

Wirral Housing Need Forecasts 2014 – 2032

& Green Belt Land Requirements: Fake News

1. Summary

The government has told Wirral Council that they must build **800** homes per annum or 12,000 in total over the period 2014 to 2032. Despite having granted planning permission already for ~ 16,000 dwellings, mainly on brown field sites, the Council have decided to seek out landowners and developers ready to 'release' Green Belt land for housing development. This has led to 50 sites being identified (Figure 4). This land amounts to ~8 square miles of Wirral countryside. Both government and council have ignored the existing ~6,000 empty properties on the Wirral. The government and the 'land bankers' such as Peel Holdings have been blamed by the Council for this catastrophic situation. However the Council commissioned Housing Study of 2016 found a housing requirement of 835 to 1,235 units per annum. In fact the same complex methodology underlies both housing estimates. It is at heart still based on guesswork and produces a remarkably wide range of forecasts. The politicians can find almost any number that suits them politically. In the case of the Council this was a desire to promote their miraculous economic growth policies for Wirral.

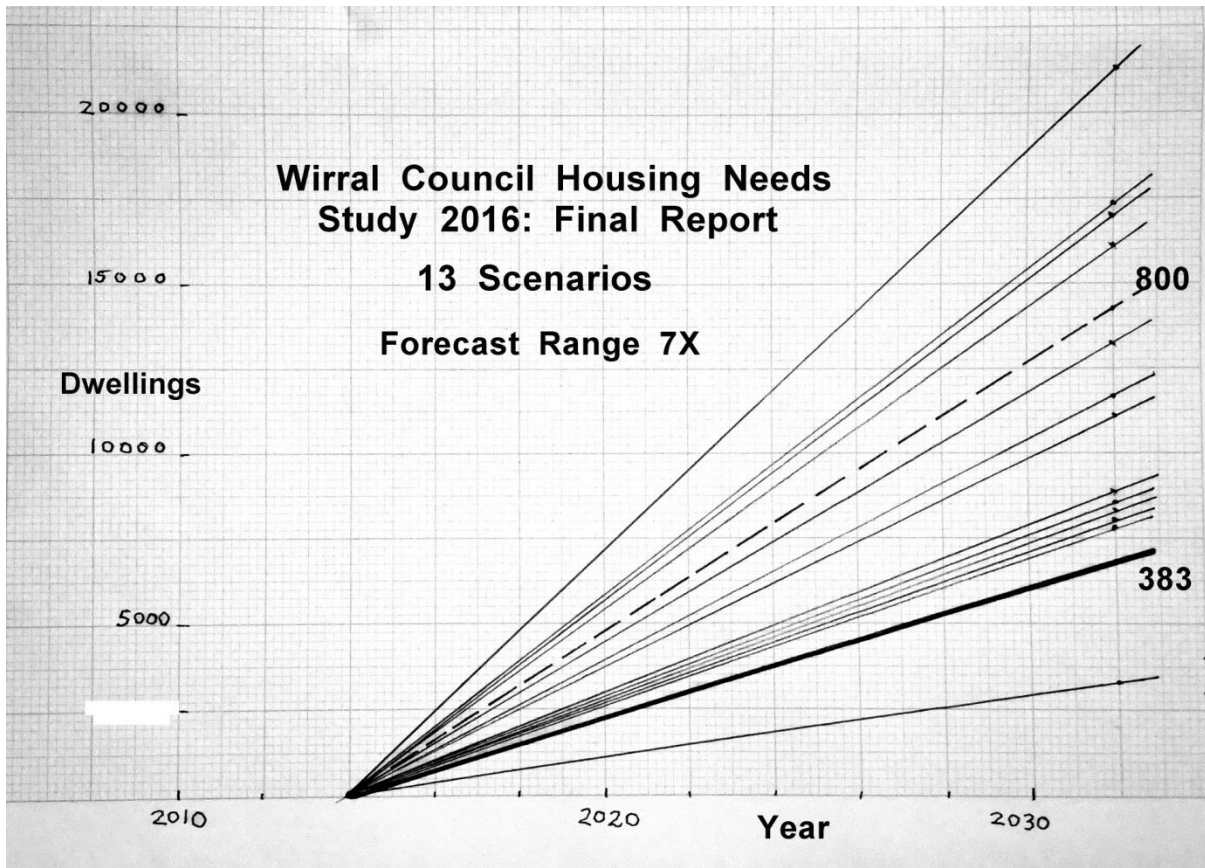
Given the uncertainties a better approach is to consider **actual** recent and longer term population and household growth rates and growth rate ranges and base forecasts on these with possible adjustments for general economic growth prospects e.g Brexit effects. We do that below and find housing build rates of **200 to 300 per annum, not 800**. At this level the amount of Green Belt needed (ignoring the brown belt land available) would be only ~6% of the land targeted by the Council for development release. At 800 homes per annum the fraction of Green Belt needed would only be ~17% of the Council plan. **Wirral residents are being fed highly distressing fake news and alternative facts by the Council**. We should all be asking why? Quo bono? Who benefits? It is certainly not Wirral residents.

