

Geography and addresses

Why excellent isn't good enough

Alistair Calder

Research, Development and Infrastructure
Office for National Statistics (England and Wales)

Geography and addresses

Our geographic base

Our address lists

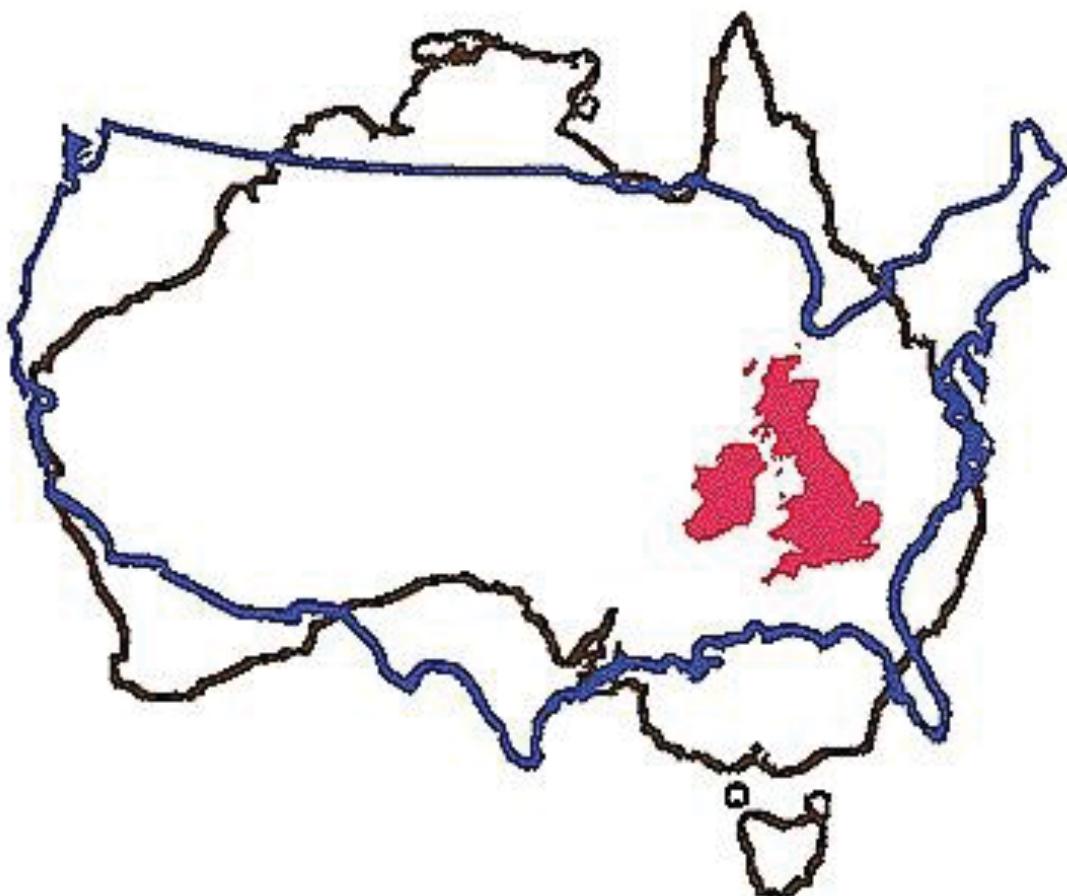


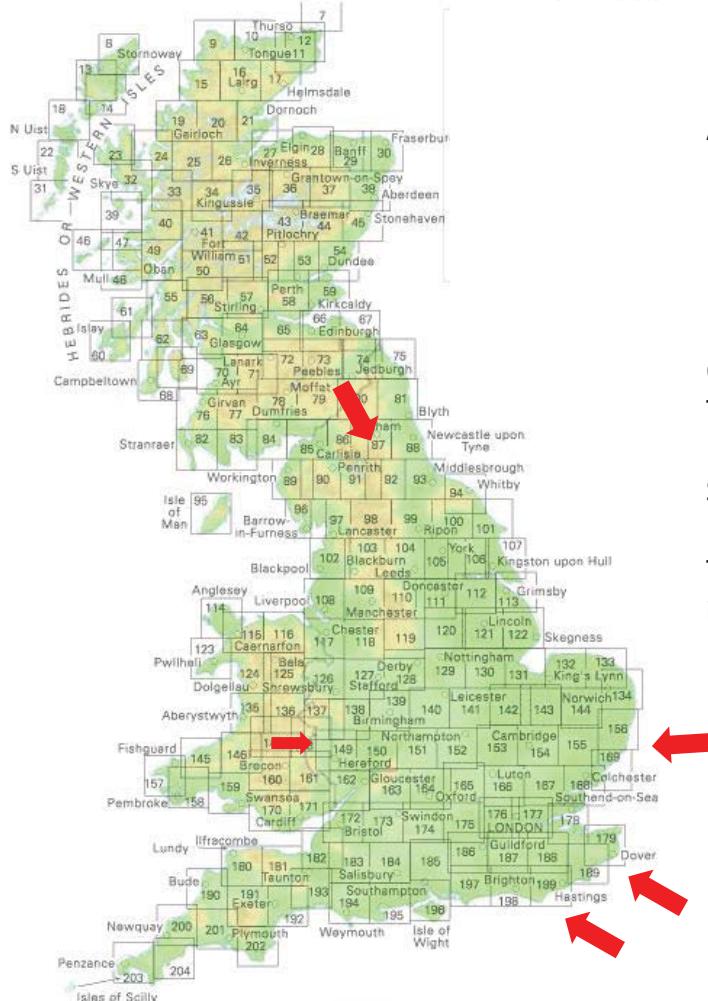
Some observations on quality and maintenance

