



Targeting residential development on previously developed land: an unrealistic proposition for rural local planning authorities?

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Structure

- Policy Context
- A National **Land Use** Database (NLUD)?
 - of Previously Developed Land (PDL)
 - Data sources and methods
- Urban and Rural Areas
 - Options
- Results
- Conclusions



Policy Context

- Mid-1990s government aware of ticking ‘time bomb’ of changing demographic trends
 - Ageing population
 - Older people living in own housing rather than institutions (care in the community)
 - Household structures (separation/divorce/remarriage)
 - Single persons
 - People forming households with children at older ages
 - Increased immigration (especially from EU countries)



Policy Context

- Implications
 - Slower turnover of housing
 - Demand for different types and sizes of housing
 - Increased demand for housing
 - Deterioration in quality of housing stock
- Issues connect with (urban) regeneration agenda
 - English Partnerships established early 1990s as national regeneration agency (Homes and Communities Agency as of April 2009)
- Policy attempting to limit new housing development to greenfield sites introduced by Conservative government of mid-1990s



Policy Context

- Projected demand for over 4 million new dwellings by 2015 at that time
 - Demand for new housing increased during first decade of 21st century
- Issue inherited by 'New Labour' in 1997
- Local authorities were set targets for at least 60% of new housing on brownfield land
- Target setting and monitoring, especially of housing, has become increasingly important part of spatial planning system in recent years
- Need for evidence – National Land Use Database of Previously Developed Land



Meaning and Impact in Rural Areas

- Aim is to explore the outworking of these issues in rural areas, including
 - an analysis of records in the NLUD-PDL in relation to the opportunities for **rural** local planning authorities to identify such sites and thereby potentially meet targets
 - an examination of issues involved with identifying PDL sites in rural areas where re-development for residential purposes could take place

NLUD – Full, Baseline and PDL

- Original concept of a National Land Use Database (NLUD) developed in DoE in late 1980s/early 1990s.
- Baseline data from Ordnance Survey digitisation of topographic mapping.
- Trial project to derive land use change data as a by product of routine re-surveying by OS.
- Overall aim to provide government and other stakeholders with better information on land use.
- A system of land classification was established in 1998, although the NLUD Full concept was dropped.
- OS using different data sources (RS/APs) and technologies (GIS/Image Processing) to complement field surveying.



NLUD of Previously Developed Land

- Instead NLUD-PDL started operation in 1999 and has continued with local authorities providing annual updates of PDL sites, although it is not a statutory requirement.
- NLUD Full concept re-visited in 2002-04 by ODPM with a county demonstrator study relying on various data sources but not local planning authorities, where most land use change is authorised.
- Early decision to capture PDL sites as points (not polygons) with physical area as an attribute on account of variability in GIS and mapping capabilities between LAs (some LAs provided polygon data as well).



Categories of PDL

- Five categories of PDL
 - A – Previously developed now vacant, generally cleared of buildings and suitable for reuse
 - B – Vacant buildings that have been unoccupied for at least 12 months
 - C – Derelict land and buildings, needing work to make suitable for redevelopment
 - D – Land and buildings currently in use and allocated in the local plan and/or having planning permission
 - E – Land and buildings currently in use where it is known there is potential for redevelopment (although the sites do not currently have any plan allocation or planning permission)