2. The Wirral SHMA and Housing Needs Study 2016

This study was commissioned by Wirral Council and completed by the Nathan Litchfield Consultancy. It is 263 pages long. It uses approved data from government sources and approved analysis methods commonly used by other local authorities. It freely references work by other groups which is commendable. It fully reports its assumptions and considers over a dozen alternative scenarios. It is a comprehensive, workman-like job. Sadly government departments and councils do not always fully report or understand what their consultants tell them about the uncertainties in modelling and forecasting. Quite often the politician can take almost any number that suits him from such a report. Let's start with the report output and the 13 scenarios shown in Figure 1.

We see that the forecast of houses needed by 2032 varies from 3,400 to 22,200 (the most extreme scenario of building 46,530 'affordable' houses has not been considered here as the report drops it). This range covers a factor of 6.6 X. The dotted line is the **800** houses per annum target imposed by government (but also compatible with Litchfield's final proposal to the council). The thick line shows the result using the actual Wirral annual delivery of **383** houses per annum in the recent decade.

FIGURE 1

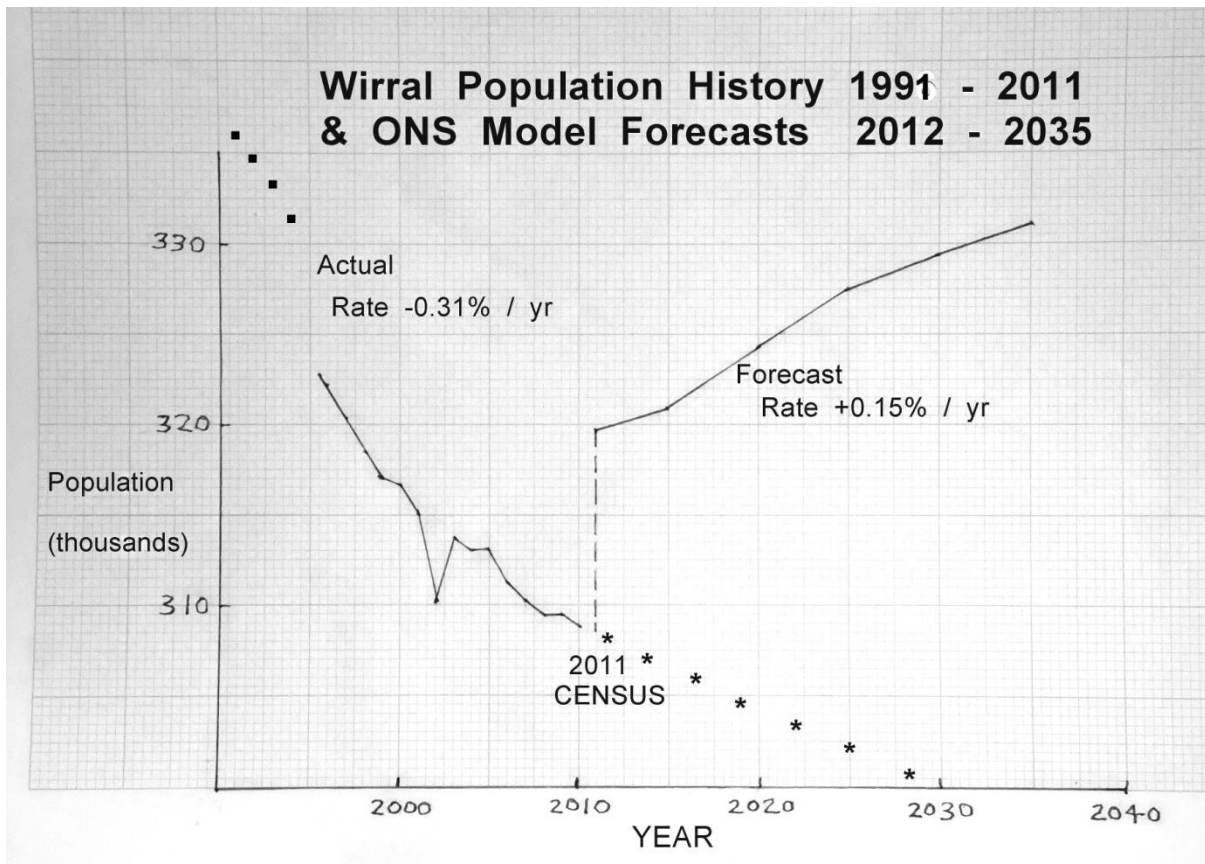


The 383 figure reflects *recent reality* in terms of Wirral demographics, economic migration and the state of the house building market. **If forecasters, councils and governments insist on very different numbers for housing growth they should be required to show cause...** particularly if the forecast impacts negatively on the quality of life of large numbers of Wirral residents and threatens the loss of irreplaceable high quality farm land and core biodiversity refuges in the Green Belt. Despite the fancy talk of 'evidence based' planning by governments the fact is much of what passes for analysis is guess work often based on unstable base data as we will see. Forecasts are often politics based not evidence based.

3. Wirral Population & Household Numbers History

The starting point of the 'official' methodologies used for housing needs forecasting are the future demographics of the area population. If these are wrong then all that follows in terms of 'economic policy uplifts' and the rest, is pointless. The official government (ONS) historic data on Wirral population changes from 1990 onwards has been remarkably unstable and subject to regular 'adjustments'. This does not give confidence in the official data nor in forecasts based on it even before imaginative economic scenarios are appended to the basic demographics. Figure 2 shows the population history from 1991 to 2011 before 'adjustments' were made to make some consistent sense of the data. In 1990 the population was about 336,000. By 2010 population had apparently fallen to around 309,000 a decline of ~0.45 % per annum overall. Decline slowed to -0.31 % after 2005. By contrast the ONS forecasts for 2012 to 2035 projected a growth of +0.15% per annum.

