only)
Broad landform and land cover	**Landform**	**Land cover**	**Detail - location / scale / exposure / settlement**
Upland	Exposed upland/plateau	Barren/rocky upland	Mountain peaks
			Other barren upland
		Upland moorland	Upland moorland [heather]
			Upland moorland [other]
		Upland grazing	Fridd
			Grazed plateau
		Wooded upland & plateaux	Wooded upland
			Wooded plateau
		Mosaic upland & plateaux	Wooded mosaic upland
			Pasture mosaic upland
			Wooded mosaic plateau
			Pasture mosaic plateau
			Relic industrial mosaic upland

	Upland valleys	Open upland valleys	Open settled high valleys
			Open unsettled high valleys
		Open/wooded mosaic upland valleys	Open mosaic settled high valleys
			Wooded mosaic settled high valleys
			Open mosaic unsettled high valleys
			Wooded mosaic unsettled high valleys
			Relic industrial mosaic high valleys
		Wooded upland valleys	Wooded settled high valleys
			Wooded unsettled high valleys
	Hills, lower plateau & scarp slopes	Hillside & scarp slopes moorland	Hill & scarp moorland
		Hillside & scarp slopes grazing	Unenclosed hill & scarp grazing
			Enclosed hill & scarp pasture
		Wooded hillside & scarp slopes	Wooded hills
			Wooded scarp slopes
		Hillside & scarp slopes mosaic	Wooded mosaic hills
			Pasture mosaic hills
			Wooded mosaic scarp slopes
			Pasture mosaic scarp slopes
		Open hillside and scarp slopes	Open hill and scarp slopes
		Hill and lower plateau moorland	Hill and lower plateau moorland
		Hill and lower plateau grazing	Unenclosed Hill and lower plateau grazing
			Enclosed Hill and lower plateau grazing
		Wooded hill and lower plateau	Wooded Hill
			Wooded lower plateau
		Hill and lower plateau mosaic	Wooded Hill and lower plateau mosaic
			Pasture Hill and lower plateau mosaic
		Open hill and lower plateau	Open hill and lower plateau
Lowland	Lowland valleys	Open lowland valleys	Open low valleys
		Mosaic lowland valleys	Wooded mosaic low valleys
			Farmland mosaic low valleys
			Relic industrial mosaic
		Wooded lowland valleys	Wooded low valleys

	Rolling lowland	Open rolling lowland	Rolling farmland
		Mosaic rolling lowland	Rolling farmland mosaic
			Rolling farmland mosaic
			Relic industrial mosaic
			Rolling wooded estate farmland or parkland
		Wooded rolling lowland	Rolling woodland
	Flat lowland / levels	Flat open lowland farmland	Flat farmland – wide valley floor
			Flat farmland - levels
		Flat wooded lowland	Flat wooded lowland
		Flat lowland mosaic	Flat lowland wooded mosaic
			Flat lowland farmland mosaic
			Relic industrial mosaic
			Flat lowland estate farmland or parkland
		Lowland wetland	Mudflats
			Inland marsh
	Coastal	Intertidal	Saline marsh
			Mud or silt/ flats
			Sandy
			Shingle/loose rock
			Rock platform
		Dunes and dune slack	Dunes and dune slack
		Cliffs & cliff tops	Cliffs and cliff tops
		Other coastal wild land	Low cliffs and rocks
			Other coastal wild land
Development	Built land	Village	Linear
			Nucleated with focus [green or square]
			Nucleated without focus
		Dispersed settlement	Dispersed settlement
		Urban	Urban core –retail/commercial dominated
			Urban edge- residential dominated
			Commercial estates
			Institutional
			Transport related

	Developed unbuilt land	Amenity land	Golf courses
			Playing fields
			Formal civic parks
		Informal open space	Urban river corridor
			Urban woodland
		Excavation	Quarries
			Opencast
			Landfill
		Derelict / waste ground	Derelict / waste ground
			Tips and/or deep mines
			Quarries
		Road corridor	Road
			Land associated with road
Water	Coastal waters	Sea	Sea
		Estuary	Estuary
	Inland water [including associated edge]	River	River
		Lake	Lake
		Drowned ria	Drowned ria

The classification system should be adhered to, but local landscape differences may necessitate that the actual classes selected may be different in each Local *LANDMAP* Area. Any required deviations or if any problems with using it arise, these must be resolved in discussion with the Historic Landscape representative on the *LANDMAP* Quality Assurance Panel and reported to the *LANDMAP* Wales Manager. Any agreed changes should also be reported as part of the standard contents of the Technical Report.

2.4 Visual & Sensory definition of classes

For the purposes of transparency and compatibility, it is necessary that the Aspect Specialist provide definitions of each of these classes. There follows a list of suggested definitions of these classes to Level 3 of the hierarchical classification system shown in the table above. The Aspect Specialist should use the definitions unless there is particular local circumstance that necessitates an alternative definition.

Level 4 classifications have not been defined as these are indicative and are for guidance only. As this level is carried out comprehensively across Wales the classification will be refined and definitions compiled.

The terms and measurements suggested below are not intended to be treated exactly, rather to act as guidance for estimates of area size, slope or density.

