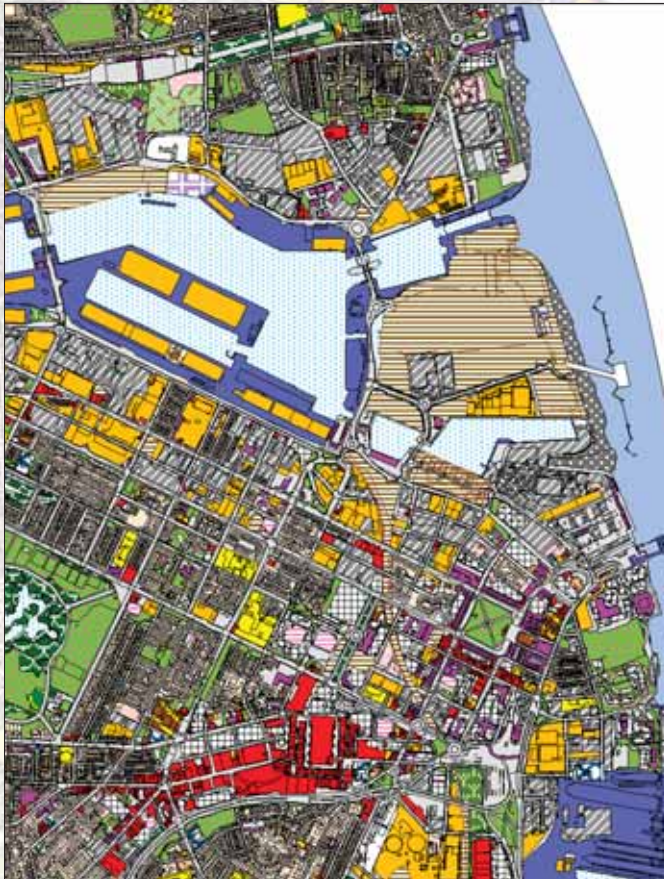


Wirral – A Borough Revealed

By Joe Bickerton, GIS Mapping and Housing Intelligence Officer



Land Use definitions of the Tranmere & Birkenhead area of the housing market renewal zone within Wirral.

In 2004, Merseyside, along with eight other inner-city areas of England, was identified as being in need of Housing Market Intervention with levels of abandonment, vacancies, low house prices and high crime taking their toll. As a GIS Mapping & Housing Intelligence Officer within Wirral Metropolitan Borough Council, one of the three boroughs that make up the Merseyside Pathfinder New Heartlands, Joe Bickerton explains how Land Use data are being used by the team and how they have enabled greater understanding of how GIS is helping shape neighbourhoods.

With the focus firmly upon Wirral's housing market now that it is part of one of the nine UK Housing Market Renewal Initiative Pathfinders, it has become a vital element of the Council's Strategy & Regeneration Team to monitor local housing markets. This is carried out through the Wirral Area Mapping Project (WAMP) that gathers a range of housing-related data to inform local delivery of both strategies & planning.

Following the creation of the Jill Dando Institute of Crime Science back in 2001, the use and awareness of GIS tools in delivering accurate locational intelligence took on a new dynamic, moving away from the traditional 'pin-in-the-wall' approach whereby planning offices would have large maps with neatly drawn fluorescent zones highlighted – to one where a GIS could not only do all this for you, but also to a level where it would become a core function within most strategic divisions of many businesses and government offices. This was also aided by the requirement to implement e-government in time for 2005, providing an excellent opportunity for fresh geographical graduates like myself to fill new roles within local government!

The integration of location analysis into daily operations helps not only the Strategy & Regeneration Team, but also other strategic partners such as Social Landlords and Community Safety to achieve significant analytical and operational advantage. Today, locational intelligence is empowering even non-GIS officers to gain the advantage of using spatial data to support more everyday decisions.

Location data collected through the mapping project in order to study neighbourhood change includes:

- Location & duration of vacant housing
- Monthly house price sales
- Benefit claimants
- Crime/Fire Service & Ambulance incident location
- Demolitions & acquisitions
- Tenure
- Educational attainment
- Census statistics
- Stock ownership

Using this spatial data in order to respond to the needs of local communities and deliver its strategic housing function, Wirral must have a sound understanding and knowledge of its local housing markets and its interaction with the wider sub-region.

75% of all Local Government information is geographically referenced (Schmid).

This information, along with the Land Use data, is assisting us to effectively deliver our local strategic priorities and meet our objectives for transforming local housing markets in Wirral through investment programmes such as Housing Market Renewal Initiative.

As an important component of Wirral's Mapping Project, GIS is more than just a tool to create hotspot plots and print-outs of Ordnance Survey maps for the office wall as existing Land Use subscribers will be aware. It enables many different layers of area-based data (e.g. population, schools, deprivation, housing, train stations) to be overlaid with other statistical data.

Despite the technology available, successful use of GIS still depends on technical choices and on the ability, capacity, and willingness of an organisation to absorb and use new forms and quantities of information (Ventura, 1995).

Land Use Data

If we can understand more about why housing markets in parts of the Wirral suffer more than others, why certain areas attract more crime, low attainment or vacancy levels, and why certain places or people are more vulnerable than others, then we can begin to more effectively understand why market failure occurs, become more intelligent in our strategies, and design our interventions and targeting to be more successful.

