



Countryside Quality Counts

JCA Sub Zones: Mapping and Consultation



June 2007

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Introduction

This report describes the mapping of JCA Sub Zones (undertaken as a part of the Countryside Quality Counts - CQC project) and summarises the results of the feedback obtained from consultation with the professional landscape community.

Consultees generally found the Sub Zones to be an inconsistent and unsatisfactory spatial framework which in the majority of cases did not reflect the variation in landscape character as it was understood locally.

Background

Descriptive sub-divisions of the Joint Character Areas (JCA) were originally produced by consultants for the Countryside Agency in 2004. This work was undertaken in order to provide information to help inform the first targeting guidance being developed by Defra for the Environmental Stewardship schemes. The brief instructed the consultants to identify the distinctive characteristics of different parts of each JCA, in recognition of the important spatial patterns and variations that occur within the majority of JCAs. The descriptions then known as the 'fine grained areas' were described in text but were not mapped. Particular attention was paid to variations in the character of the farmed landscape.

The subdivisions were based on JCA descriptions and on county, district and other detailed Landscape Character Assessment (LCA) coverage (e.g. for AONBs) wherever these were available. In practice they relied mainly on county LCAs, which were most suitable in scale. Given the emphasis on local distinctiveness, the subdivisions reflected landscape character **areas** (or groups of landscape character areas) where the supporting LCAs allowed. However, where LCAs identified **landscape types** only, these were grouped into broader tracts of landscape with similar character. Where no county LCAs were available, other available assessment coverage was used. In some instances the only source was the original JCA descriptions. – In which case these texts were reviewed for relevant information on spatial variation.

Methodological approach

The mapping of sub-units for JCAs (Joint Character Areas) was undertaken as part of the CQC Project jointly by the CEM (Centre for Environmental Management, University of Nottingham) and a team of consultants led by Land Use Consultants (LUC).

The following table gives an overview of the participating consultants and the number of JCA's allocated to them:

Name	Number of JCAs allocated
Land Use Consultants	94
Julie Martin Associates	21

Sheils Flynn	23
Countryside	20
Total	158

The consultants mapped the JCA Sub Zones directly onto printed maps of each JCA according to guidelines provided to them by LUC. The completed maps were sent to the University of Nottingham where they were scanned for digital storage. The JCA Sub Zones were digitised on-screen using ArcGIS 9.0. The polygons are stored as multi-part polygons.

The resulting polygons are stored in Shapefile format. Attributes include:

- the JCA Sub-Zone number (JCA SUB-ZONE);
- the name of the sub-zone (Descript);
- a short number of the JCASub-Zone for identification and labelling (JCA SUB-ZONE_shor)
- Area and;
- Perimeter

The JCA outer-boundaries were followed using the trace function in ArcGIS. Where urban areas were excluded from the JCA Sub Zones, these were cut from the polygons using the ODPM (Office of the Deputy Prime Minister) 2001 urban-boundary.

The following JCA's were not subdivided by the consultants:

JCA 4 - Cheviots	JCA 84 – Mid Norfolk
JCA 13 – South East	JCA 112 – Inner London
Northumberland Coastal Plain	JCA 121 – Low Weald
JCA 41 – Humber Estuary	JCA 124 – Pevensy Levels
JCA 55 – Manchester Conurbation	JCA 135 – Dorset Heaths
JCA 58 – Merseyside Conurbation	JCA 155 - Carnmenellis
JCA 77 – North Norfolk Coast	JCA 159 – Lundy
JCA 78 – Central North Norfolk	.
JCA 80 – The Broads	

General issues noted during the mapping process

A number of issues became apparent during the mapping process.