Level 1	Level 2	Level 3
Upland Areas predominantly, but not exclusively, rising to over 300m (excluding *Development* and *Water* classes); also includes the lower slopes of higher areas rising from around 150m. 150m should not be used as a hard and fast differentiation between *Upland* and *Lowland*, it should be treated as broad distinction. The upland qualities of an area should take precedence over the altitude of an area. *Upland* areas may extend below 150m in some instances where they are more widespread above this altitude. See also the definition of level 2 class *Hills & scarp slopes* below which can be seen in special cases as the intermediate class between *Upland* and *Lowland.* Further guidance might be gained from looking at land use patterns in the area. *Upland* land use tends to be marginal grazing, with more diverse land use in *Lowland* areas.	**Exposed upland/plateau** ***Upland*** areas that are predominantly exposed; *exposed* does not necessarily equate to a lack of tree cover; *exposed* relates more to landform than land cover in this instance, in that it excludes upland areas which are sheltered by landform such as valleys.	**Barren/rocky upland** ***Exposed upland & plateau*** areas which are significantly (>25%) uncovered rock & scree **Upland moorland** ***Exposed upland & plateau*** areas that are predominantly moorland (>50%) **Upland grazing** ***Exposed upland & plateau*** areas that are predominantly grazed grassland (>50%) **Wooded upland & plateaux** ***Exposed upland & plateau*** areas that are predominantly with significant woodland (>20% tree cover) **Mosaic upland & plateaux** ***Exposed upland & plateau*** areas which display a patchwork of small (<10ha) pockets of woodland (20-50% density)
(Upland)	**Upland valleys** ***Upland*** areas that are predominantly (>50%) valleyed (with a valley floor to ridge height >50m approx.)	**Open upland valleys** ***High valley*** areas that are predominantly unwooded (<20%) **Open/wooded mosaic upland valleys** ***High valley*** areas that are significantly wooded (>20%) **Wooded upland valleys** ***High valley*** areas that are significantly wooded (>20%)

	Hills, lower plateau & scarp slopes *Upland* areas which are predominantly (<50%) hills without well defined valleys and scarp slopes. Hills and scarp slopes might be defined as the intermediate landform between *Lowland* and *Upland*, but this is extremely difficult to define accurately. So, for the purposes of *LANDMAP, Hills & scarp slopes* forms its own class under the level 1 *Upland* class. It is defined by the presence of lower landform than other *Upland* classes and will rarely extend much lower than about 100m or much higher than about 300m. However, it is more usefully defined as being the type of landform that falls comfortably into neither the *Upland* or *Lowland* classes. It will often form an intermediate band between the two. It may also be defined by having more *Upland*-type land use patterns, yet at a relatively low altitude. It can either be a relatively level landform such as a plateau or gentle hills at a lower level than the exposed upland plateaux or form the sloping sides of hills or scarps. A *scarp slope* is defined as a slope linking lowland with a plateau, and having no *significant or equivalent facing* slope, although it may form one side of a valley.	**Hillside & scarp slopes moorland** ***Hills & scarp slope*** that are significantly sloped (>10°slope), insignificantly wooded (<20%), and predominantly (<50%) hill tops covered with open moorland **Hillside & scarp slopes grazing** ***Hills & scarp slope*** that are significantly sloped (>10°slope), insignificantly wooded (<20%), and which is predominantly grazed grassland (>50%) **Wooded hillside & scarp slopes** ***Hills & scarp slope*** areas that are significantly sloped (>10°slope) and predominantly wooded (>50%) **Hillside & scarp slopes mosaic** ***Hills & scarp slope*** areas which are significantly sloped (>10°slope) and display a patchwork of woodland (20-50% density) **Open hillside and scarp slopes** ***Hills & scarp slope*** areas which are significantly sloped (>10°slope) and display a patchwork of woodland (20-50% density) **Hill and lower plateau moorland** ***Hills & lower plateau*** insignificantly wooded (<20%), and predominantly (<50%) hill tops covered with open moorland

(Upland)	**(Hills, lower plateau & scarp slopes)**	**Hill and lower plateau grazing** ***Hills &lower plateau*** insignificantly wooded (<20%), and which is predominantly grazed grassland (>50%) **Wooded hill and lower plateau** ***Hills &lower plateau*** areas that are insignificantly sloped (<10°slope) and predominantly wooded (>50%) **Hill and lower plateau mosaic** ***Hills &lower plateau*** areas which are insignificantly sloped (<10°slope) and display a patchwork of woodland (20-50% density) **Open hill and lower plateau** ***Hills &lower plateau*** areas which are insignificantly sloped (<10°slope) and display a patchwork of woodland (20-50% density)
Lowland Areas predominantly below 100m (excluding *Development* and *Water* classes); also includes the higher slopes of lower areas rising to around 150m. 150m should not be used as a hard and fast differentiation between *Upland* and *Lowland*; it should be treated as broad distinction. The lowland qualities of an area should take precedence over the altitude of an area. *Lowland* areas may extend above 150m in some instances. See also the definition of level 2 class *Hills & scarp slopes* above which can be seen in special cases as the intermediate class between *Upland* and *Lowland.* Further guidance might be gained from looking at land use patterns in the area. *Upland* land use tends to be marginal grazing, with more diverse land use in *Lowland* areas.	**Lowland valleys** ***Lowland*** areas that are predominantly (<50%) valleyed (floor to ridge height >50m.)	**Open lowland valleys** ***Lowland valley*** areas that are insignificantly wooded (<20%) with a lack of hedgerow trees. **Mosaic lowland valleys** ***Lowland valley*** areas which display a patchwork of small woodland (20-50% density) amongst farmland, perhaps also with a high number of hedgerow trees. **Wooded lowland valleys** ***Lowland valley*** areas that are predominantly wooded (>50%).