FIGURE 2



At the 2011 census the embarrassing historical numbers were 'uplifted' to reconcile with those of the census. The varying ONS forecasts from various, almost successive years are concerning. Looking at 2008 base data is interesting. 2008 to 2012 we are told was a period of 'national recession and economic stagnation'. On that basis population was projected to fall long term! Later the 2010 base *rate* was adjusted to correct for the census gap. By 2012 the base *numbers* were adjusted upwards but the end point in 2032 was the same! These are a remarkable set of estimates and forecasts for all the wrong reasons. Here are the various 'adjustments' made after 2010.

	Start year	Population	2032 Population
ONS 2008 base	2008	309,000	304,000
ONS 2010 base	2010	310,000	329,000
ONS 2012 base	2012	320,000	330,000

The reader should note the apparent sensitivity of the Wirral population to economic conditions. Current UK growth is still very modest. Borrowing and debt levels are very high. Interest rates are very low but beginning to increase. A possibly hard Brexit will further dampen growth as the government acknowledges. Please note: *none of this is built into the current forecasts of Wirral housing demand* and the forecasts used for job growth and so on in the 2016 report were already optimistic. They assume that Wirral Council's 'growth stimulation' policies will work. History from 1990 suggests otherwise.

Nevertheless the forecast is for a major turnaround in the 20 year decay of Wirral's population. Even if we accept this forecast (which will be challenged in section 4) note also that the population in 2032 (~330,000) has not yet recovered to the level of 1991 (~336,000). Nevertheless it seems we need to build an additional 800 houses per annum until 2032 to house a supposed additional ~10,000 people. By 2015 the government figures for Wirral had changed again (see below).

4. Forecasts of Population & Households to 2032

The core basis of the Wirral SHMA and Housing Needs Study 2016 are the local demographics. If these are wrongly forecast everything else falls. As we just saw the historical data is all over the place but we must try. Figure 3 shows the reconciled (final?) population history of Wirral and the supposed household numbers. We will work with these since the council and government do so. ONS Estimated Resident Population tables to mid-2016 tell us that the population in mid 2011 was 319,800 souls and in mid 2016 was 321,200 souls. This gives us a growth rate of **280** persons per annum.