These can be summarised as

- Boundaries and the level of generalisation within the source data
- Mapping of urban areas
- Mapping of landscape types and landscape areas

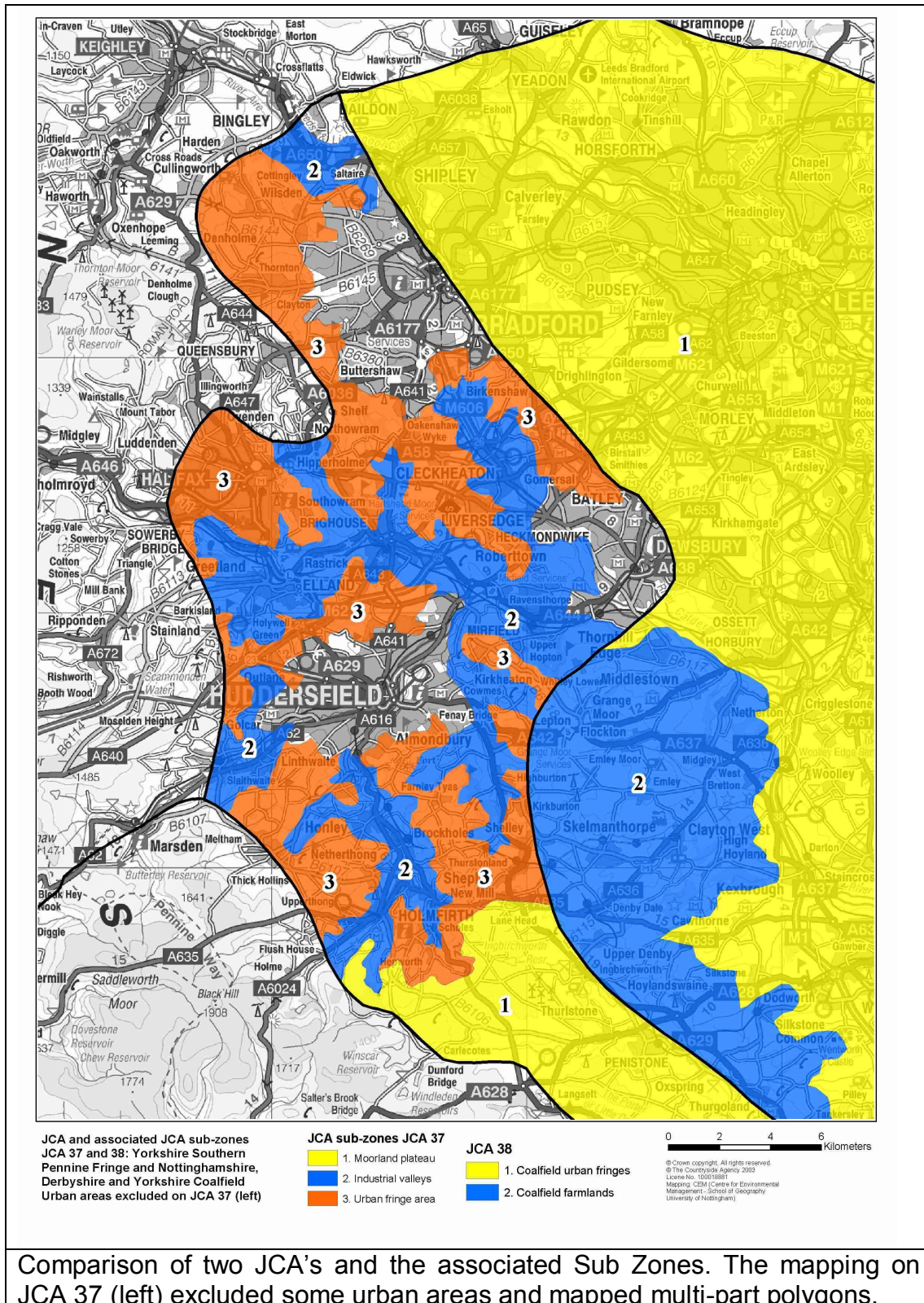
Boundaries and level of generalisation in Source Data

