

Summary of key points

The proposed section 3.14 contains a new provision never previously in the CDP, i.e. a restriction on housing density in individual 1 square kilometer areas to between 15-25 houses per km².

The proposed section 3.14 requires **extensive review** since;

- It is excessively restrictive, and **would be likely to result in almost 1/3rd of the land area of Kildare being barred from further development** (see details below of how we arrived at this estimate – 47,000 Hectares or 28% of land area)
- The proposed section is **not “evidence based”** since it does not include or make reference to any published data on existing densities per km² in Kildare
- The proposed section **conflicts with the stated government policy in “Our Rural Future”** that “Catering for this population growth in rural areas **will require** the development of housing in our towns, villages and peri-urban areas” – in effect it **will prevent development in peri-urban areas**
- The proposed exclusion of new housing in existing moderate density areas will result in applicants seeking to develop sites in more remote areas, **resulting in a more spread and diffuse pattern of building** – the opposite of what is recommended by authorities.
- The restriction on density would most likely result in the **number of houses** allowed in Rural Areas over the 5 years of the CDP **not reaching the target** of 732 set in Table 2.8 of the Draft CDP
- The proposed section 3.14 makes **no reference to the Designated Rural Nodes**, nor to **existing traditional crossroads clusters**. If the density criteria of 3.14 were to be applied they would prevent any development in such areas.
- The section/appendix contains several ambiguities and inconsistencies

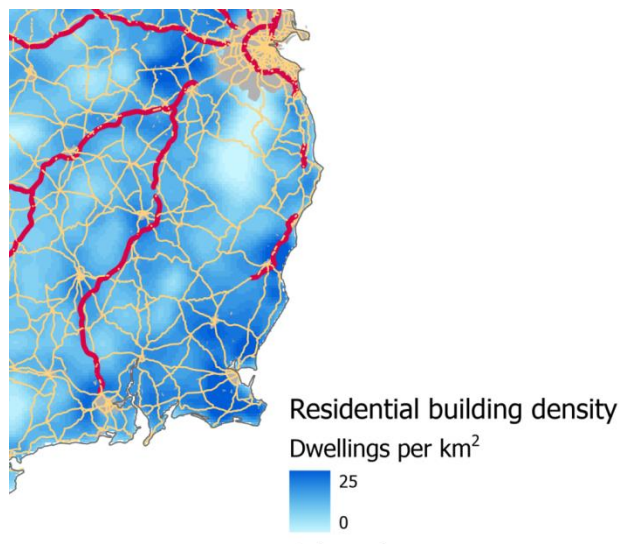
1. Review of available statistical data

As noted above, the Draft CDP does not include or refer to any published statistical data on a per km squared basis. App.10 of Draft CDP is a report by AIRO (Maynooth University), but this has no relevance to the issue of housing density, and indeed the word “density” does not appear in it. The CDP 2017-2023 included a report by AIRO entitled “Analysis of Rural Housing in Kildare”. While this addressed the issue of housing density, the only measure given of density was the number of houses per Electoral District, the no. of houses per ED has no bearing on the no. of houses in a single 1 km squared area.

Neither have we been able to find any relevant published report through internet searches. The only readily available published data on Density/km² we found is this Map-

[GIS Monthly Maps - Teagasc | Agriculture and Food Development Authority](#)

This map, published by Teagasc in August 2021 was widely reported in the media, but is easily mis-interpreted if the full notes by the authors are not read.
(overleaf)



This map gives the impression that nowhere in Ireland has a density higher than 25 per km² in rural areas. But this interpretation would be quite incorrect. It is important to understand the comments by the author of this map; “The analysis creates an interpolation over space, as such the densities do not show the total number of residential buildings in each square but a moving average across space.” This means that in effect densities are averaged over several 1km squares. So a dark pixel in a certain area in Kildare might in fact represent an area with 35 houses per sq.km. in one square and 15 per sq.km. in the adjoining square.

While I could not find any published Report, the raw data of houses per km squared from Census 2016 is readily available from the CSO from this website - [Central Statistics Office - Census 2016 Small Area Population Statistics \(arcgis.com\)](https://www.cso.ie/en/census2016/smallarea/populationstatistics/)

This data from the CSO is on a “Small Area” basis, this is the smallest area for which the CSO maintains statistics, and in Rural Areas, they range from c. 4km² to 18km². We downloaded the data for number of housing units per Small Area, and in order to limit it to one-off houses (excluding Villages and Settlements), we then filtered the data to include only Small Areas greater than 4km² in area and with densities less than 35 houses per km². (this simple method has only a small error compared to the figure arrived at by AIRO in the 2016 report – 18706 total versus 19371 per AIRO)

Rural Housing Density Kildare, Census 2016 - Factual data

Density/km ²	Number of Small Areas	House Units 2016	Total Area km ²	Average of Area
0-5	2	123	36	18.0
5-10	39	4075	511	13.1
10-15	56	6340	523	9.3
15-20	37	4562	263	7.1
20-25	15	1719	80	5.4
25-30	9	1208	45	5.0
30-35	5	679	22	4.3
Grand Total	163	18706	1480	9.1

87%

Total area of County Kildare km²

1695

To interpret the above factual data, we studied maps and aerial photos over quite a number of rural areas in Kildare. From aerial photos it is clear that in any Small Area with a density over 10/km² (which is 78% of rural houses in Kildare), it is not a homogenous spread of houses, but houses will usually be 20-35/km² in at least half the area, and under 10/km² in the rest. The individual 1km square areas which have densities less than 10/km² can usually be identified from the aerial photos as having clear reasons for low density; e.g. bogland, woodland, race courses, golf courses, large stud farms, prone to flooding, or in some cases, simply not accessed by public roads.

Estimated effect if proposed limit on density applied (assuming average limit of 20/km² applied)

Density band From above Table Density/km²	% of each small area permanently unavailable or unsuitable	Average area in each Small Area available for housing	Estimated existing housing density in available area	% of available area with density over 20/km ²	Area in km ² of available land "sterilised" if 20/km ² max rule applied
0-5	60%	7.2	8.5	25%	4
5-10	40%	7.9	13.3	35%	107
10-15	30%	6.5	17.3	50%	183
15-20	20%	5.7	21.7	50%	105
20-25	20%	4.3	26.7	50%	32
25-30	20%	4.0	33.9	75%	27
30-35	20%	3.4	39.4	75%	13
				Total	471
					28%
471 km ² approximately equals 47,000 Hectares or 116,000 acres, 28% of the total County land area					

While we believe the above analysis reflects in broad terms what the effect of the proposed limit on Rural Density to 15-25 houses/sq.km. would be, we do not claim to be experts in analysis of geographic information.

A more detailed study by experts ought to be done before introducing Rural Density guidelines.