(Lowland)	**Rolling lowland** ***Lowland*** Areas which are predominantly, rhythmically, gently sloped (3-10° slope), although less so than ***Lowland valleys***. Rolling lowland generally differs from ***Hills & scarp slopes*** in that there rarely a significant change in land use.	**Open rolling lowland** ***Rolling lowland*** areas that are insignificantly wooded (<20%)with few individual or hedgerow trees. **Mosaic rolling lowland** ***Rolling lowland*** areas that display a patchwork of small or scattered woodland (20-50% density); may also have high presence of hedgerow trees. **Wooded rolling lowland** ***Rolling lowland*** areas that are predominantly wooded (>50%)
	Flat lowland / levels ***Lowland*** areas that are predominantly flat(<3° slope); mostly coastal and riverine levels, but also broad vales and valley bottoms.	**Flat open lowland farmland** ***Flat lowland/levels*** areas that are insignificantly wooded (<20%) farmland **Flat wooded lowland** ***Flat lowland/levels*** areas that are predominantly wooded (>50%) **Flat lowland mosaic** ***Flat lowland/levels*** areas which display a patchwork of woodland (20-50% density) **Lowland wetland** ***Flat lowland/levels*** areas that are predominantly wetland (>50%)
	Coastal ***Lowland*** Areas absolutely associated with the coast (n.b. excludes *open water* and *Flat lowland/levels*)	**Intertidal** ***Coastal*** areas which are found between low and high water lines on OS maps and their associated elements, such as beaches, mud and rocks. Note that admiralty charts are more accurate and would be used in Seascape assessments but this would not be expected for *LANDMAP* studies. **Dunes and dune slack** ***Coastal*** areas which face open sea and are predominantly dunes or dune slacks. **Cliffs & cliff tops** ***Coastal*** areas which are predominantly steep (>70° slope) rocky or sandy cliffs (>10m), also includes associated cliff-top rough grazing, scrub, or woodland

(Lowland)	**(Coastal)**	**Other coastal wild land** ***Coastal*** areas which are predominantly low rocky or sandy cliffs (<10m), also includes associated rough grazing, scrub, or woodland or rough or wild land not included in the categories above.
Development Predominantly built or developed areas and open areas primarily, visually associated with these (>10Ha). Over-rides other classes, so a coastal town will be *Development* and not *Coastal*.	**Built land** ***Development*** areas which are predominantly (>50%) covered in manmade structures or hard-standing	**Village** ***Built land*** areas that predominantly consists of rural communities and their associated elements, e.g. shops, small-scale workplaces, churches, schools, domestic gardens, roads etc. The types of villages will be linear, nucleated around a focus such as village green or square or with no discernible structure. An upper size limit being defined by the presence of only a handful of commercial properties e.g. <5. A lower size limit being the presence of no commercial properties, church or school. **Dispersed settlement** ***Built land*** areas that predominantly consist of rural communities which are spread out over a wide area such as squatter's settlements. These may or may not include shops, small scale work places, churches or schools. A lower size limit being 15 houses. **Urban** ***Built land*** areas that predominantly consists of larger, urban communities and their associated elements, e.g. extensive residential estates and streets, commercial, large-scale workplaces, churches, schools, domestic gardens, roads etc. A lower size limit being defined by the presence of only a handful of commercial properties e.g. >5.
	Developed unbuilt land ***Development*** areas which is not *Built land*	**Amenity land** ***Other developed land*** which is open space associated with the service of *Built & developed* Areas (>10Ha), such as formal parks, golf courses and playing fields

(Development)	**(Developed unbuilt land)**	**Informal open space** ***Other developed land*** which shows overwhelming visual evidence of use as unplanned open space (>100Ha) within a developed or ***built land*** context, such as urban river corridors, urban woodland, etc. **Excavation** ***Other developed land*** which shows overwhelming visual evidence of severe surface disruption (>100Ha), such as mines & landfill **Derelict / waste ground** ***Other developed land*** which shows overwhelming visual evidence of neglect or disuse (>100Ha), such as disused industrial sites, mines and quarries **Road corridor** ***Other developed land*** which is a major road corridor, significant in the landscape, usually a dual carriageway and larger with associated land managed with the road such as embankments and cuttings.
Water Areas of still water (>10Ha) including open sea, or flowing water (> 20m across)	**Coastal waters** Predominantly saltwater areas covering the sea and river mouths.	**Sea** ***Open Water*** areas that are predominantly open sea beyond the OS map low water line. **Estuary** ***Open water*** areas, beyond the OS map low water line, that are predominantly river mouths. They might be defined as running from open sea, such as a sand bar at the river mouth, up the river. The cut-off with the latter being the lowest traditional bridge or comparable crossing point.
	Inland water [including associated edge] Large expanses of generally freshwater with their edges/riparian strips, consisting of the following classes	**River** ***Inland Water*** areas that is a large river (perhaps >20m across) **Lake** ***Inland Water*** areas that is predominantly a large lake or reservoir (>50ha) **Drowned ria** ***Inland Water*** areas that is predominantly a large inland extension to an estuary with tidal characteristics including mud flats and edges. (>50ha)

2.5 Mapping of Aspect Areas

Visual & Sensory Aspect Specialists are required to prepare maps showing the area and extent of each Aspect Area. ~~The most common method of doing so, h~~Having reached a judgement on the Visual & Sensory qualities of an Aspect Area the outline boundary ~~(polygon) ~~of the Aspect Area is defined either on a paper copy or directly as a polygon in GIS.

Any paper-based information is then translated into a digital format so it can be managed within the GIS. While it is preferable that the Aspect Specialist should in-put the data, it may be that s/he does not possess the necessary equipment or skills to do so. In ~~many~~ these instances, the Aspect Specialist ~~Unitary Authority will undertake to~~ should arrange for the transfer of the Aspect Area polygons from paper to digital format within the GIS.
~~This should be established with the client Authority from the outset.~~

When identifying Aspect Areas by lines on maps, the Aspect S~~s~~pecialist must be certain of - and must record - the reasons (the justification) for selecting a particular area as these reasons must ~~will~~ be explicit ~~or reflected~~ in the Data Capture Forms ~~and in~~for the individual Aspect Area entries.