Where we are heading - & conclusions

Our geographic base

- A little history
and why we are lucky





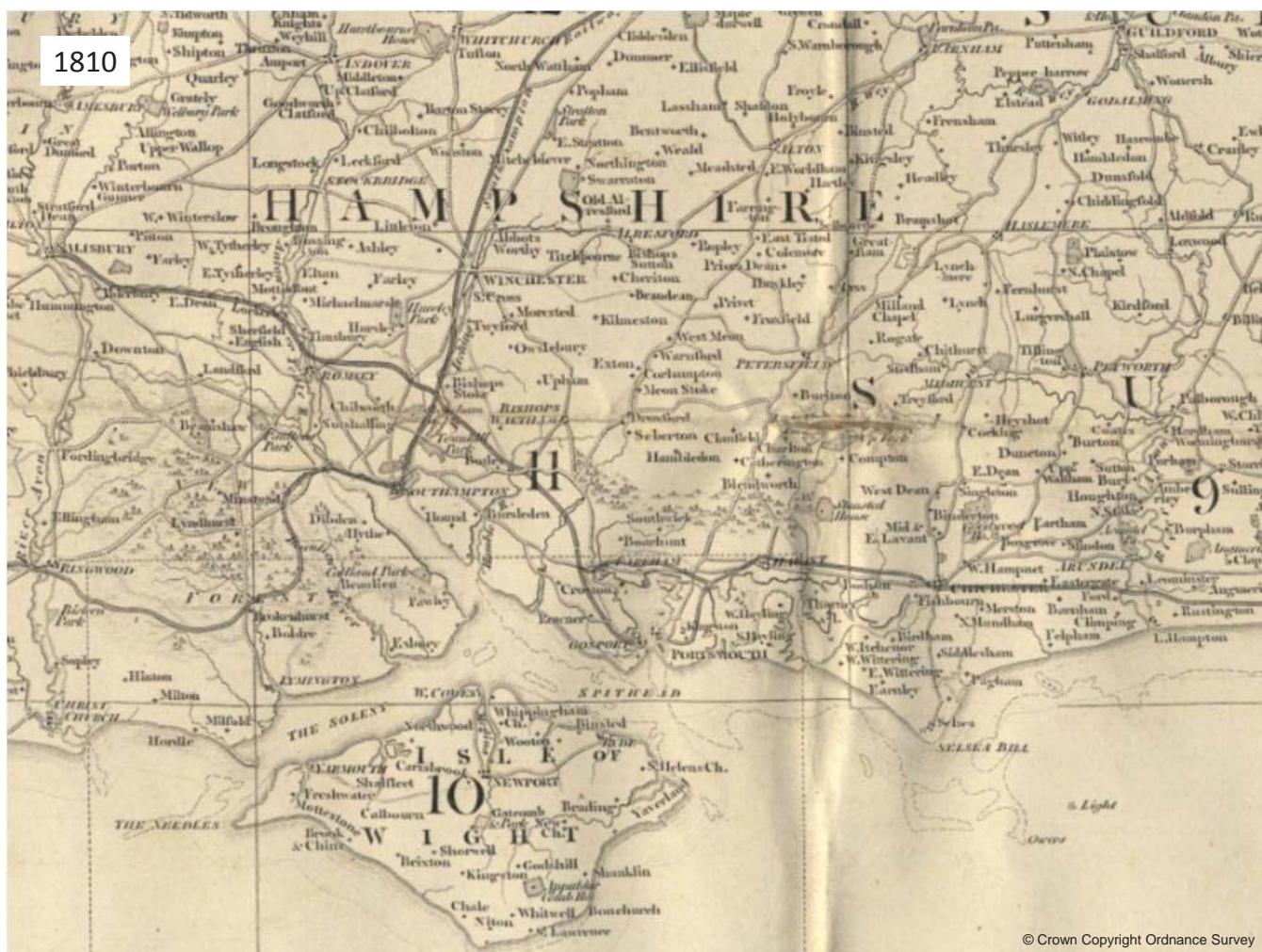
A small island
Lots of history
Lots of wars

Ordnance Survey ... 1747
Tradition of high quality national survey

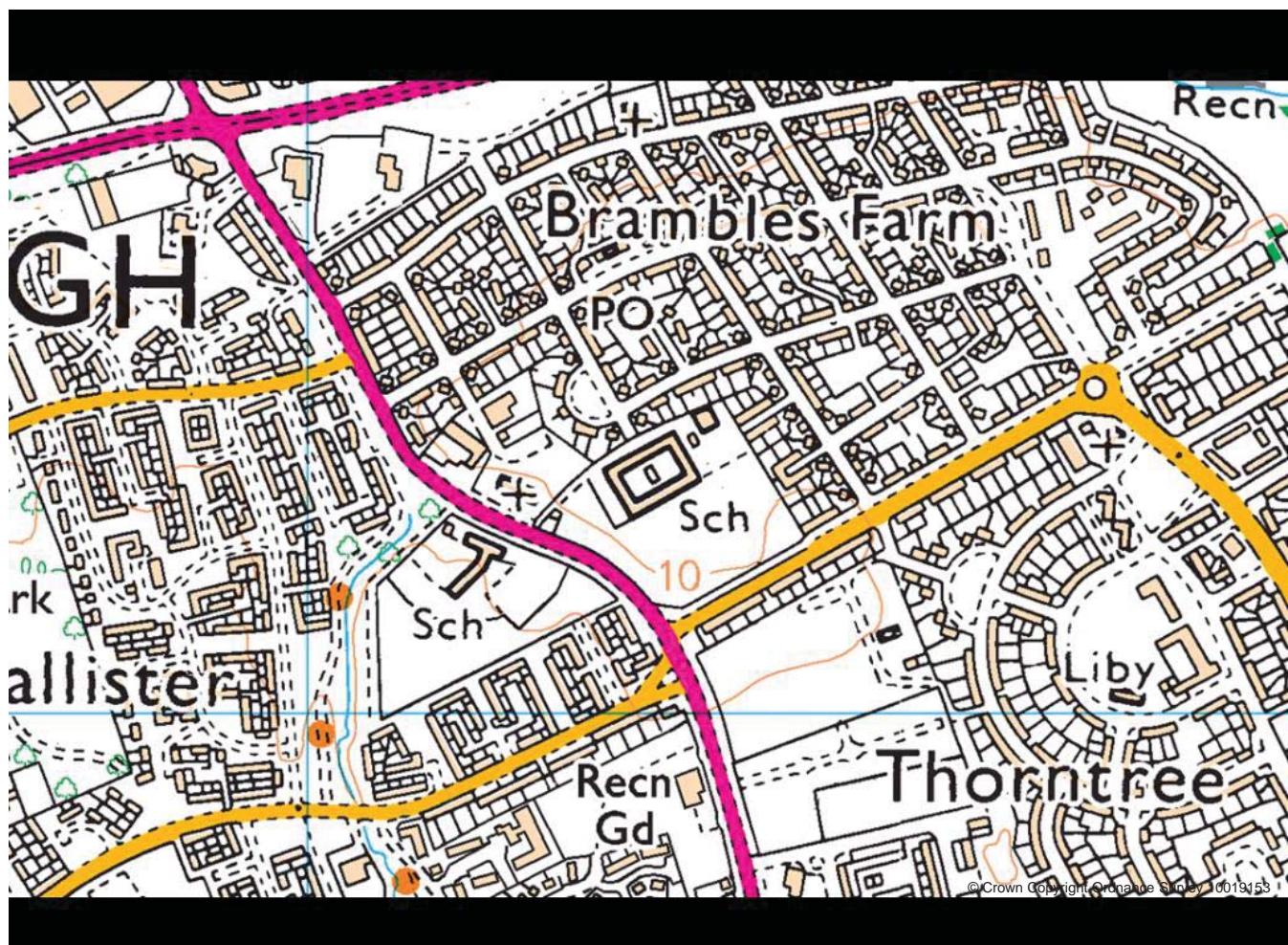
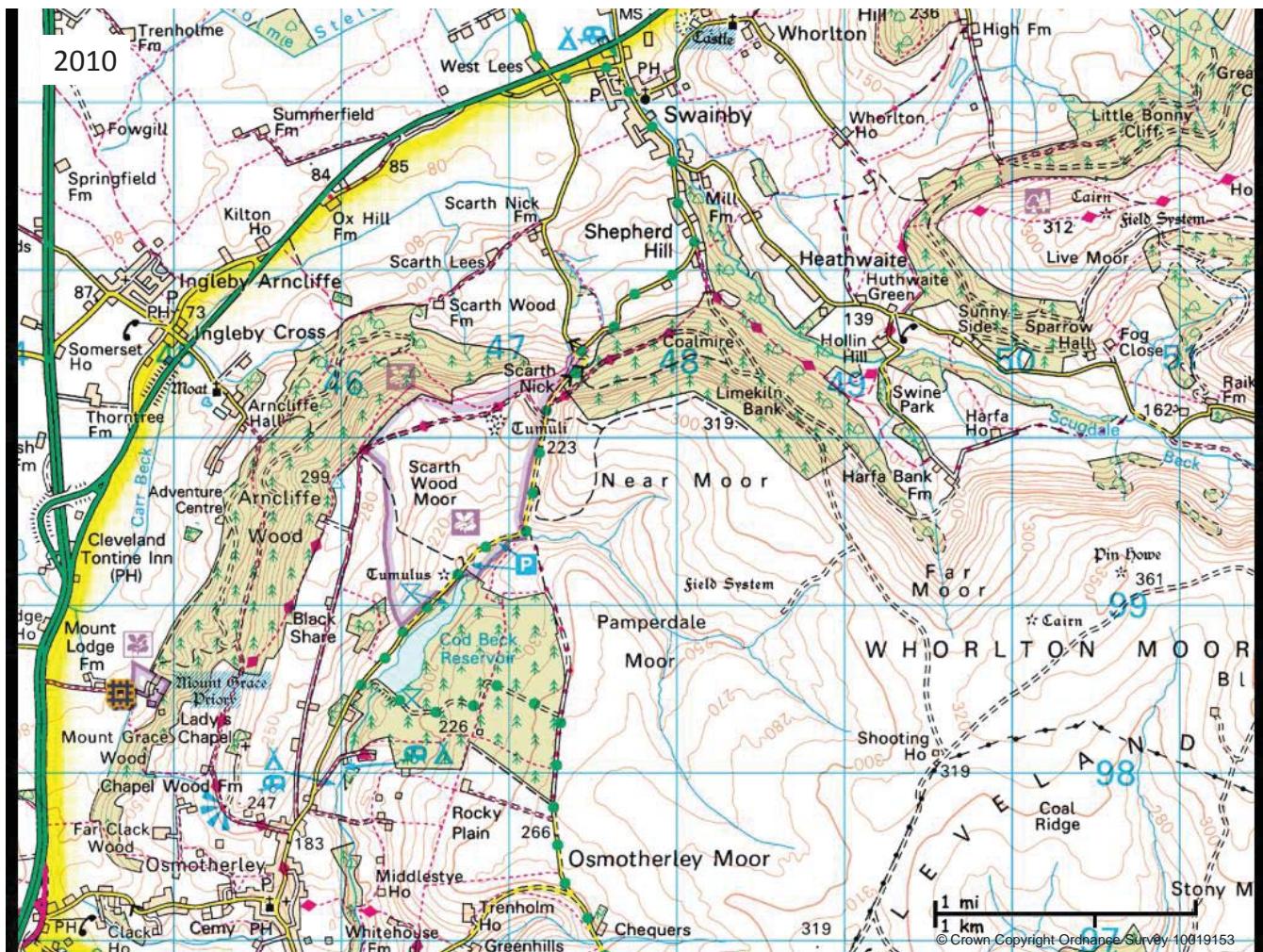
Some rural But not much