Therefore, in 2004, Wirral in partnership with the other Merseyside Pathfinder authorities, purchased Land Use and Building Class data as they were viewed as useful in studying the urban form prior to neighbourhood interventions resulting from, amongst other things, Housing Market Renewal. The core idea behind the data and the maintenance programme was to track morphology change over time as large areas of residential zones beyond repair were cleared and relocated, along with businesses and other non-residential buildings. Although Ordnance Survey's Mastermap is an excellent corporate mapping resource for viewing change, the detail of having accurate Land Use data, identified by unique colour-coded schemes, enables both GIS analysis and planners to view and report on change in a visual, chronological format.

As part of the internal mapping project, Wirral Metropolitan Borough Council has been using the Land Use data to not only identify areas of use within intervention areas, but also through identifying areas of vacant brownfield land that can be included in redevelopment strategies, especially within Housing Market Renewal Areas. Within Inner Wirral, one of the potential reasons for housing market decline is the wider influences such as environmental crime (graffiti, fly-tipping, abandoned vehicles) which can be of detriment to a homebuyer's decision, yet other factors such as off-road parking and accessibility to local services can attract investment. Therefore, Land Use data becomes of particular benefit in identifying land use within potential development zones, helping also to direct strategy in targeting areas that may suffer from potential failure or success by determining the use of the surrounding area (e.g. car parking availability or wasteground).

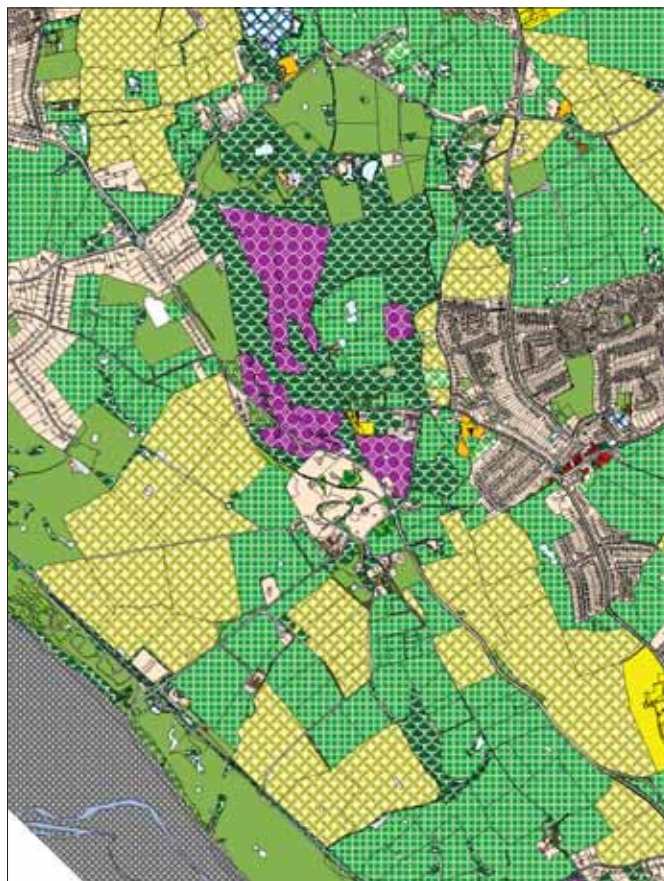
Although Wirral is currently unique in terms of having a visual split between east and west, it is important to monitor the borough as a whole as despite an intense urban renaissance occurring on the industrialised east coast, the geological landform on the west of the borough is under constant threat from erosion where it meets the River Dee. By having Land Use data, planners can potentially use this to differentiate between not only the built environment but also the arable use of greenspace that may not be identified on Ordnance Survey (OS) Mastermap. Having this knowledge will empower officers to understand rural change, albeit slower than the urban environment, but still it may be argued, just as important.

Land Use data is also particularly useful in community consultation as the clear mapping can be easily interpreted by residents involved in change along with councillors and other chief-officers. By having the freedom to adjust the graphics to portray areas of particular interest along with the flexibility of using each category as a GIS table, therefore being able to click various layers on or off, the Land Use data is of great use in both meetings and live presentations.

Moving forward, the success and sustainability of both Wirral's old & new housing markets is reliant upon accurate location intelligence, through GIS & high quality data. Examples of such include house price data, tenure and other socio-economic statistics. Alongside this, it is crucial that the current partnership approach is managed well to ensure that the disparity of Wirral's housing market decreases. Local interventions from case studies witnessing success will be used to illustrate how this dual market is being tracked and evaluated and highlight how fresh techniques are applied to build a focused evidence base to inform strategic planning, of which Land Use data is a supporting feature. Wirral eagerly awaits aerial imagery that will provide a greater understanding of the Borough and to strengthen the background to the spatial data held as part of the mapping project.

The benefits of additional detailed, local level information coming 'on-stream' cannot be underestimated. Profiles of focus areas within Inner Wirral are becoming more sophisticated as a result of enhanced intelligence through the detail included within the spatial databases, which in turn allows for greater accuracy in the planning and implementation of interventions. By the same token, the monitoring and evaluation of the housing market in the medium and longer term, following the introduction of programmes and interventions, can now also be undertaken with a superior degree of confidence and precision thanks to the range of available land use categories.

*Stephen J. Ventura; Public Administration Review, Vol. 55, 1995
Dr Gesche Schmid, Medway Council*



Land Use data of Thurstaston & Caldy on the River Dee coast, showing the definition between pasture and crop types that inform town & country planners.



Closer detail of Birkenhead town centre highlighting the various building uses around the town.