Mapping of areas is likely to be an iterative process. Generally, the best method of defining areas is as follows:

Desk Study:

- Study relevant information [see Information section]
- Define broad Level 1 Aspect Areas at a small scale [1:25,000 or 1:50,000].
- Subdivide areas into Level 2 Aspect Areas and subsequently into Level 3 and 4 as required, refining boundaries as necessary. Some boundaries will be clearly defined [eg moorland edge, coast etc] while others will be notional [eg subtle change in lowland agricultural landscapes].
- Define viewpoints to assess intrinsic qualities and boundaries of each Aspect Area. At least one, and preferably around three, viewpoints will be identified per Aspect Area [dependent on size and character.

Site Survey:

- Prepare standard site survey form which should be based on the data capture form to ensure consistency.
- Carry out site assessment of viewpoints, modifying locations if necessary to respond to site findings. Take photos from key and representative viewpoints.
- Fill in at least one survey form for each area and store for further reference. These should be made available to the client and LANDMAP management service for checking. Modify draft Aspect Area boundaries as required.

Finalising boundaries:

Finalise area boundaries after review, preferably with client body, Landscape Information Users Group and *LANDMAP* Team input to ensure accuracy and consistency.

3 Data Capture Form: Overview and Description Section

Visual And Sensory Data Capture Form

In summary, this structure has five sections that are shown in the table below:

Section of data capture form	Each Aspect Area requires...
Classification	A classification to an agreed level of detail.
Description	Responses to a set of descriptive questions that are particular to each Aspect.
Evaluation	An assessment of intrinsic value, condition and trend.
Recommendation	An assessment of existing management and subsequent recommendation of appropriate management.
Tolerance to Change (optional)	An assessment of the tolerance to certain pre-defined changes in the landscape.

The data capture forms will include information and judgements made on the basis of both desk study and site appraisal. Initially, the desk study will produce preliminary classification and mapping of the study area [see Mapping section]. The site appraisal will then be carried out which will provide a significant amount of information for the data capture form. It should be carried out in a structured and logical way using standard site assessment forms. It is highly recommended that these forms use the same terms as the data capture forms. This will ensure a link between site information and the final digital product and will give confidence and clarity to any assessment.

While the Aspect Specialist is encouraged to record as much information about each area as possible, it may be that they have insufficient information to distinguish one Aspect Area from another with the same classification. For instance, the Visual & Sensory Aspect Specialist classifies two Aspect Areas as ***Open Lowland Valley***, yet has insufficient site information to be able to distinguish between these two places. Rather than fill in two data capture form identically, it is possible to fill in a single data capture form for two or more Aspect Areas. However if the Aspect Specialist is aware of *any* difference in the required information for these two Areas then a separate data capture form should be filled in for each Area and the appropriate information entered. The general rule is to differentiate between Aspect Areas where possible, but *only* where possible.

The information should be gathered from the point of view of an observer *within* the Aspect Area. It should be noted that the data capture form covers both visual and other sensory information. The Aspect Specialists perception of characteristic noise and smell should be recorded on the form.

3.1.1 Visual And Sensory Data Capture Form

In addition, the form provides background and ancillary information

Section of data capture form	Each Aspect Area requires...
Supplementary information	**Assessors and assessment dates N**oted every time the form is substantially updated **Aspect Area boundary information** Clarification of the level information was site surveyed should be noted to help define accuracy. The accuracy of the boundary should also be specified and a justification of each boundary set out. This could include reasons such as break of slope, change in land cover or enclosure patterns, mountain fence and local authority boundary. These are not necessarily mutually exclusive. Care should be taken with the wording as this information may be used for secondary products such as designations. **Information sources and bibliography** Any literature that pertinent to this Aspect Area should be noted, whether a landscape study or literature. References that relate to the whole study area should be noted once in the technical annex to avoid repetition. **More detailed studies** If more detailed studies within the Aspect Area have been carried out, such as environmental assessments, village or area studies or design guidance then this should be noted for further reference. **Comments by Assessor This** is for the Aspect Specialist to make notes about the *process of description* undertaken in this section of the data capture form. They may wish to explain as succinctly as possible the basis for a difficult decision, or perhaps where they felt that the answer they might have given was not available to them.

3.2 Visual & Sensory Data Capture Form

Insert screen capture of dcf here

3.3 Visual & Sensory definition of terms on Data Capture Form: Description

In this section the terms used in the Visual & Sensory data capture form are defined. This is intended to aid the Aspect Specialist when filling in the data capture form. It is possible that the terms used (e.g. “levels”; “valleys”; “plateau”; etc.) for a particular theme (e.g. “dominant pattern”; “dominant scale”; etc.) are unsuitable for certain study areas. If so, the Aspect Specialist may wish, in consultation with the *LANDMAP* Manager, to propose a change to the available terms for any data capture form. Those given below are suggested for a generic Welsh landscape. The terms will be explained in the order in which they appear in the Visual & Sensory data capture form.