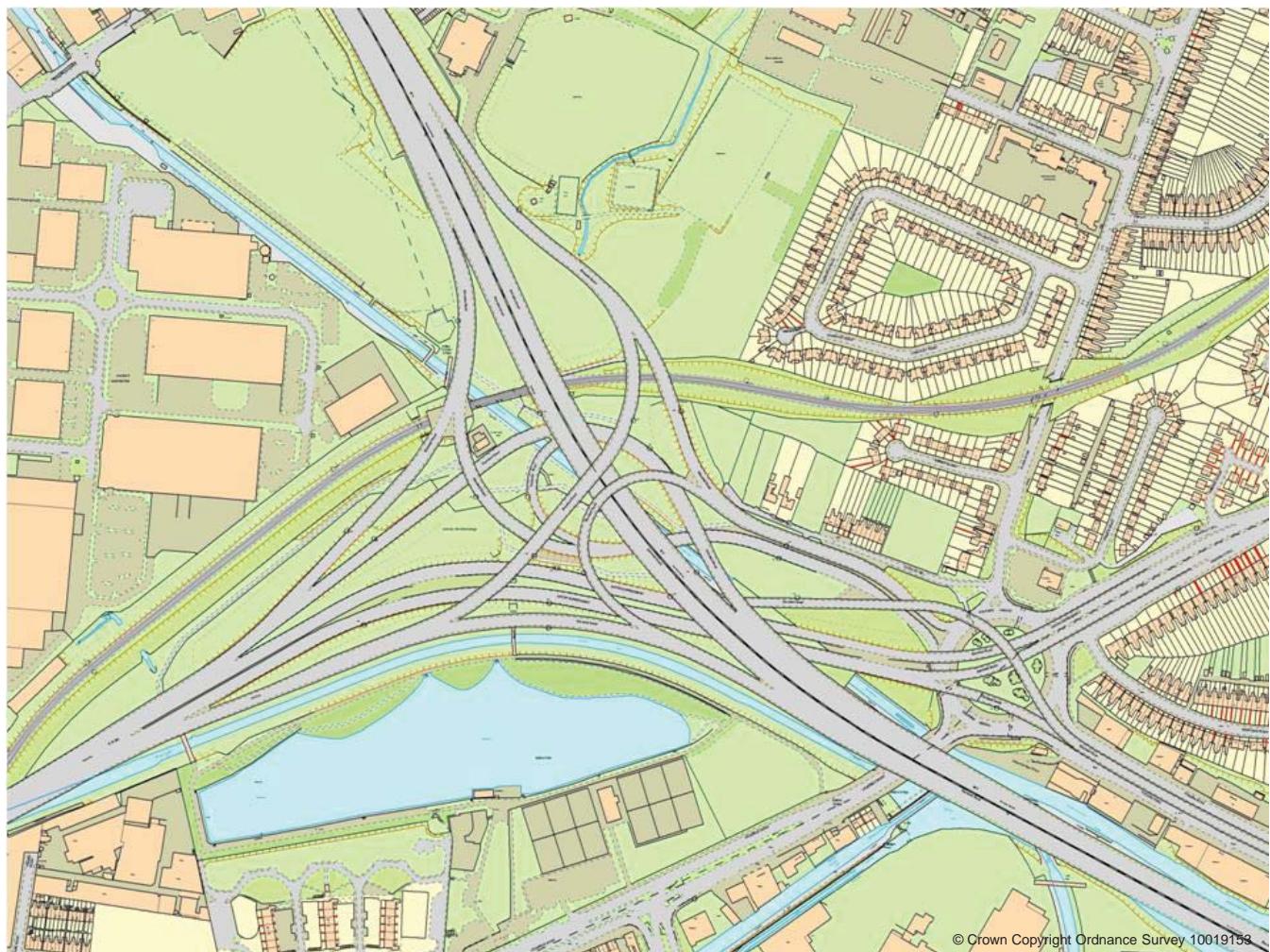
The national map part of the national
infrastructure for 250 years