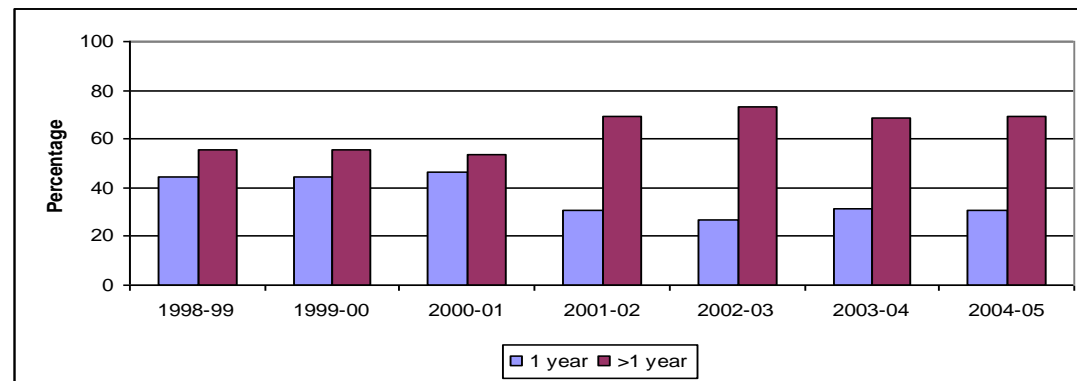
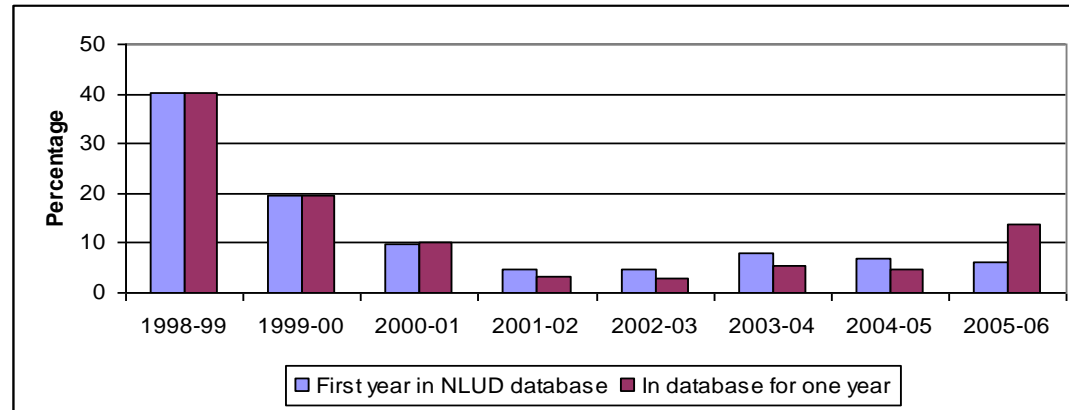


NLUD-PDL Data

- Points not polygons
 - Easting and northing grid references to estimated centre of site (a few GRs incorrectly specify offshore location)
- Following analysis uses data for 1998-2006
- Site histories
 - Individual sites enter and leave the database, some may re-enter
 - Sites can change use during their history in database
- Variables
 - Previous and current use, most suitable use, suitability for housing, area and estimated number of housing units, ownership