Summary description	**This is for the Aspect Specialist to summarise succinctly the most important qualities of the Aspect Area. This will be a summary of the fuller description below.**

PHYSICAL FORM AND ELEMENTS	
...Topographic form?	**The dominant, definitive physiological character of the Area. The physical form should be considered stripped of land cover.**
Levels	Low-lying level ground (<10m from low to highpoint), includes low dunes, mudflats, flat farmland etc
Rolling/ undulating	Gently uneven (10-100m from low to highpoint), low lying ground - usually demonstrating rhythmic pattern
Hills/valleys	Steeply uneven (>100m from low to highpoint) high ground with low valleys
High hills/ mountains	High ground with distinct summits and peaks
Plateau	Raised, level ground usually defined by a perimeter of sloping ground
Disturbed	Land that has been predominantly altered so as to significantly alter the natural land form, such as quarries and landfill sites
... Land cover pattern?	**The dominant, definitive land cover character of the Area. Does not relate to historical pattern**
Open land	All broad-expanses of continuously open (unenclosed and treeless) land, such as marsh, bog, tidal mudflats, moorlands, grasslands
Development	All developed land, includes built form, significant hard standing, and associated open space such as amenity land, playing fields, etc.
Woodland	All significant wooded ground (>70% tree cover)
Field pattern/mosaic	All land exhibiting a recognisable agricultural field system, with significant boundaries and/or tree cover
Water	All significant water bodies (>70% water), such as estuaries, large lakes, or lake complexes
Mixture	All areas characterised by a complex relationship that falls into none of the above categories
...Settlement pattern?	**Refers to the predominant pattern of human development as it exists in the Area. Does not refer to historical settlement pattern**
Urban	Substantial, large-scale development associated with a town or city; includes urban fringe development which may be geographically detached from the main body of the host city/town
Village	Single, small-scale development associated with traditional rural community centres; likely to exhibit other community features such as church, school, shops, market square, village green
Clustered	Multiple. Small-scale developments gathered around individual community activities, such as hamlets or large farms with many residences and associated buildings, but also may be late 20th c. Commercial development around major road junctions (excludes *linear*)
Scattered rural/farm	Individual, dispersed rural settlements such as isolated small farms and residences
Linear	Individual, clustered developments typically following existing elements such as main roads; archetypally likely to be commercial or residential development on urban arterial transport corridors
None	No significant settlement currently in use
...Boundary type?	**The dominant, definitive character of the current boundaries in the Area. Does not mean historical boundary type.**
Managed hedge	Managed hedgerows only, i.e. Those that are well-maintained to preserve a hedgerow form
Hedge with trees	Managed hedgerows with occasional trees
Overgrown hedges	Unmanaged hedgerows with or without trees

Clawdd / hedgebanks	Presence of hedgebanks or clawdd as dominant base to hedges above.
Stone wall	Stone boundary walls
Fences	All wire or wooded fencing free of hedgerow
Slate fences	Slate fences
Fences with trees	All wire or wooded fencing free of hedgerow but with standard trees
Mixture	Areas exhibiting no single dominant boundary type, but a variety of boundary types
None	All areas with no significant boundaries (not the same as no *dominant* boundary type - see *mixture*)

AESTHETIC FACTORS	
...Scale?	**Refers to relationship of key elements or spaces of the Aspect Area, such as woodland or open space, within the whole landscape. Does not refer merely to the size of the Aspect Area. May be that a small Aspect Area is of a *vast* scale as it is a small part of a continuous whole. Should not be confused with *enclosure* (see below).**
Intimate	Elements and spaces of a predominantly personal scale, such as private gardens and houses
Small	Elements and spaces of a community scale, such as hamlets, woodland clearings, small field or woodland units
Medium	Elements and spaces which are of a moderate scale, in that they are neither extensive nor intensive
Large	Elements and spaces which extend to cause the observer to feel small, such as wide valleys or woodlands
Vast	Elements and spaces which are of a regional continuity, such as mountain ranges, extensive forests, plains and large vales, etc.
...Sense of enclosure?	**Refers to predominant spatial relationship of observer amongst key elements and spaces - including the horizon, landform and land cover. Relates to likely perception of an observer in the landscape. Should consider the *likely position* of most observers within the Aspect Area.**
Confined	Presents the likely observer with close spaces such as in thick woodland, narrow corridors or gorges; likely to see relatively little sky
Enclosed	Presents the likely observer with short distance views to a high horizon, such as from most valley bottoms
Open	Presents the likely observer with predominantly eye level horizons, such as lowlands and cliff-less coastal areas
Exposed	Presents the likely observer with far-distance horizons, such as on hill-tops, etc
...Diversity?	**Refers to the diversity of visual elements in the Aspect Area.**
Uniform	Unvarying in texture, form, colour, etc. With a single recognisable pattern of visual elements
Simple	Little variation in texture, form, colour, etc. With only a narrow range of visual elements
Diverse	Widespread variation in texture, form, colour, etc. With a broad range of visual elements
Complex	Complete variation in texture, form, colour, etc. With little or no recognisable pattern of visual elements
...Texture?	**Refers to the texture of visual elements in the Aspect Area. Texture can be determined by land cover such as scale and extent of tree cover, natural vegetation, presence of rock exposures, crops or size of fields.**
Smooth	Consistent cover with smooth appearance e.g. grassland without enclosure.
Medium	Moderately textured land cover.

