

Annex B1: GIS Analysis, 1,077 vs 3,895 Households (1.5km Like-for-Like)

Source

NRTG GIS analysis, originally submitted to An Bord Pleanála as part of the December 2024 submission on the Draft Decision (ABP-314485-22). Revised February 2026 with updated methodology: a southbound turn has been added to the permitted NPR corridor to match the legacy south runway departure pattern. This revision makes the permitted-route baseline more generous (including approximately 50% of households that were already overflowed by the legacy 28L south runway departure), strengthening the comparison.

NOTE: The original GIS output maps and analysis document need to be copied from: 2024/ and 2024/QGIS Output/

Methodology

The analysis used QGIS to compare the number of residential properties within defined corridors of two routes, within the first 15km from the runway threshold:

1. The approved NPR (straight-ahead on runway heading 278 degrees for 5NM, plus a southbound turn matching the legacy south runway departure pattern)
2. The actual SID (30-degree turn at departure end, with 55% continuing to 86-degree deviation)

A corridor of 1.5km either side of the SID centreline was used to identify households directly overflowed. This corridor width mirrors the standard NPR swathe adopted by the UK Government in 1991 for assessing track-keeping performance at designated airports (UK DfT, Impact Assessment DfT00393, 2017, para 1.2). In addition, the town of Ashbourne (4,155 houses, approximately 16,000 residents) lies within 3km of the SID centreline tracks and experiences significant noise and overflight impacts, though it falls outside the 1.5km direct overflight corridor.

The February 2026 revision added the southbound turn to the permitted NPR corridor. This turn follows the same pattern as the legacy 28L (south runway) departure path. The effect is to increase the permitted-route baseline from 934 to 1,077 homes, because the southbound turn portion of the NPR corridor captures additional households. Approximately 50% of the 1,077 homes in the revised permitted NPR were already overflowed by the legacy south runway departure path and are therefore not newly affected by the north runway.

In established practice, a Noise Preferential Route is a route set by government to minimise the number of people overflowed, with SIDs designed to comply with it (UK DfT, Impact Assessment DfT00393, 2017, para 1.2). At Dublin, this hierarchy is inverted: AirNav designed the SID (verified for compliance with minimum safety standards only), and daa then branded whatever corridor it flies through "the NPR" or "the Environmental Corridor." The real NPR, as assessed in the 2007 EIS, contains 1,077 homes within the first 15km. The corridor daa calls "the NPR" contains 3,895. daa has unilaterally expanded its definition of the noise-preferred route by 360% and rebranded the unauthorized path as the approved one.

Results

Metric	Approved NPR	Actual SID	Change
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Households directly overflown (1.5km corridor, first 15km)	1,077	3,895	+262% (3.6x)
Estimated population directly overflown	fewer than 2,700	approximately 9,750	+360%
Ashbourne (within 3km of SID centreline)	not affected	4,155 households, approximately 16,000 residents	newly affected
Total affected (direct + Ashbourne)	1,077	8,050	newly affected

Beyond the 3,895 households directly overflown, the town of Ashbourne is particularly affected. Its 4,155 houses and approximately 16,000 residents lie within 3km of the SID centreline tracks, placing them under regular low-altitude overflight that was never assessed in the 2007 EIS. Ashbourne was not identified in any environmental assessment as falling within the impact zone of the approved route.

Including Ashbourne, 8,050 homes are affected by the actual departure routes (3,895 directly overflown within the 1.5km corridor plus 4,155 in Ashbourne within 3km of SID tracks), none of which were consulted or assessed.

Newly Affected Analysis

Approximately 50% of the 1,077 homes in the permitted NPR (within the first 15km) were already under the legacy south runway departure path. Had daa followed the permitted route, approximately 538 homes would have been newly affected by the north runway. Instead, the actual deviation newly affects 8,050 homes (3,895 directly overflown plus 4,155 in Ashbourne within 3km): 15 times the number that would have been newly affected under the permitted route, an increase of approximately 1,400%. None of these 8,050 homes were party to any decision-making process.

This 538 to 8,050 comparison is the cleanest measure of the environmental damage caused by the unauthorized route change, because it isolates the impact of daa's deviation from the EIS by stripping out legacy noise.

Excluded Legacy Areas

The following areas fall under legacy south runway departure paths and cannot be described as newly affected by the north runway. They are excluded from the newly-affected count in the interest of accuracy:

- Approximately 538 homes in the southern half of the permitted NPR corridor, already under the legacy 28L south runway departure path
- Dunboyne: 881 houses within 3km of the SID tracks, but under the legacy 28L departure path
- Tyrellstown and Hollywoodrath: 2,581 houses within 3km of the actual SID tracks, built within the past 15 years under the legacy south runway departure path

Combined, approximately 4,000 homes are excluded from the newly-affected count. This exclusion strengthens credibility (NRTG is not inflating numbers) while raising a land-use planning question about why thousands of houses were permitted under existing flight paths without adequate noise conditions. In the case of Tyrellstown and Hollywoodrath, 2,581 houses were permitted in an area under an active departure path with no noise insulation requirements, a separate failure of the land-use planning pillar of the Balanced Approach.

Key Finding

The deviation from the approved NPR has moved the environmental impact from predominantly agricultural land (as assessed in the 2007 EIS) to a densely populated residential area. The actual departure routes directly overfly 3,895 houses (360% of the permitted route) and bring the town of Ashbourne (4,155 houses, approximately 16,000 residents) within the impact zone. The communities in this area were never identified in any environmental impact assessment as being within the significant noise impact zone, were never consulted under any public participation process, and had no opportunity to make representations before the route change was implemented.

Aarhus Relevance

This quantitative analysis demonstrates the scale of the environmental impact that resulted from a decision taken without public participation. The number of households directly overflowed increased by 262%, from 1,077 to 3,895 (a ratio of 360%), and the town of Ashbourne (4,155 houses, approximately 16,000 residents) was brought within 3km of the SID tracks. Including Ashbourne, 8,050 homes are affected, none of which were party to any decision-making process.

Had daa followed the permitted route, approximately 538 homes would have been newly affected. The actual deviation newly affects 8,050 homes: 15 times the permitted number, an increase of approximately 1,400%. The GIS analysis was compiled by the affected community themselves, as no official body conducted this comparison.

Source Files for Full Maps

QGIS output: /mnt/c/Users/gobri/ownCloud/Aviation/28R/2024/QGIS Output/

ABP submission: /mnt/c/Users/gobri/ownCloud/Aviation/28R/2024/ABP RA/Submission on Draft Decision/