© Crown Copyright



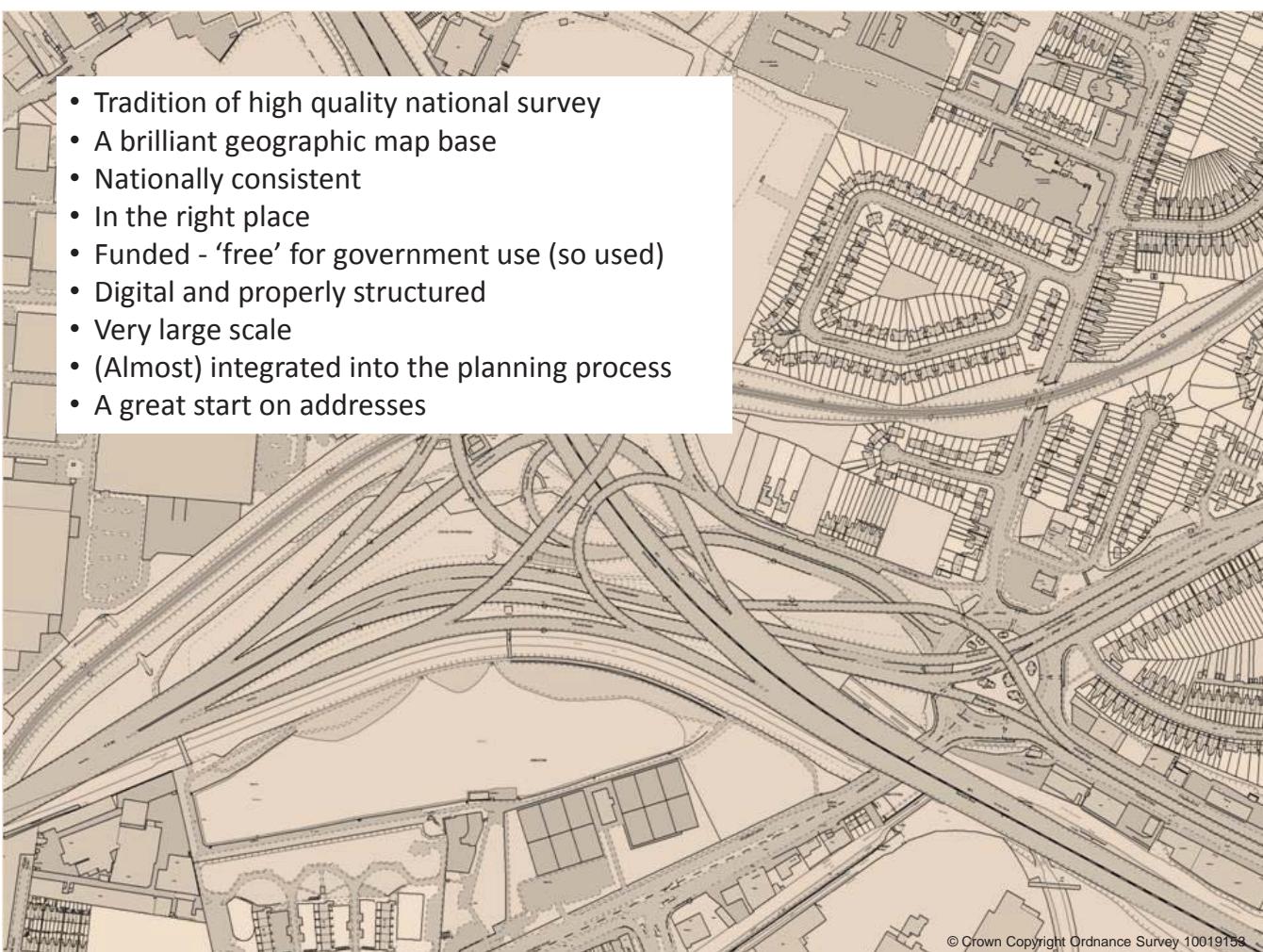
© Crown Copyright Ordnance Survey





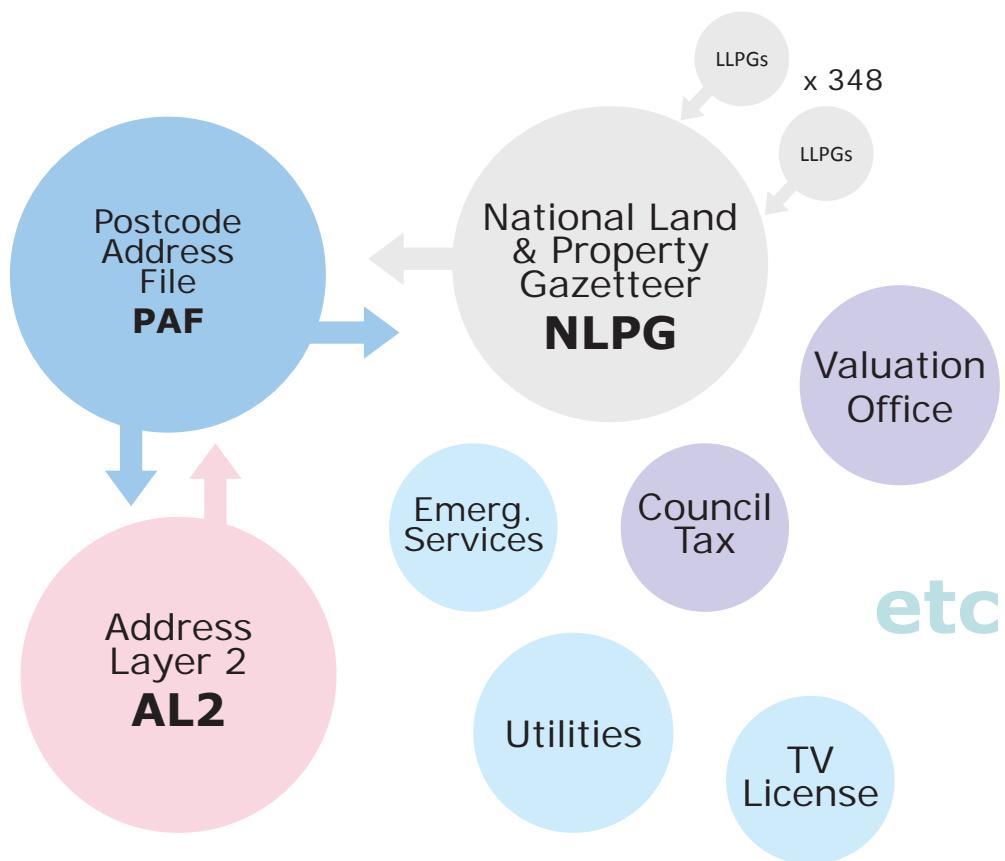


- Tradition of high quality national survey
- A brilliant geographic map base
- Nationally consistent
- In the right place
- Funded - 'free' for government use (so used)
- Digital and properly structured
- Very large scale
- (Almost) integrated into the planning process
- A great start on addresses