Coarse	Land cover with coarse texture due to intrinsic nature of cover e.g. coniferous forestry or variation in land cover such as a mosaic of woodland/grassland
Rock exposure	Land cover with significant rock exposures
...Lines?	**Refers to the dominant arrangement of lines in the Aspect Area.**
Straight	Predominantly straight lines such as in a rectilinear field system e.g. levels.
Angular	Predominantly straight lines at a variety of angles such as in field system or in a rugged landscape.
Curved	Predominantly curved lines possibly dominated by gentle landform.
Sinuous	Predominantly sinuous lines possibly defined by fluvial patterns.
...Colour and contrast?	**The predominant nature of the colours and contrast between colours or shades within the Area [not just notable colours]. Includes all elements in the landscape such as signage, building materials, vegetation. Should be assessed according to its most common state (if there are particularly relevant alternative states then a note should be made under *Notes on description*). A judgement on both colour and contrast is possible.**
Muted	A predominance of neutral colours or monotones, such as found on hill sides or woodland for most of the year
Colourful	A predominance of more bold colours and tones, such as building materials in rural locations
Garish	A predominance of bold colours with little recognisable pattern, such as commercial signage amid bold natural colours
Moderate contrasts	Moderate contrasts between vegetation types such as bracken, heather and pastures.
Strong contrasts	A predominance of bold contrasts between just a few strong colours or tones, such as dark buildings materials against a pale background
...Balance?	**Refers to the balance and interaction of different elements and characteristics of the Area.**
Harmonious	All the characteristics/elements visually contribute to a harmonious composition
Balanced	Most characteristics/elements visually contribute to a balanced composition or unity
Discordant	Some characteristics/elements visually disrupt and detract from a balanced composition or unity
Chaotic	Characteristics/elements visually compete and disrupt each other to create a chaotic composition.
...Unity?	**Refers to the repetition of similar elements or qualities, which give an area a sense of unity. For example the repetition of materials/detailing such as stonewalls.**
Unity	An area where there is strong sense of unity
Neutral	An area where this is not a significant quality but where it is also not affected by disruptive elements.
Disunity	An area where there is significant disruption of sense of unity.
...Pattern?	**Refers to the predominant patterns discernible in the Area.**
Random	Characteristics/elements do not appear to have a purposeful relationship with each other
Organised	Characteristics/elements have a purposeful relationship with each other
Regular	Characteristics/elements are consistent and regular.
Formal	Characteristics/elements have a formal designed relationship with each other.

...Seasonal interest?	**Relates to the question above in that this is primarily an issue of colour, although texture might also be considered. This question relates to the presence of elements that might change colour or texture significantly or notably in any season. It requires assessment of significance or notability in that commonplace or unremarkable seasonal interest should not be considered.**
Summer	Demonstrates particularly notable seasonal interest in terms of changes of colour and/or texture in summer
Autumn	Demonstrates particularly notable seasonal interest in terms of changes of colour and/or texture in autumn
Winter	Demonstrates particularly notable seasonal interest in terms of changes of colour and/or texture in winter
Spring	Demonstrates particularly notable seasonal interest in terms of changes of colour and/or texture in spring
Mix	Demonstrates particularly notable seasonal interest in terms of changes of colour and/or texture in more than one season
None	Demonstrates no notable seasonal interest in terms of changes of colour and/or texture in any season

OTHER FACTORS	
...Level of human access?	**The effects of human presence in the Area, especially human movement/traffic. May relate strongly to *tranquillity*.**
Constant	A constant stream of human movement for most of the day, such as a town centre, motorway or busy main road
Frequent	A frequent, but interrupted stream of human movement for most of the day, such as busy railway corridor or rural main road
Infrequent	An infrequent flow of human movement for most of the day, such as quiet road or rail corridor, canal, park or footpath, small village or hamlet
Occasional	An occasional presence of human activity of only a few times a week, such as most valley-bottom agricultural areas, or a very quiet rural back road or track
Rare	Only the lightest of human traffic, such as remote hill/mountain tops or unvisited woodland
...Nighttime light pollution?	**Refers to the estimated amount of light pollution in the Area based on extent of street lighting and other light sources. This is not a definitive judgement but may identify a concern of individual or cumulative effects of lighting.**
Negligible	Very few sources of light such as uninhabited or very sparsely settled areas
Slight	Few sources of light such as sparsely settled areas such as scattered farms
Moderate	Some sources of light such as villages and clustered settlements.
Substantial	Many sources of light such as urban areas or lit roads or installations.
...Use of construction materials?	**Refers to the Visual & Sensory appropriateness of the <u>most recent use</u> of construction materials, such as roofing, walls (including field boundaries where relevant), paving, agricultural development, etc. Should be based on appropriateness in relation to other local materials and to the creation of a sense of place or definitive *local* character.**
Appropriate	Materials used are overwhelmingly in keeping with or more appropriate than previous good examples of local materials which define visual character in the study area
Generally appropriate	Materials used are generally in keeping with or more appropriate than previous good examples of local materials which define visual character in the study area

Generally inappropriate	Materials used are generally in conflict with or less appropriate than previous good examples of local materials which define visual character in the study area
Inappropriate	Materials used are overwhelmingly in conflict with or less appropriate than previous good examples of local materials which define visual character in the study area
There are attractive views...	**Refers to the availability of attractive views from the *likely position or positions of most observers* within the Aspect Area. *Attractive* here is defined as being of a particularly high scenic quality; the judgement should relate to the availability of the views to observers, i.e. A borderline view is to be considered more important if it is viewed by many observers.**
...Within	The views *within* the area from other areas meet the criteria set above. This option may be superseded by any of the following options.
...Into	The views *into* the area from other areas meet the criteria set above
...Out	The views *out from* the area to other areas meet the criteria set above
...Both in & out	Both the views *into* & *within* and those *out from* the area meet the criteria set above
...Neither in or out	Neither the views *into* & *within* nor those *out from* the area meet the criteria set above
There are detractive views...	**Refers to the availability of detractive views from the *likely position* of most observers within the Aspect Area. Detractive here is defined as being of a particularly low or degraded scenic quality; the judgement should relate to the availability of the views to observers, i.e. A borderline view is to be considered more important if it is viewed by many observers.**
...Within	The views *within* the area from other areas meet the criteria set above
...Into	The views *into* the area from other areas meet the criteria set above
...Out	The views *out from* the area to other areas meet the criteria set above
...Both in & out	Both the views *into* & *within* and those *out from* the area meet the criteria set above
...Neither in nor out	Neither the views *into* & *within* nor those *out from* the area meet the criteria set above
Perceptual and other Sensory Qualities	**Refers to other sensory and perceived qualities of the Aspect Area. These can be more subjective than the qualities described above but can nevertheless be helpful in defining what is important in an aspect area.**
Tranquil	Is the area quiet giving a sense of tranquillity and peace? [This is a judgement on site and is not derived from a tranquil area map.]
Noisy	Is the area noisy and affected by, for instance, busy roads or low flying aircraft?
Sheltered	Is the area particularly sheltered?
Exposed	Is the area particularly exposed?
Safe	Do you feel particularly safe in this area?
Threatening	Do you feel threatened in this area?
Remote	Is the area perceived as remote?
Settled	Is the area well settled and domestic in character?
Wild	Is the area perceived as wild?
Spiritual	Does the area stimulate a spiritual response?
Smell	Is there a particularly distinctive smell in the area?