Household numbers in 2011 were 141,000 and in mid 2014 142,400. Note that from 1991 to 2001 there was **no** growth in household numbers. So HH size in 2011 was 2.27, in 2014 2.255. Recently HH size has been falling at ~0.005 per annum. At that rate by 2032 HH size would have fallen to 2.17 persons. However ONS 'Families and Households 2017' shows that across England from 2013 to 2017 HH size stagnated. HH size change is related to increased life expectancy which has been increasing for many decades. However the ONS Human Mortality Database just published shows a massive drop in life expectancy growth rate (2006 / 2011 12.9 weeks per annum for women down to 1.2 weeks per annum in 2011 / 2016; 2006 /2011 17.3 weeks per annum for men down to 4.2 weeks per annum in 2011 / 2016). The decline may be related to austerity and reduced funding of social care, etc. We will look at two scenarios. First that HH size continues to decline to 2032, to **2.17** persons. Second, that HH size stagnates at **2.23** persons.

How will population develop? Let's look at actual overall trends for the recent decade and for the two latest census periods. The 2011 – 2016 growth rate we found was **280** persons per annum. The (reconciled) 2001 data puts population at ~316,000 and at 2016 as 321,200. The longer period growth rate was **347** persons per annum. We see that population growth has decelerated in recent years reflecting poor economic conditions.

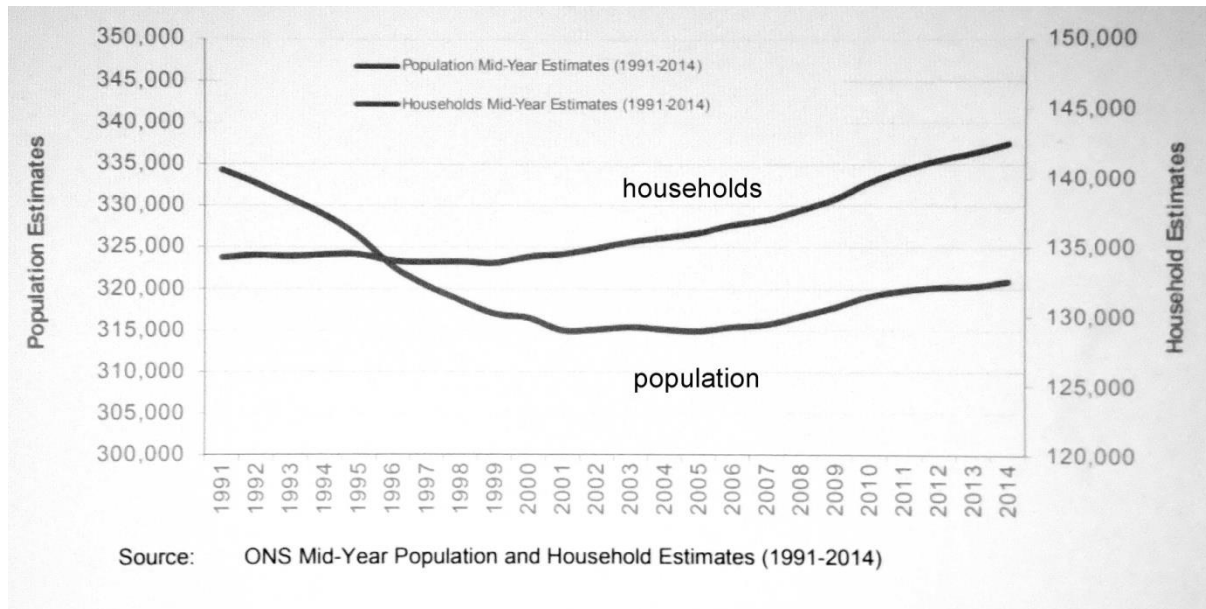
Given that the government expects somewhat lower economic growth for some years related to Brexit we take the lower growth rate. Population growth 2014 to 2032 would then be $18 \times 280 = 5040$ persons. Population in 2014 was 321,200. Population in 2032 would be 326,240. Using stagnated HH size at 2.23 then gives us 146,296 HH versus 142,400 in 2014. Increase in HH is **3895** in total or **216.4** houses per annum. If HH size drops to 2.17, which seems unlikely, this would give us a need for **441** houses per annum. Note that the mean of 329 compares well with the actual historic delivered rate of 383 reported in the Wirral SHMA Study.