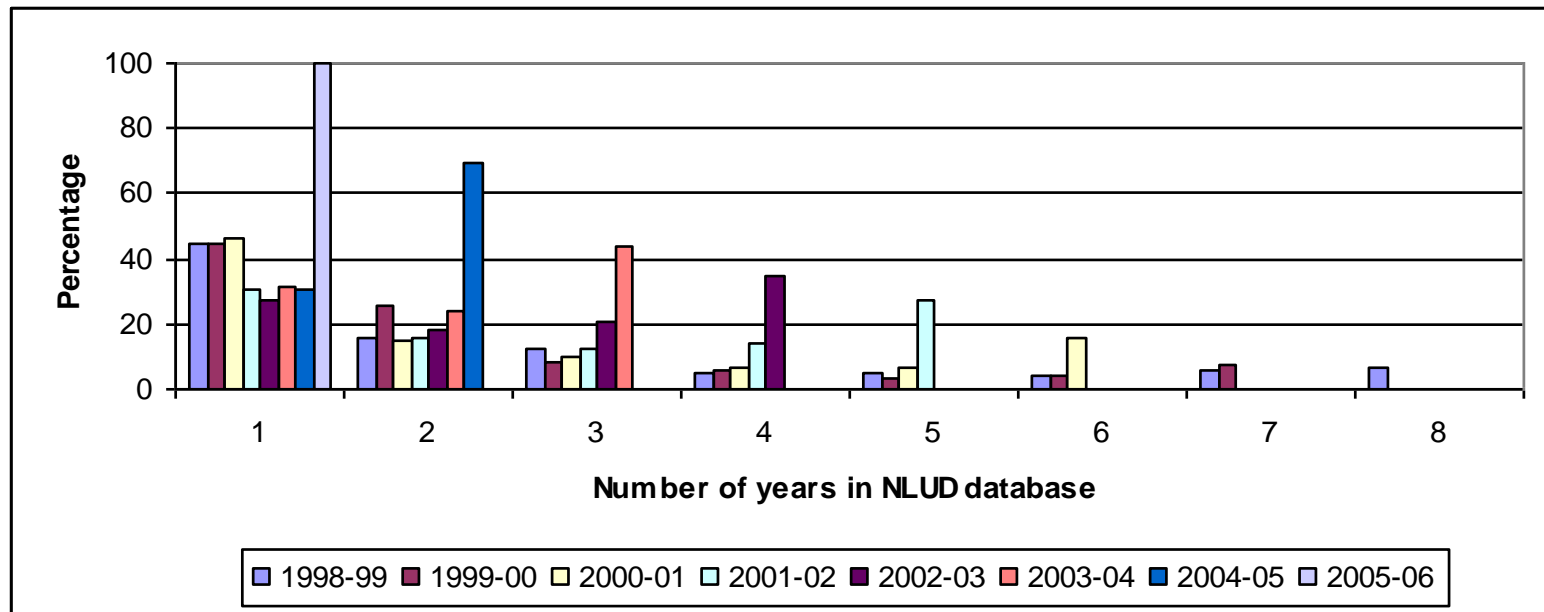
NLUD-PDL Database

- Complete 1998/9 to 2005/6 database contained 167,124 records including multi-year sites
- Unique site records numbered 67,930
 - decrease in new sites as % of total over the period;
 - decline in % of 'one-year' sites (45 to 30%).



NLUD-PDL Database

- 6.7% of sites included for 8 years (from start)
 - Note: unknown number of sites remained in NLUD-PDL beyond 2005-06





Rural and Urban Areas

- Three types of classification
 - ONS classification of urban settlements and rural remainder based on 2001 Census Output Areas
 - Urban and rural based on proportion of population in built-up area
 - ODPM (Communities and Local Government) Classification of wards (and other areas) into 6 categories
 - Urban >10K Sparse, Town & Fringe Sparse, Village, Hamlet & Isolated Dwellings Sparse, Urban >10K Less Sparse, Town and Fringe Less Sparse, Village, Hamlet & Isolated Dwellings Less Sparse
 - Land cover classification derived from Ordnance Survey Strategi topographic database
 - Urban, Other, Water and Woodland



Methods

- NLUD-PDL unique sites, their point locations linked within a GIS to each of the rural/urban classifications
- Present analysis focuses on the PDL categories A-D on account of sensitivity associated with category E

Unique sites by urban/rural class

CLG		OS		ONS	
Urban >10k - Sparse	0.2	Urban	78.0	Urban	93.4
	0.1		0.0		79.2
Town and Fringe - Sparse	0.8	Other	21.6	Rural	6.6
	1.1		100.0		20.8
Village, Hamlet & Isolated Dwelling - Sparse	0.6	Wood	0.4		
	1.7		0.0		
Urban 10K - Less Sparse	78.7	Water	0.0		
	65.3		0.0		
Town and Fringe - Less Sparse	11.6	PDL type constant			
	17.9				
Village, Hamlet & Isolated Dwelling - Less Sparse	8.3	PDL type variable			
	15.7				



NLUD-PDL Urban and Rural

- Unique NLUD-PDL sites (no double counting)
 - Core sites (67,174 (98.9%)) – site with same PDL category (A-D) irrespective of number of years
 - Non-core sites (756 (1.1%)) – site with change in PDL category (A-D)
- Urban/rural classification consistent – sites in urban **or** rural class on 3 classification schemes
 - Core sites:
 - 51,947 (77%) in the same type for each classification
 - 15,227 (23%) split almost identically for each classification between 96% urban and 4% rural over period
 - Non-core sites:
 - All (756) were consistent and in rural areas



NLUD-PDL Urban and Rural

- Following analysis relates to 49,907 urban sites and 2,040 rural sites that did not change NLUD category if present for more than one year and were in same area type for each classification scheme.

Housing Potential: Core Urban/Rural Sites

- Housing estimates and densities higher for urban sites across PDL categories
- Areas of rural sites higher

Average:	A - PDL now vacant	B - Vacant buildings	C - Derelict land and buildings	D - PDL or buildings currently in use in plan
Area	0.8 4.5	0.6 0.7	1.3 8.3	0.7 1.5
Estimated housing	18.5 9.6	14.6 6.0	29.4 24.8	22.1 7.0
Housing density	44.2 11.8	74.1 26.8	49.2 10.9	66.6 20.8