Other	Tick if there are other significant qualities.
...Give details:	Give details of the significant qualities giving reasons for your responses.
What is the sense of place/local distinctiveness?	**Refers to the overall ability of the place to convey a character that is recognisable or distinct at a local level. This will be based on the arrangement and relationship of particular elements or qualities discussed above. It may not be necessary for that *sense of place/local distinctiveness* to be based on a positive aesthetic; for instance, a concrete factory in an idyllic valley may have a stronger sense of place than the other idyllic valleys nearby. The judgement should be based on the most local context first. However, the sense of place may work at different scales- from regional [e.g. the Valleys] to very local. The former can provide a context for the latter. Remember, this is a Visual & Sensory judgement only. If the Aspect Specialist is aware of, say, the contribution of a place name or myth to local distinctiveness then the Cultural Aspect Specialist should be informed. The text explanation of sense of place may need to refer to the (optional) illustrations and diagrams to clearly communicate what makes one area distinct from the next.**
Strong	Exhibits distinctive characteristics that are unique or specific to the study area
Moderate	Exhibits common but distinctive characteristics which may be repeated throughout the locality
Weak	Exhibits few distinctive characteristics which contribute to a 'sense of place'
None	Exhibits no distinctive characteristics
...Give details:	Give details of the characteristics. Do not describe the basis for your judgement, only the characteristics which you judged to be contributing to the local distinctiveness/sense of place.
Does the area have a special relationship with another Aspect Area ?	**Give details of where an Aspect Area has a particular relationship with another area- for instance a coastal plain with backcloth of hills or a floodplain with valley sides. The areas do not necessarily have to be adjacent.**
Full Description	**This is for the Aspect Specialist to bring together a description of the most important qualities of the Aspect Area. The words will be carefully chosen as they may form the basis for secondary products such as landscape assessments and designations. Particular attention should be given to the qualities that can be managed or changed.**
Existing management	Define the appropriateness of management.
Existing management remarks	Explain the management that is appropriate or inappropriate above.

Illustrations [optional]	Illustrations are very helpful to fully illustrate what is important in the landscape in terms of the Visual and Sensory Aspect. These should cover the following: • Photographs of the broad character and important elements of an Aspect Area which should be conserved or changed. • Simple diagrams of the most important elements or qualities within the Aspect Area which give it its character and which should be conserved. • Aerial photographs either oblique or orthographically corrected, preferably with the boundary of the Aspect Area shown. The diagrams can be useful in informing secondary products including landscape strategy and design guidance. They may not be able to be resourced in a study and therefore are optional. They should be added in due course if possible.

4 Data Capture Form: Evaluation and Recommendation Section

After the Aspect Specialist has filled in the Description section of the data capture form, the evaluation should be carried out.

The Aspect Specialist should aim to establish an evaluation of intrinsic value based on a professional understanding of the Visual & Sensory character of the landscape.

Aspect Specialists are provided with pre-defined assessment criteria in the form of an evaluation matrix. The matrix is completed within the data capture form for each Aspect Area, after collecting all information on which the evaluation is to be based. The Aspect Specialist should evaluate each Aspect Area according to each of the criteria below and should summarise with an overall evaluation and justification. The summary will need to be carefully worded as it may be used for secondary products such as designation or in planning examinations and decisions.

4.1 Visual & Sensory Evaluation Matrix

Evaluation Criteria	**Unknown**	**Low**	**Moderate**	**High**	**Outstanding**
Scenic Quality					
Integrity					
Character					
Rarity					
Overall evaluation =					
Justification of overall evaluation:					

4.2 Visual & Sensory definition of evaluation criteria

Criteria	Definition
Scenic quality	The area will have accessibly-viewed scenes which are of a picturesque quality, demonstrating aesthetically-pleasing elements in composition
Integrity	The area should be generally unspoilt by large-scale, visually intrusive or other inharmonious development
Character	The area should have a distinctive and common character including topographic and visual unity and a clear sense of place
Rarity	The area should exhibit features or qualities that are both rare/representative and valuable for any other Visual & Sensory criteria

For each, the importance of the qualities within the Aspect Area are scored on the following scale:

Outstanding: Of international or national importance to the Aspect
High: Of regional or county importance to the Aspect
Moderate: Of local importance to the Aspect
Low: Of little or no importance to the Aspect
Unknown: Insufficient information exists to evaluate this Area

Condition:

The condition of the landscape will be closely tied to management and the extent of care or neglect apparent, particularly in agricultural landscapes. Sometimes neglect can be positive in allowing natural regeneration.