Our address lists

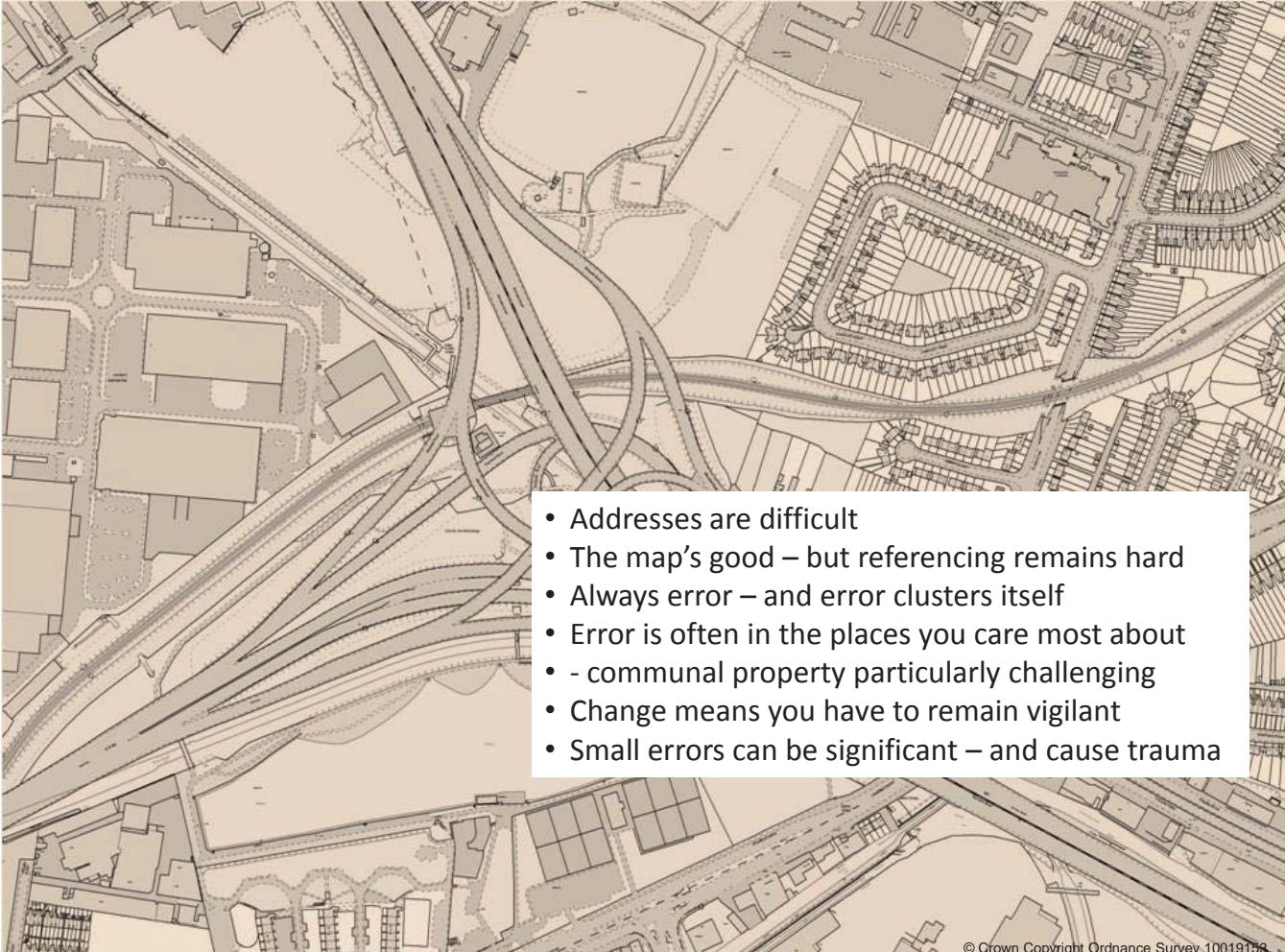
- why it is still difficult
and what we did about it in 2011











- Addresses are difficult
- The map's good – but referencing remains hard
- Always error – and error clusters itself
- Error is often in the places you care most about
- - communal property particularly challenging
- Change means you have to remain vigilant
- Small errors can be significant – and cause trauma

Mobile site E-Newsletters     Monday, 14 July 2014 Site map Register Log in

DAILY ECHO

DAILY NEWSPAPER OF THE YEAR

EDF ENERGY
London & South of
England Media
Awards 2013 



When news happens text pix and video to 80360. Start your message with BE then leave a space.

Search »

[News](#) [Sport](#) [Leisure](#) [Video](#) [Photos](#) [Info](#) [Your Say](#) [Announcements](#) [Jobs](#) [Homes](#) [Cars](#) [Dating](#) [Click2Find](#) [Buy&Sell](#) [Advertise](#)

[Districts](#) [Education](#) [Drink drive campaign](#) [Crime and Court](#) [Blogs](#) [Opinion](#) [Health](#) [Features](#) [Air Festival](#) [Events](#) [In Depth](#) [Strange](#)

Bournemouth Echo » News »

NEWS  [Send your news, pictures & videos](#)

No common census as Moors Valley ticket machine gets form

By Harriet Marsh

10:30am Wednesday 9th March 2011 in [News](#)



Where's Wally? Maybe he's the "occupier" at the Moors Valley Car Park Hut

 Email
 Print this page
 Comment(7)

CLICK2FIND

CT MOTORCYCLES

[View details »](#)

[More Motorcycles](#)

Pete Spacagna

[View details »](#)

[More Car Body Repair](#)

Bournemouth

20.0 °c

0% chance of rain



[weather forecast](#)

FEATURED JOBS

HOUSEKEEPING STAFF Wareham

RESTAURANT STAFF Wareham

HOTEL RECEPTIONIST Wareham

Learning Support Assistants BOURNEMOUTH

Mac Operator - Page Layout Artist Ringwood

YARD PERSON/ VAN DRIVER Swanage

[See 1,829 jobs in and around Bournemouth](#)

MOST READ

1. OAP couple living on the streets after dispute over pension payments
2. Our grandson died after accidentally drinking drug-spiked Lucozade – we cry every day that we have lost him
3. Hit-and-run victim has bike stolen following crash
4. Poole Town legend Taffy Richardson: I wouldn't swap



Approach to the address register

- Matched the main national address sets
- Managed change until the last minute
- Separate approach to communa
- Allowed suppliers and local authorities to check anomalies
- Address checked 15% of country – very carefully targeted

Where to check ??