Mapping the Sub Zones was informed by existing Landscape Character Assessments and similar documentation. Due to different interpretations of Landscape Character Assessment guidance across the country there were a significant number of issues and inconsistencies in the information and data used by the different consultants.. These are summarised below:

- Boundaries were sometimes approximate to county Landscape Character Areas, although individual Landscape Character Areas may be grouped or split as is the case with the New Forest Landscape Character Assessment.
- Some counties, such as Durham and Lancashire, rely mainly on Landscape Character Types. This means that the pattern of landscape units can be more fragmented with parcels of the same type occurring in different locations. An example of this exists in the Lancashire LCA; the North Pennines and the two Bowland Fringe character areas: both are within the Moorland Fringe JCA Sub Zone despite being in different geographical locations.
- Where a county has both Landscape Character Areas and Landscape Character Types , as is the case in Hampshire, this can give rise to problems of consistency deciding which boundaries to follow. For example, in relation to river valley landscapes, there exist the tightly drawn river valley Landscape Character Type and the more generously drawn Landscape Character Area. The project has tended to use the character areas because most of the other fine-grained units are based on character areas and this ensures a degree of consistency with this issue.
- Land Description Units (LDUs) provide a more detailed framework for areas at a scale below that of areas and types. Where these have informed the sub zone boundaries the resulting boundaries tend to be more detailed (as is the case with Dartmoor) than boundaries of fine-grained units which are not informed by LDU mapping.
- There is an issue of cartographic consistency: should boundaries be drawn in a precise, detailed manner or by following a more generalised and broad-brush approach. The latter probably being a better reflection of the accuracy of the fine-grained classification.
- Sometimes, the sub zone boundaries do not conform to existing boundaries. For example, in the New Forest, boundary lines have had to be drawn to fit the fine-grained descriptions; they do not necessarily match Landscape Character Area, Landscape Character Type or Land Description Unit boundaries.

Mapping of urban areas

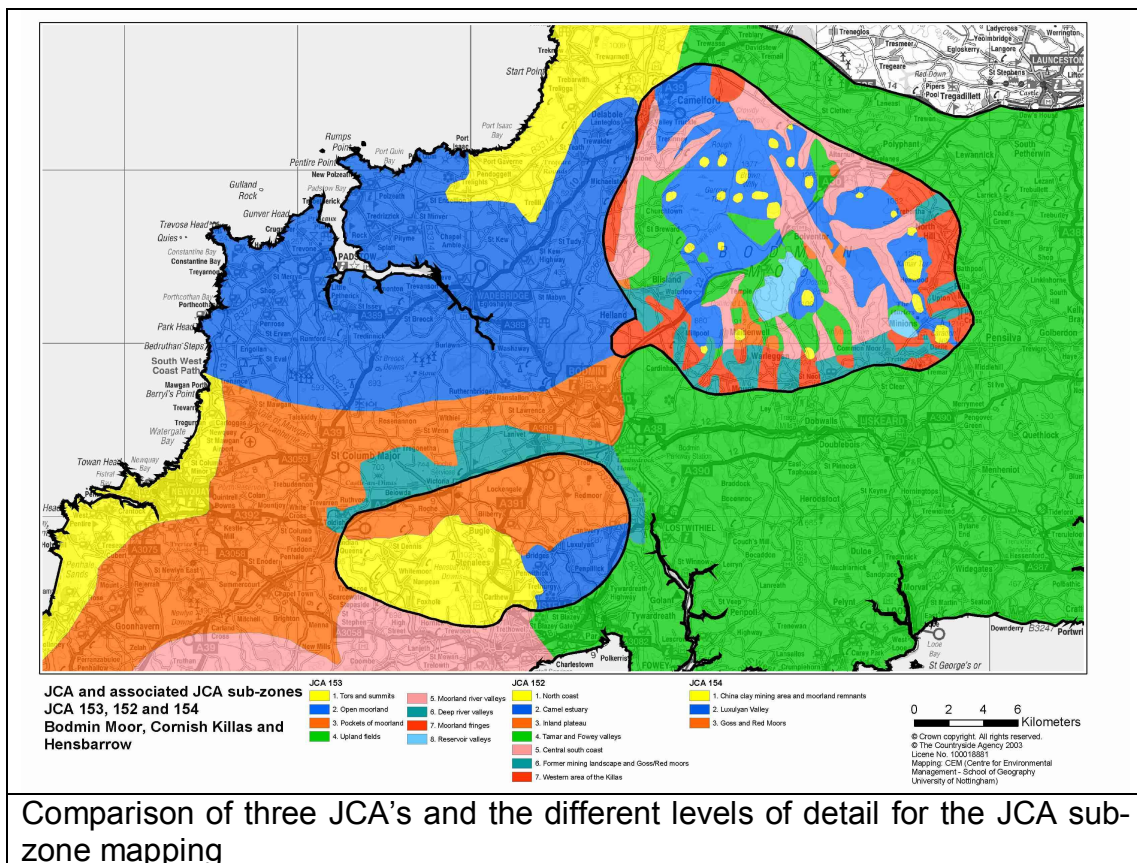
In some Sub Zones, urban areas were excluded from the sub zone using the ODPM 2001 urban-boundary. This means that there is inconsistency between the different JCA Sub Zones: some Sub Zones include urban areas and others do not include them depending on how the consultant chose to deal with urban areas.