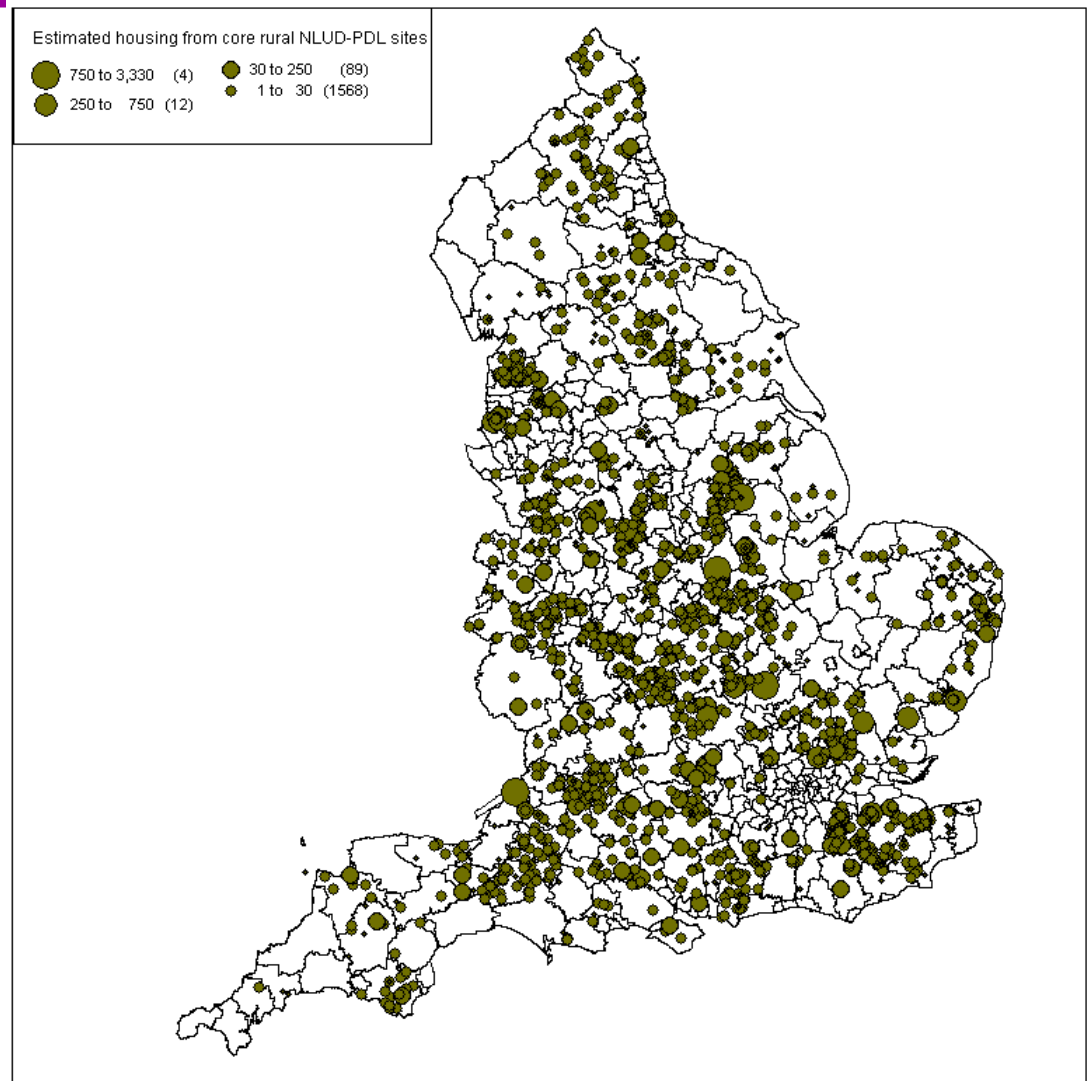
Housing Potential: Core Urban/Rural Sites

- High % of rural PDL sites destined to become housing (followed by other and employment), linked to higher % suitable for housing

	Most suitable use	Proposed use	Suitability for housing	
Employment	14.2 15.9	12.2 10.9	Yes	72.9 76.1
Housing	54.8 69.5	65.6 83.8	No	19.6 16.7
Mixed	13.2 5.2	10.9 3.2	Don't know	7.5 7.0
Open Space	6.2 3.6	2.9 1.4		
Retail	8.1 1.9	3.9 0.8		
Other	4.4 4.0	4.4 16.0		