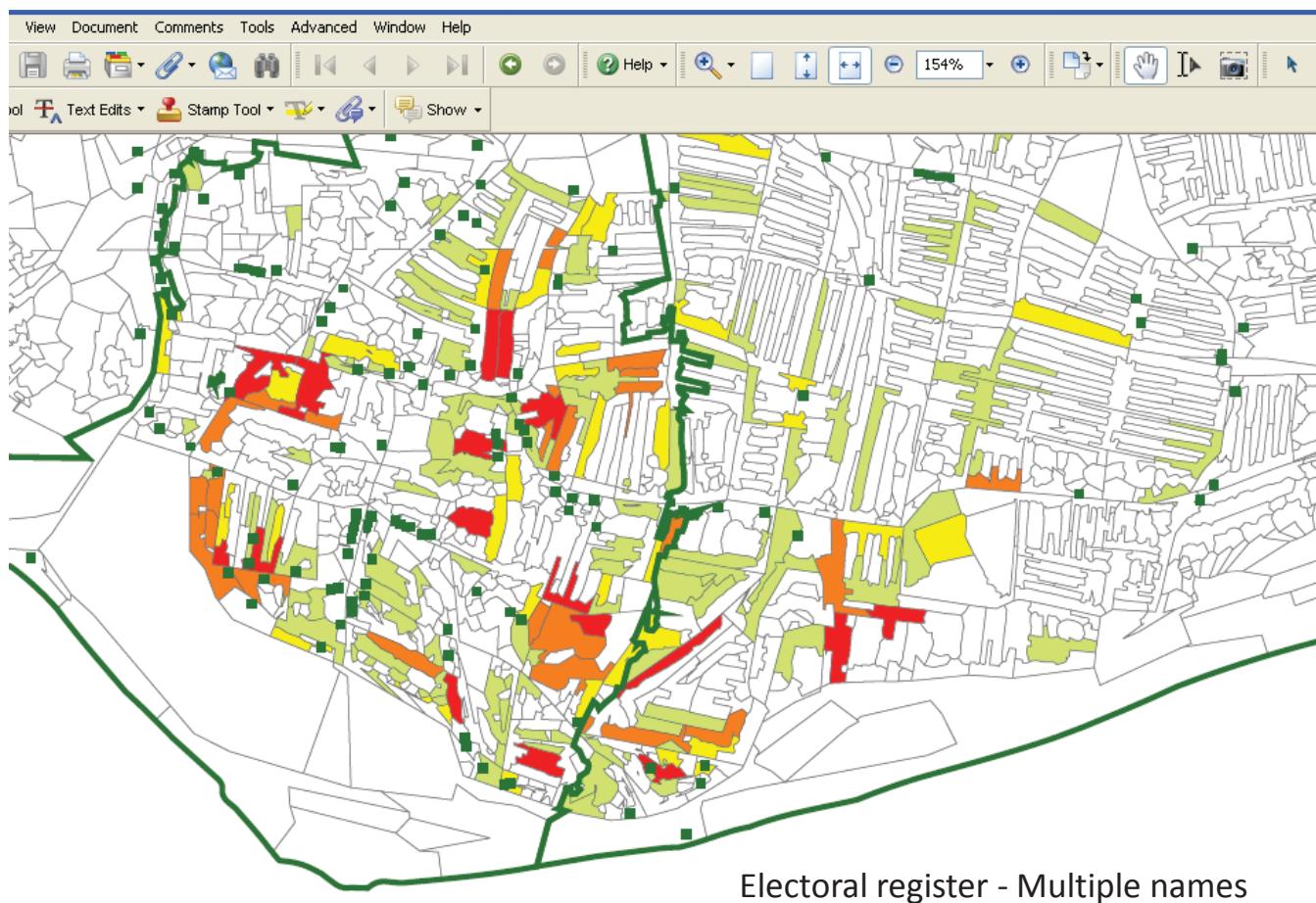
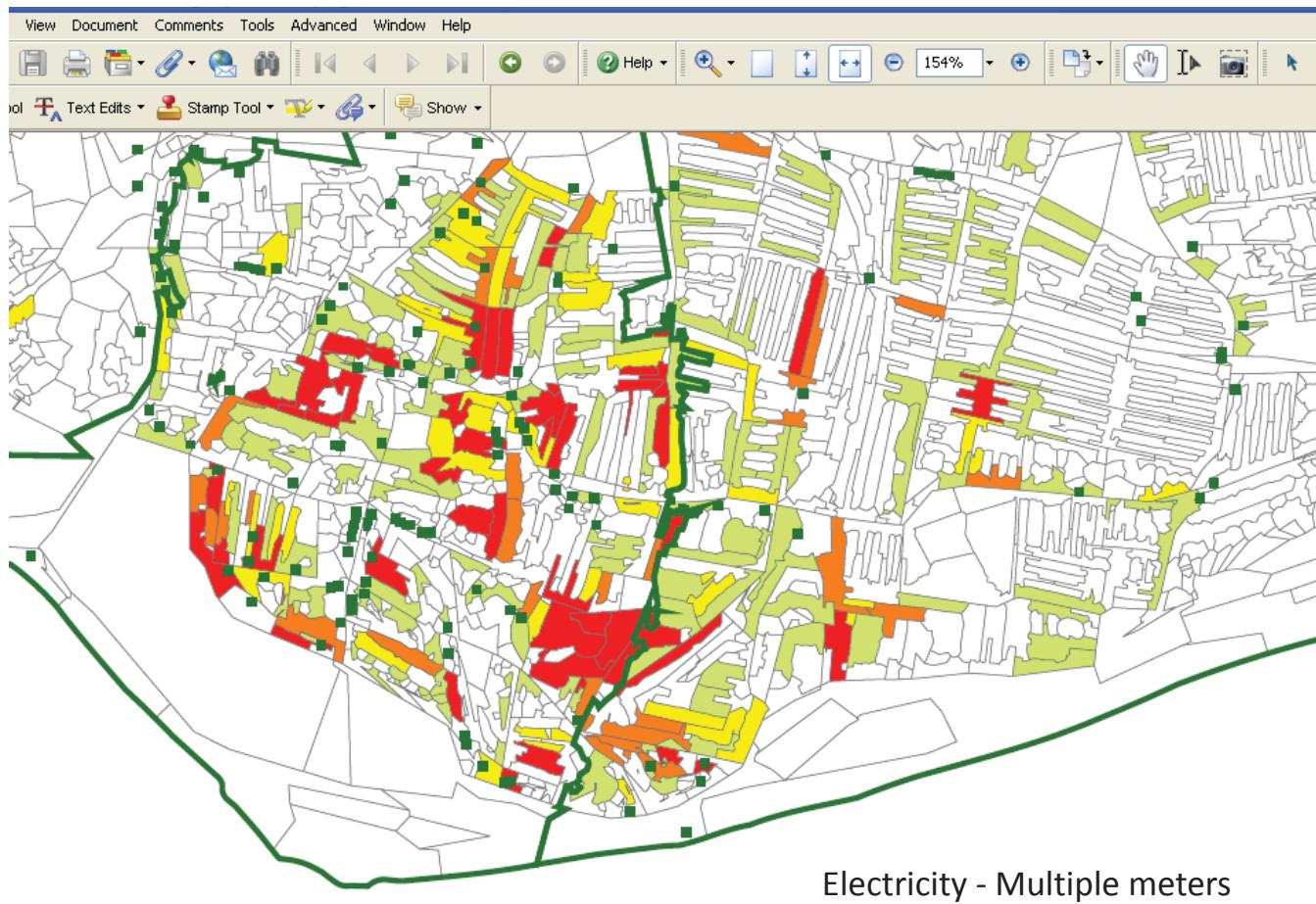


© Crown Copyright Ordnance Survey 10019153

Where to check ??