These results follow from a simple model based on **actual trends** and experienced trend ranges in Wirral population and households plus a few assumptions about general economic prospects over the next decade. Accuracy cannot be claimed but the housing requirement is only 27% to (an unlikely) 55% of the official target. The official housing forecast models are

far more detailed, dissecting out local demographics and then adding back in council growth policies, net migration, job growth and housing market factors. But as we saw in Figure 1 this leads us to a wide range of complex but *guesswork based scenarios* giving a very wide range of numerical forecasts. You might well think:

'never mind the quality feel the width' ...but I could not possibly comment.

FIGURE 3 Wirral Population & HH ONS Estimates 2015



Is this perhaps unfair? Let's take a key example from the Wirral SHMA & Housing Need Study 2016. Page 137 presents Table 8.2 which lists their key modelling assumptions for the growth forecasts. It starts with the basic population and two estimates.

'2012 based SNPP 10,140 population growth 2014 - 2032.'

'10 year long term Migration Scenario 66 population growth.'

'Higher of the 2 approaches represents the population for the demographic starting point'.

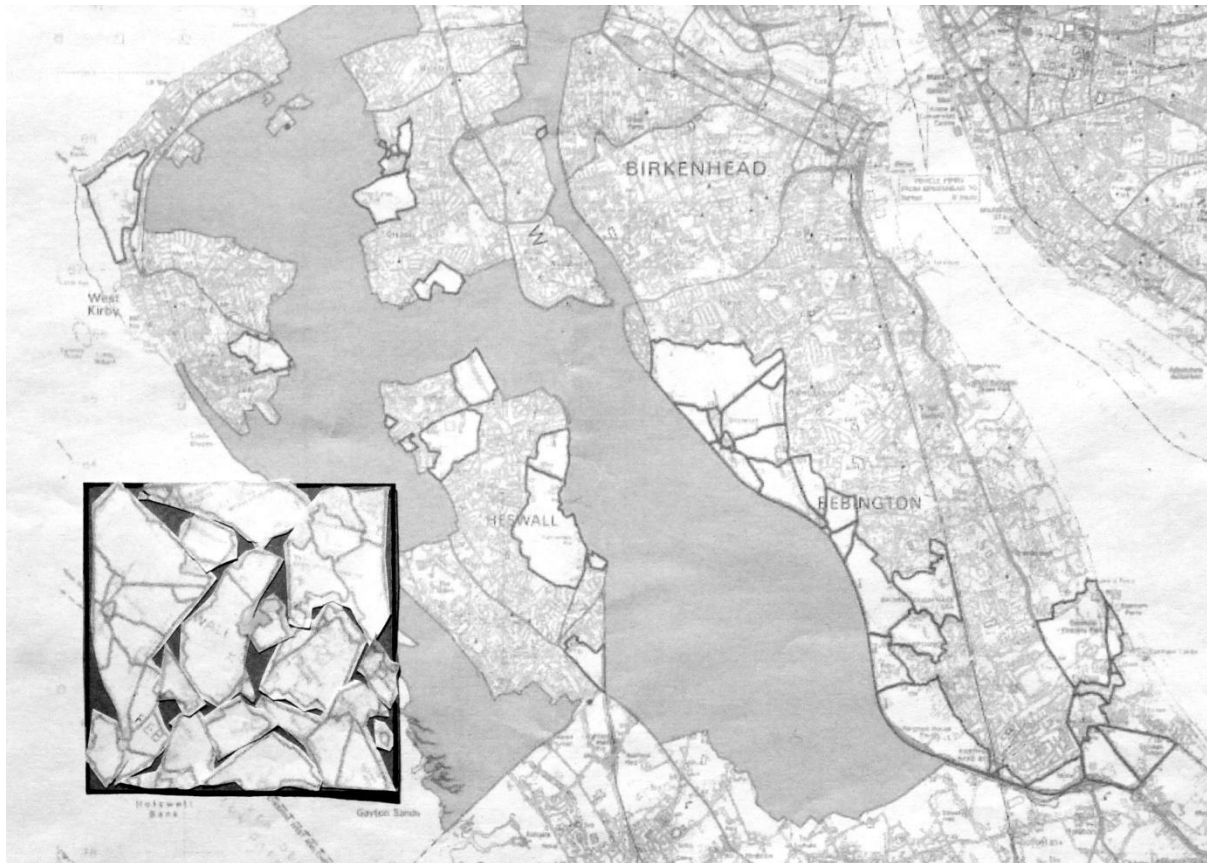
Funnily enough if we take the scenarios mean we get 5103 compared with our 5040... but the low growth scenario is ignored. They use the 10,140 growth figure which it is said equates to 11,830 new houses. Various 'uplift' factors are then applied giving a **757** houses per annum requirement which is further 'uplifted' for Council growth plans, etc, giving 'Fully Objectively Assessed Needs' of 875 to 1233 houses per annum...higher than the 'wicked' government imposed 800 target of 2018.