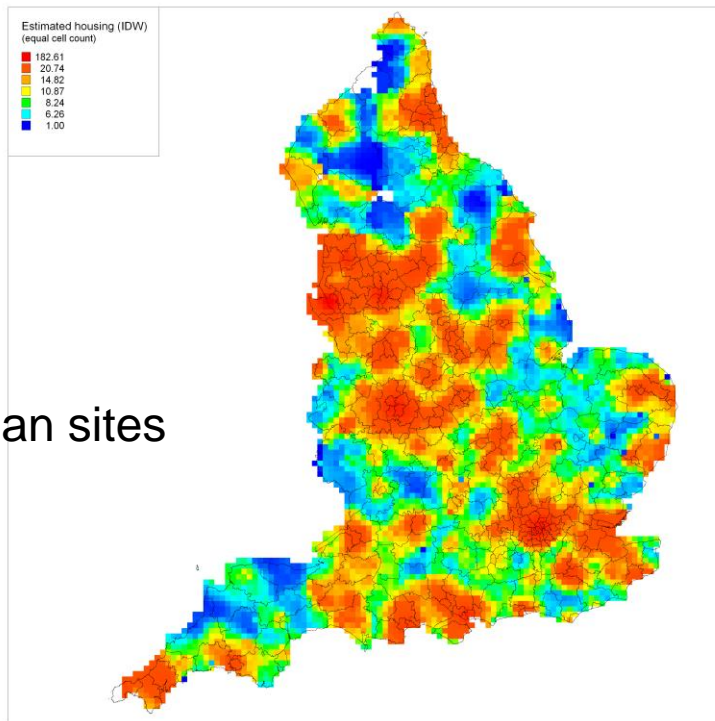
Potential Housing on Core Rural Sites

- Concentration of large housing estimates on core rural sites in central and southern England