Trend:

Trend will be difficult to judge on first assessment of an area and may rely on local knowledge. The assessor will have to make a judgement as whether it is possible to fill this evaluation in. Subsequent assessments should make a judgement in order that change in the landscape can be assessed. An explanation will be helpful to explain the judgement.

4.3 Recommendations

The recommendations should flow logically from the description and evaluation of the Aspect Area. In the Visual and Sensory aspect those qualities and elements that should be conserved, enhanced or changed need to be defined as a prelude to the principal management recommendation and guidelines.

5 Data Capture Form: Tolerance to Change

This optional information can also be included in data capture forms if required by a local authority. This subject area is under review. It is likely to be defined by the following:

- The intrinsic capacity of the landscape to absorb development through characteristics such as scale, topography and presence of vertical elements.
- The sensitivity of the landscape derived from its perceived value or the presence of sensitive viewpoints.
- The magnitude of the effect of development derived from its scale and extent.

These need to be explored further to define a robust method.

6 Technical Report

The Aspect Specialist should submit a Technical Report for the Visual & Sensory Evaluated Aspect so that their justification and explanation of key decisions is made transparent.

Technical Reports will provide more detail and explanation than it is possible to include in the Data Capture Forms, and should be available in a form readily understandable to and accessible by planners and decision makers. The report should be submitted in digital format as well as hard copy.

6.1 Format and content of Technical Reports

- Executive Summary (one-two pages)

- Contents page

- Introduction: to include name, location, size etc. of the study area, dates when work was undertaken as well as the background to the study and any other general information

- Brief description of Aspect Specialist (and any other individuals) involved in the project: to include name of person(s) undertaking work, qualifications, previous *LANDMAP* work etc.

- Methodology: If the prescribed *LANDMAP* guidance was followed then the Aspect Specialist need not reproduce a lengthy methodological description. However, include and justify any additions to, or departures from, the prescribed hierarchical classification system. Generally, Aspect Specialists are advised to adhere to the prescribed hierarchical classification system, so any divergence from this should be clearly explained and justified
  Comment about the overall management of the project – especially where it is felt that there may have been a compromising effect on the quality of the Aspect data. Unusual circumstances, gaps in information and failures in the process should be particularly noted and explained.

- Overview: A summary description of the aspect for the whole study area bringing out the most important characteristics and key issues.

- Information Sources: A detailed account of the information sources used for audit trail purposes, to include:

  - Full details of consultations, including date, personnel involved and outcomes
  - Document the information sources used, including source and full details of data-sets used (these need to be clearly cross-referenced to the data entries for each Aspect Area)
  - Bibliography of literature used (these need to be clearly cross-referenced to the data entries for each Aspect Area)

- Justifications and judgements: Detailed justifications for any decisions and judgements made. Here, it is fundamental that Aspect Specialists justify any decision that they feel may require explanation at any time in the future. Also, in the interests of transparency, Aspect Specialists should be transparent in explaining any decision that they feel may cause even the slightest confusion. Areas where such texts are likely to be needed include:

  - Justification of approved additions to, or departures from, the prescribed hierarchical classification system, *although such deviations are generally not permitted*. Any problems found with using the classification should be logged.
  - Any essential elaboration on the justifications for overall management as well as explanation of potentially contentious decisions about individual Aspect Areas.
  - Any essential elaboration on the justifications of evaluations. Report both on the overall method for arriving at final evaluations for Aspect Areas in general, as well as explanation of potentially contentious decisions about individual Aspect Areas.

- Tolerance to Change assessments for each Aspect Area should they have been requested.

The above content is required for all *LANDMAP* Technical Reports. Aspect Specialists should supplement this with any further information they wish to present for clarity or audit purposes.

6.2 Submission of *LANDMAP* Information

Aspect Specialists have an important role in the delivery of the *LANDMAP* project. Their technical submissions for each study area must be comprehensive and should include:

- GIS polygons showing delineated Visual & Sensory Aspect Areas
- A complete set of digital data records for the Aspect Areas, in the form of standard Data Capture Forms
- A comprehensive Technical Report with the specified content
- All paper documentation including correspondence, maps and field data sheets

7 Quality Assurance

On completion of the work of Aspect Specialists for any particular study area, the information collected has the status of "Interim" Information until it is Quality Assured. To ensure nationally consistent and high standards, the *LANDMAP* Quality Assurance Panel undertakes Quality Assurance checks before any data-sets can be approved as official *LANDMAP Information*. The terms of reference for the Panel and the Quality Assurance Procedure should be studied by Aspect Specialists to ensure clarity over expectations and procedures.

8 Glossary

We have tried to use terms which are commonly understood in the landscape profession in the UK. We set out the definition of some key terms below:

CHARACTER
The distinct and recognisable pattern of elements, features and qualities that occur consistently within a particular landscape area.

ELEMENTS
Individual component parts of the landscape such as field boundaries, woodlands, patches of similar vegetation, buildings, structures and rock outcrops.

FEATURES
Prominent eye-catching elements e.g. wooded hilltop or chapel.

LANDCOVER
Combinations of natural and man made elements including vegetation that cover the land surface.

LANDFORM
Combinations of slope and elevation, that produce the shape and form of the land.

QUALITIES
Qualities are divided into two types:

- Aesthetic: the visible patterns of distribution of physical attributes in the landscape of landform and land cover. These help analyse the landscape and include criteria such as scale e.g. intimate, vast; enclosure e.g. enclosed, exposed; and diversity.

- Perceptual: the responses to a landscape felt or sensed by the assessor. These are more personal and subjective and are coloured by experience and, in some cases, by the time that the assessment was carried out. Assessors attempt to synthesise a range of potential responses to an area. They include terms such as wildness, tranquillity and shelter.