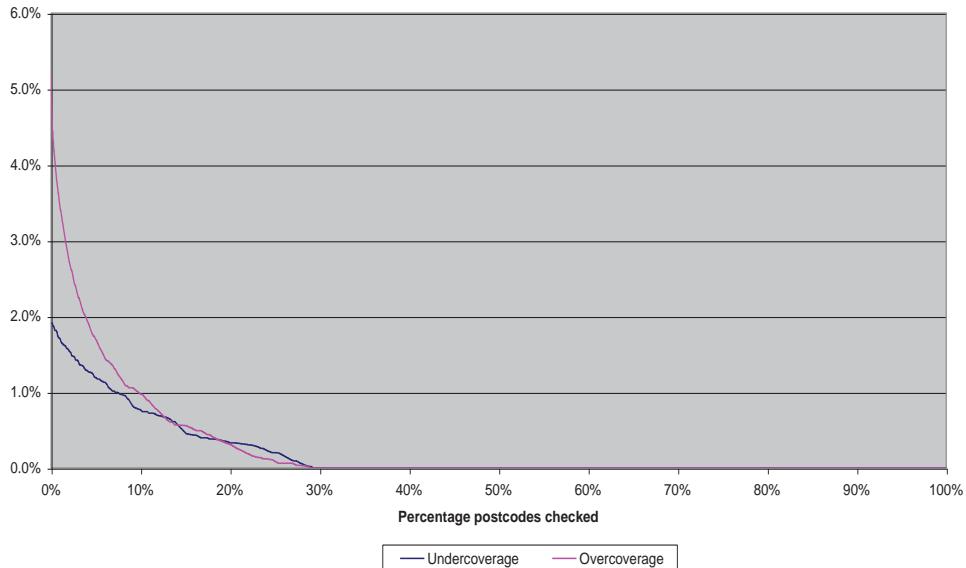


© Crown Copyright Ordnance Survey 10019153



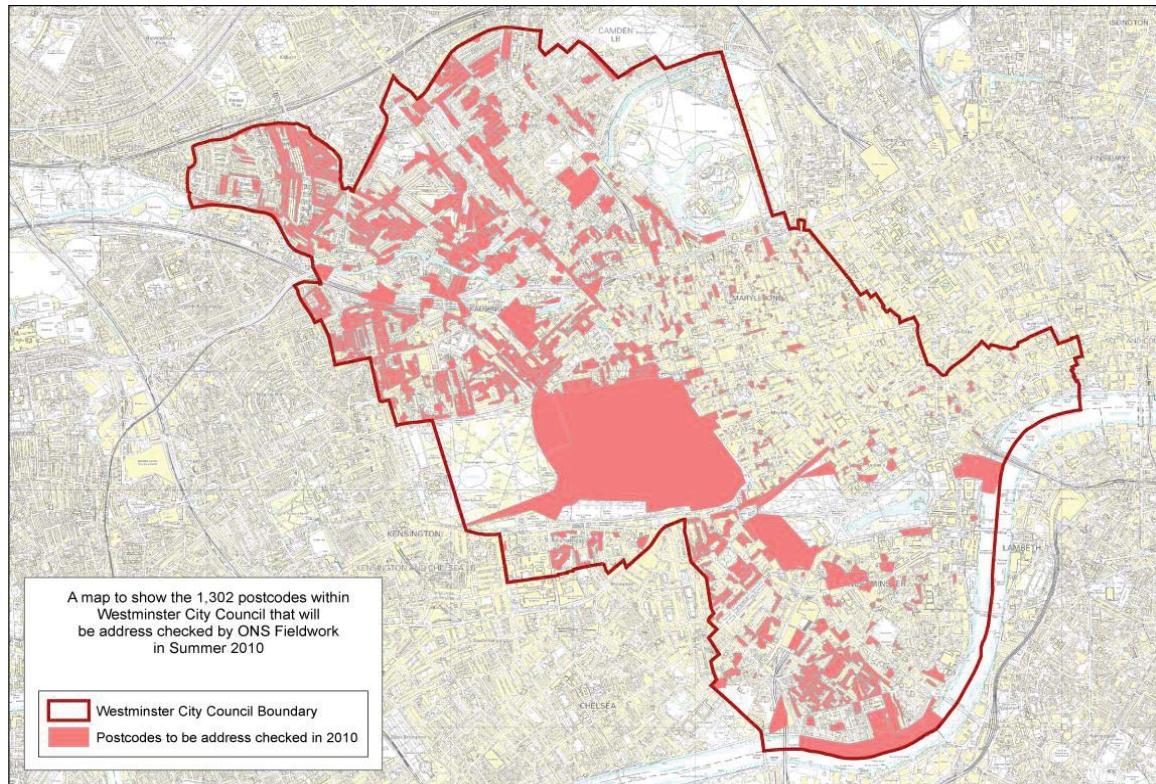
How to check ?? - Postcodes

Undercoverage and overcoverage by percentage of postcodes checked
Under coverage relates to new addresses not picked up by COUs
Newham, Anglesey and Lancaster - Rehearsal 2009

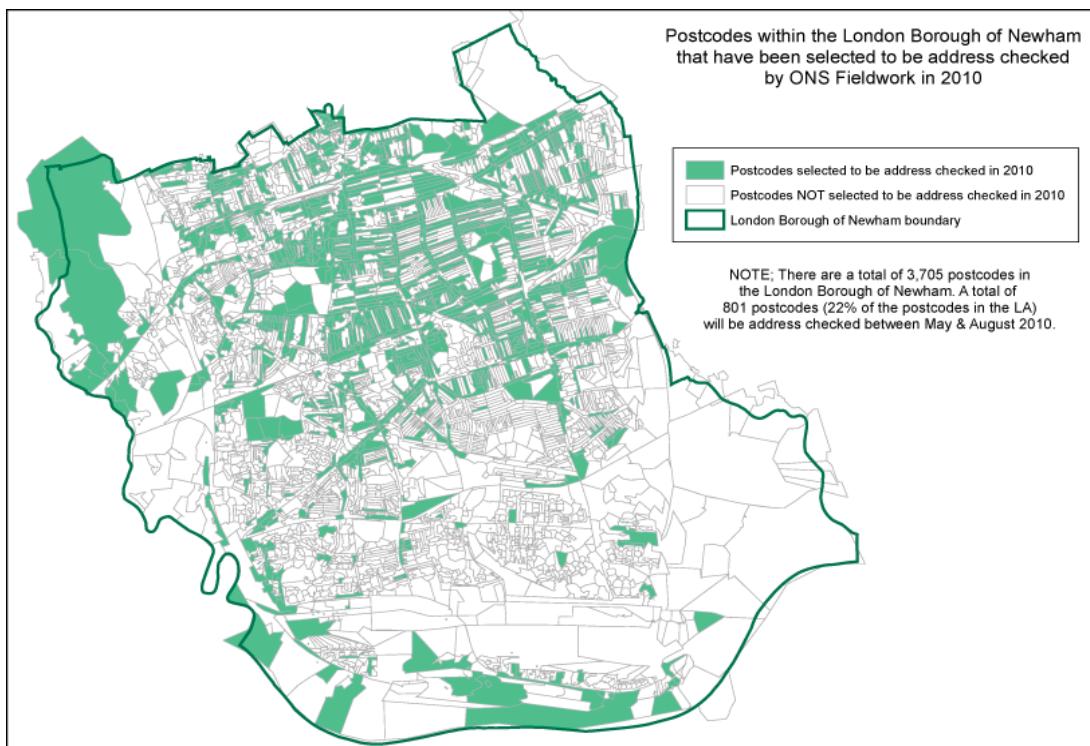


Criteria for checking

- Anomalies between national lists (10%)
 - proxy for address complexity
- Multiple meters / Multiple names from electoral role within addresses (4%)
 - national proxy for complex structures
- +- Stratified random sample (1%)



© Crown Copyright Ordnance Survey 10019153



Intelligent Addressing vs. ONS Address Check

Non-Residential vs. Residential

New builds, Plots & Flats above shops

Amici 3b West End, Peterborough, PE6 9LS

Recommendation: send a questionnaire



Royal Mail vs. ONS Address Check

Non-Residential vs. Residential

Flats above shops, Complex addresses

221 Cannock Road, Cannock, WS11 5DD

Recommendation: send a questionnaire



Royal Mail vs. ONS Address Check
Non-Residential vs. Residential
Flats above shops, Complex addresses