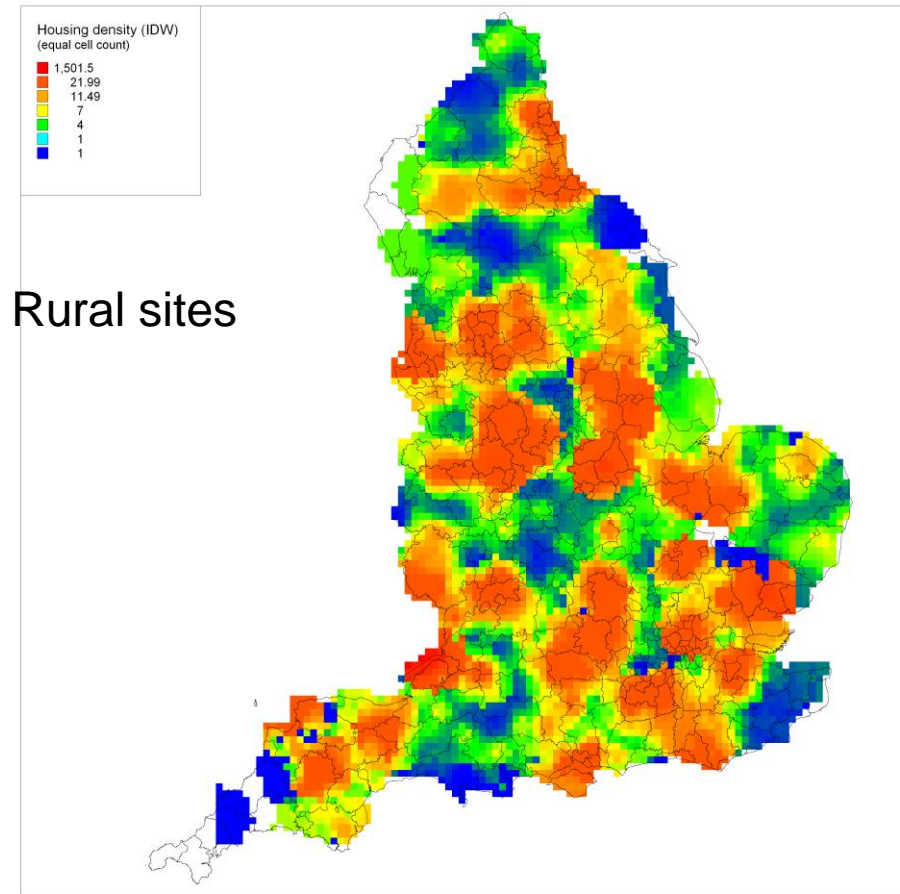


Estimated Housing on Core Sites

- Inverse distance weighted interpolation of estimated housing on core PDL sites



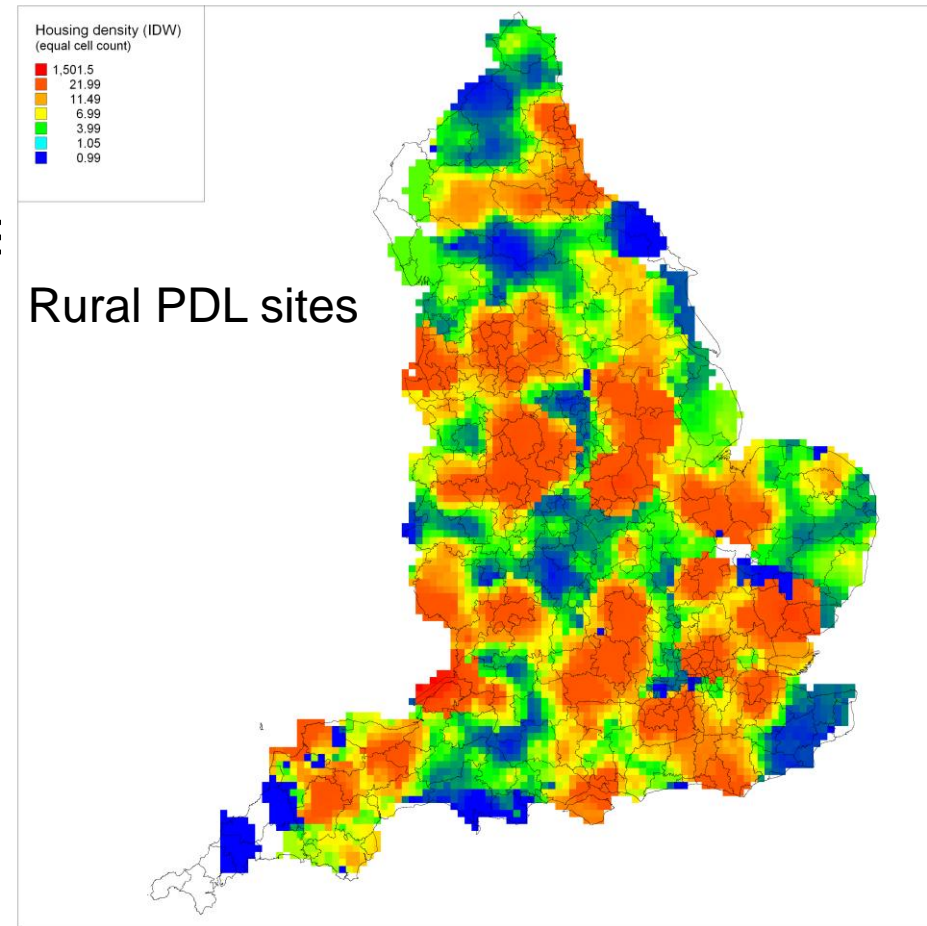
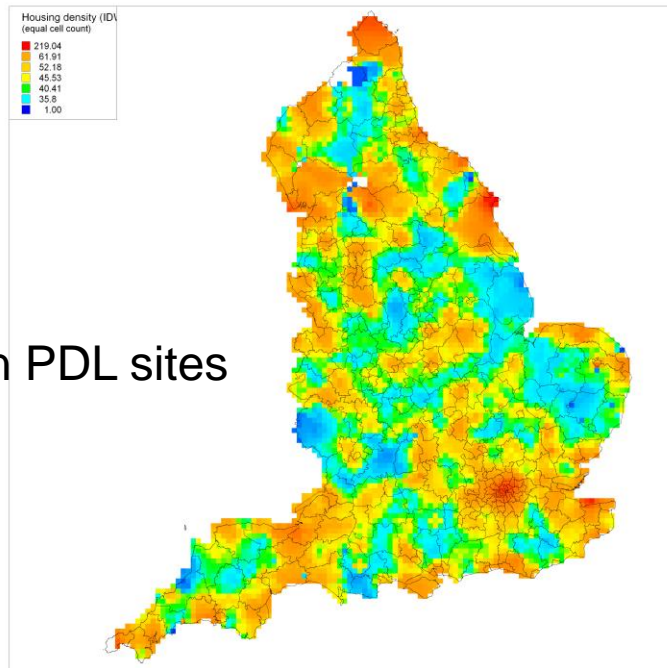
Urban sites



Rural sites

Estimated Housing Density on Core Sites

- Inverse distance weighted interpolation of estimated housing density on core PDL sites





Conclusions

- NLUD-PDL sites in rural locations, variously defined, represent a small minority of the total
- Sites in rural locations are relatively more likely to become housing with a significant percentage destined for Other uses
- Housing on PDL sites in core rural locations developed at a lower density
- Distribution of rural sites is throughout England, although less in Cumbria and eastern counties apart from Suffolk and Norfolk
- Hotspots of potential housing development on core rural sites in East and West Midlands, around Severn estuary, Essex and north west of London.