Mapping of landscape types and landscape areas

Consultants generally mapped the JCA Sub Zones as geographically distinct unique polygons i.e. as a unique area. These JCA Sub Zones are analogous to landscape character areas. However, some of the consultants mapped multi-part polygons where several polygons of the same class are present within one JCA. These JCA Sub Zones are analogous to landscape character types.

This inconsistency between JCAs is particularly noticeable in some regions. This is illustrated on the map of Cornwall below where a very detailed level of generalisation in one JCA (153 Bodmin Moor) is located adjacent to a JCA (152 Cornish Killas) with very coarse mapping.



Comparison of three JCA's and the different levels of detail for the JCA sub-zone mapping

Feedback from Consultation Process January 2006

The 2nd Assessment of Change in Countryside Quality was undertaken between September 2005 and December 2006. As a part of this assessment included two consultation events were undertaken; firstly to capture local knowledge and secondly to test and validate the findings of the assessment. As part of the 1st round of consultation, undertaken in the autumn of 2005, consultees were asked, amongst other things, to comment on the JCA Sub Zones.

Using the web-based consultation process two maps showing the JCA Sub Zones were made available as downloadable pdf's. Consultees were asked to use the maps and consider the Sub Zones; whether they accepted or rejected the Sub Zones and how the Sub Zones could be improved.

From a total of 367 responses 59.4% accepted the Sub Zones while 40.6% rejected them. In general, a large number of those respondents who accepted the concept of Sub Zones also included suggestions as to how to improve the sub-zone boundaries.

Additionally, there were a total of 186 comments suggesting improvements to the JCA Sub Zones (50.7% of all respondents). These have been classified into the broad categories described below, ranging from fundamental disagreement with the mapping or the concept to overall agreement with suggestions for minor corrections.

This illustrates a considerable level of disagreement with the mapped units.

Total number of consultation replies	367
Number of replies accepting the JCA Sub Zones	218 (59.4%)
Number of replies rejecting the JCA Sub Zones	149 (40.6%)
Number of improvement comments	186 (50.7% of total)
Number of improvement comments by respondents who rejected the acceptance of JCA Sub Zones	86
Number of improvement comments by respondents who accepted the JCA Sub Zones	100

Basic statistics showing the number of replies in general and more specific to the sub-zone relevant input fields.