221 Cannock Road, Cannock, WS11 5DD
Recommendation: send a questionnaire



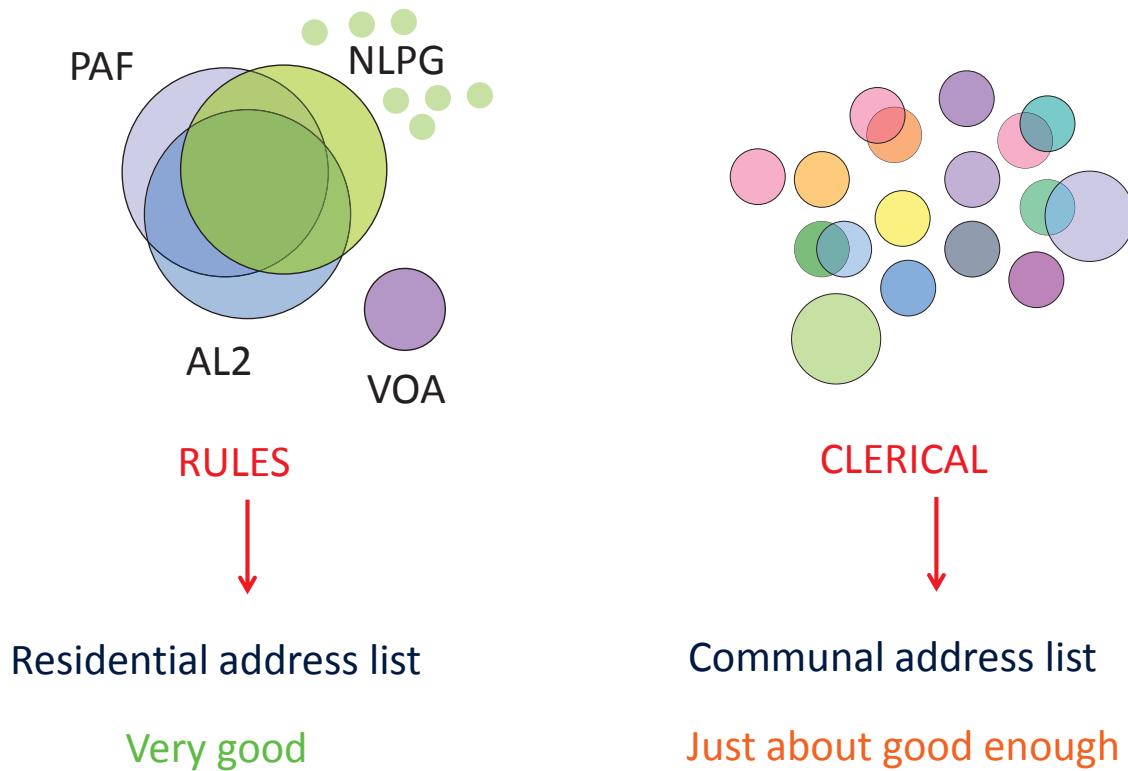
Some observations on quality and maintenance
- local input helps but

Maintenance & quality

- Maintenance and change is key
 - 90K changes monthly – national role
- Local intelligence hugely powerful
 - spreads the load
 - draws in intelligence you can't get at the centre
 - gains local buy-in
 - **but** issues with consistency ? / funding ? / bias ?
 - consistency only as good as your weakest link
- Local input most successful when tied to a local benefit
 - tie to electoral review / funding etc?

Where we are heading – Census 2021 & beyond

Address Register – Census 2011



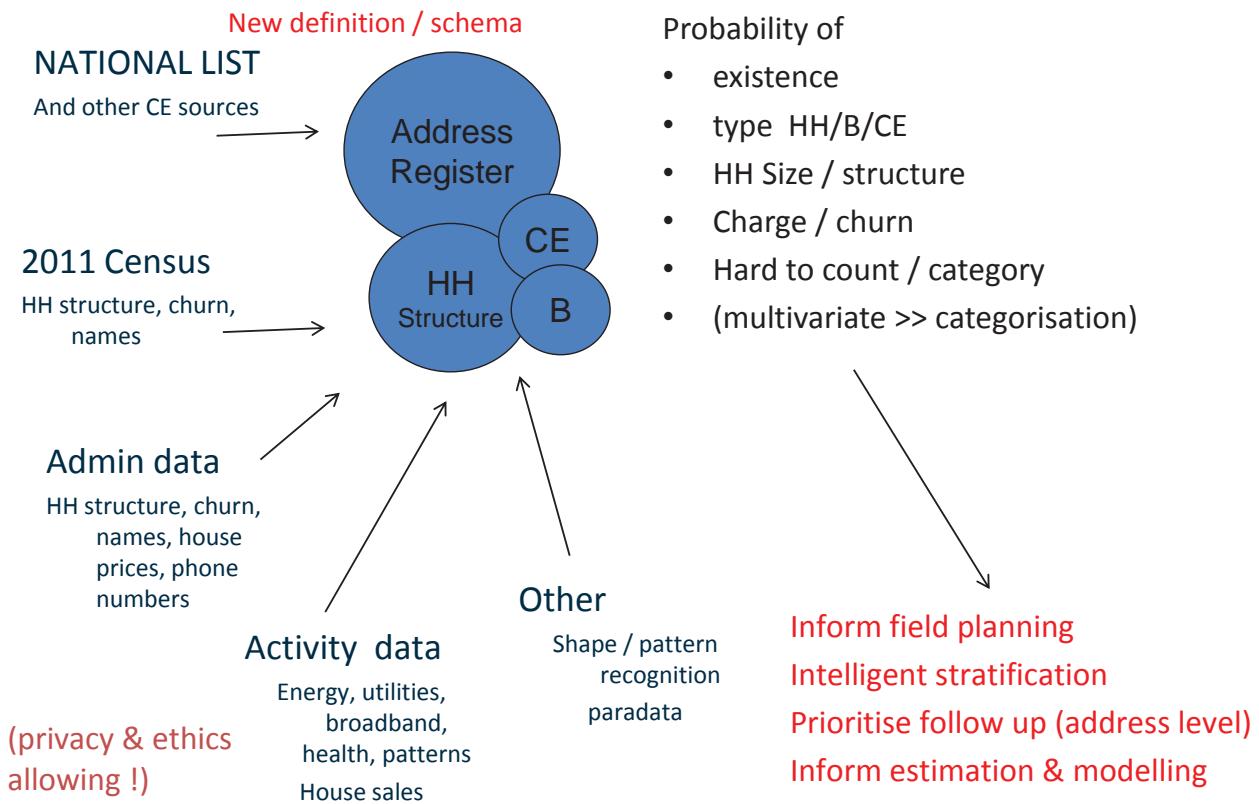
Address Frame – future plans ?

- Maximise the use of existing datasets (National Address Gazetteer)
- A single integrated frame - residential, communal, business
- Starting much earlier
- Even more focus on communal establishments
- Push use across data suppliers – coding & open data
- AR as more than a mailing list; also a **probabilistic frame** for linking other sources

An integrated address frame

12 High St	R					Etc
13 High St			CE			CE Id
14 High St	R					
15 High St	R	B	CE	Link to Business Register		CE Id
16 High St		B		Link to Business Register		
17 High St	R					
21A High St	R					
21B High St	R					
21/1 High St	R					
21/2 High St	R					

AR as a probabilistic frame



... and ?? ...

- API linking directly to mapping – for field / public QA
- Self linking to address-list ??? map ??
- Wiki / crowd sourcing for CEs etc ?
- Opendata – address list – CEs – national list
- Phones, email addresses, identity assurance ??

Closing thoughts

- Having a good base helps but there's always error
- Don't blame error in the address register – blame yourself for not having planned how to deal with it
- Local input helps – but it's also risky
- Target on the right things – make an informed decision on how much and what to target
- Think about admin data, 'signs of life' etc to inform the frame (and operations)