5. Green Belt Land Requirements

The Strategic Land Availability Study is a necessary part of the preparation of the Local Plan and part of this is a Review of Green Belt land. In July 2018 Wirral Council published a map showing 50 green belt sites across Wirral said to be available for 'release' for housing development according to the landowners / developers. The interesting question is how does this area of land relate to the 'official' housing needs target which must be met by the Council i.e **12,000** new houses by 3032.

We now look at the land area involved and typical housing densities to answer this question. Using the NLS online measurement tools and 25 inch OS maps the total land area involved is ~7.6 square miles and **~4864 acres**. Figure 4 shows the map of intended GB 'release' sites. The square of 3 miles X 3 miles shows the rearranged green belt sites which fill it well. Imagine a new urban township 3 miles X 3 miles square on the Wirral.

FIGURE 4 Intended Green Belt Council Release Sites



The DCLG Land Use Statistics (England) 2010 provides actual housing densities by region. For the NW densities have ranged from 22 to 49 dwellings per hectare in recent years with a tendency to increase. The mean is 36 dph or **14.57 dwellings per acre**. At this density the GB release plan land could support $14.57 \times 4864 =$ **70,870 houses**.

The government / council required total is **12,000 houses**. So the GB land proposed for development 'release' by the council is **5.9 X** more than the land needed to meet the target (assuming that *no* houses are built on brown field land). **Only 17% of that Green Belt land would be required**. Readers might consider this a little strange. Is the Wirral Council incapable of doing a few simple calculations to support their housing planning strategy? Surely they employ professional planning officers at considerable expense to us?

I suggest that the GB land overkill is part of a deliberate political strategy. First, announce that a huge area of Green Belt is needed to meet the 'government's housing targets'. Second, encourage residents to 'complain' through local Labour Party organised resident meetings and a hysterical press campaign: those to blame being the Conservative government for trying to 'subvert local democracy' and Peel Holdings for 'land banking'. Third, hold the official Consultation on the plans in September 2018.

Fourth, in December 2018 after the review, announce that the Council has listened carefully to residents' concerns and thanks to the Council's heroic efforts **83%** of the GB sites on the release plan have been 'saved'. Fifth, win more votes in the next election.

However the above calculations start from the official housing needs estimate of $800 \times 15 = 12,000$. We have shown that this is a very unrealistic target taking into account *actual* Wirral history, population numbers, household numbers, lack of economic growth prospects and the strong slowdown in life expectancy improvement. A more likely housing requirement over the plan period is $216.4 \times 18 = 3895$. **If we use this number the fraction of GB land on the 'release' plan actually required would be 5.4%.**

Note also that the Council has now identified 91 brown field sites where 2,400 houses could be built. But this is 62% of our estimated 3895 requirement. **If these sites are used the Green Belt needed would be just 2% of the proposed Council 'release' plan.**

Nevertheless *somebody is going to draw the short straw* and lose their adjacent Green Belt. After all there is much more money to be made by not bothering with the large area of Brown Belt land available on Wirral which costs more to develop. The developers make more profit from Green Belt. The Council gets higher rates from the Green Belt luxury houses they build. Very few 'affordable' houses will be built because of the 'viability' test loophole. Surely Wirral residents are being badly misled and treated with contempt by those who were elected to protect their interests... to the benefit of land speculators and the politicians. Politicians come and go but once Green Belt land is gone it is gone forever.

Enough is enough. It is time to fight back.

Professor (retired) D P Gregg: Background in mathematical modelling, statistics and operational research. For fifteen years served as visiting professor with a leading northern university. Collaborated with several universities in Europe and the USA and led EU funded industrial projects with other large companies. For several decades led a forecasting research / decision science, internal consultancy group for a large, well known multinational company. Advised senior management and the board on tactical and strategic business planning.