Category	Number of responses
1. Overall agreement	
Overall agreement (no improvement suggested)	9
Overall agreement with the JCA Sub Zones but minor correction suggestions	17
2. Disagreement including suggestions for improvement	
Suggestions for corrections regarding the location of the boundary of one or more Sub Zones including details on how to improve them or contact details for maps, more feedback or GIS data for improving the boundary	74
Major correction suggestions regarding the number and naming of Sub Zones regarding missing distinct zones and unnecessary ones or wrong or misleading naming for the Sub Zones	8
More diversity present within JCA then reflected in Sub Zones	28
3. Fundamental disagreement	
Pointing to existing more detailed sources of information and the area, coverage or boundary of JCA is too narrow or is wrong	25
Problem of JCA overlap with park boundary (NP/AONB's)	5
Not possible to agree on JCA JCA Sub Zones because the methodology and/or intended use is unclear	12
Fundamental disagreement with concept of Joint Character Area	12
4. No Sub Zones provided or technical problems	
No Sub Zones provided (agreement)	1
No Sub Zones provided although there should be Sub Zones	5
No Sub Zones provided, neither agreement nor disagreement	1
Blank downloads/technical problems viewing the maps	3
5. Misunderstanding of the Question	
Answers stating issues that would improve the situation of a certain JCA or sub –zone (misunderstanding)	2

Categories of responses/comments on JCA Sub Zones (one response can contain several of these categories)

	Total replies	% of total replies	English Nature	RDS/ Defra	Councils	Protected Areas
1. Overall agreement	26	12.8%	19%	12.5 %	15.1%	13%
2. Disagreement including suggestions for improvement	110	54.5%	38%	62.5 %	74.2%	52.2%
3. Fundamental disagreement	54	26.7%	38%	12.5 %	7.5%	26.1%
4. No Sub Zones provided or technical problems	10	4.9%	4.7%	12.5 %	3.2%	8.7%
5. Misunderstanding of the Question	2	1%	na	na	na	na
Number of replies by category ¹	202		21	8	93	23

Overall percentages of response categories as total and split up by respondents by four important groups of respondents (EN, RDS/Defra, Councils and Protected Areas).

The majority of comments disagreed to a certain extent with the mapping as presented but did include constructive suggestions for improvement (54%). The suggestions ranged from vague comments to very detailed feedback with reference to existing datasets and even contact details with the offer to provide more input for improvement.

The disagreements were mainly concerned with the location of specific Sub Zone boundaries and, in a minority of cases, to do with the naming of the Sub Zones.

A significant number of responses (26.7%) showed fundamental disagreement in that methodology and intended use of JCA Sub Zones were described as unclear and/or inferior to existing boundaries which are employed below the JCA scale, for example, Landscape Character Area, Landscape Character Type or Land Description Unit boundaries.

Overall only 12.8% of respondents agreed to the Sub Zones as mapped in the comment section of the consultation. Note that 59.4% of respondents did accept the Sub Zones when given the dual choice. Many of those however made improvement comments that had their input classified as disagreement.

¹ The total number of replies by category does count up to two reply categories per respondent in cases where the comment fitted in more than one category.

Conclusions

The consultation process illustrated that JCA Sub Zones were not universally accepted as valid sub-divisions of the Joint Character Areas. Although there was some agreement with the divisions, there was a significant amount of disagreement regarding them.

Given that the CQC consultation attempted to engage local landscape professionals with expertise and knowledge of 'their' patch, the strength of disagreement with the Sub Zones would suggest that they are not sufficiently accurate for use in their current state and will require a full review and further period of consultation..

However, the concept of Sub Zones was not entirely rejected; instead it was the methodology, the underlying contract brief for the creation of the fine-zones ie. to concentrate on variation in the character of the farmed landscape and the lack of accessible local knowledge that resulted in a failure to gain widespread acceptance. There is great variation in the methods of developing the JCA Sub Zones. A more consistent approach which can combine local knowledge and background datasets would be required for the JCA Sub Zones to be rigorous and acceptable for general use.

We recommend therefore that the JCA Sub Zones, in their current state are not used for any purpose.