

ENVIRONMENT IMPACT ASSESSMENT TRAFFIC LIGHTS STUDY

**Study undertaken for the Department of Housing, Local Government and Heritage
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1 BACKGROUND

In 2011 the European Union (EU) adopted a consolidated version of the Environmental Impact Assessment (EIA) Directive¹, which had been amended a number of times since its introduction in 1985. The EIA Directive sets out a comprehensive framework for evaluating the environmental effects of proposed developments, providing for Environment Impact Assessments (EIAs) to be undertaken in designated cases, and the conditions, procedures, and considerations to be taken into account when undertaking such an assessment.

In 2014 the EU introduced Directive 2014/52/EU² which made amendments and additions to the 2011 Directive. The important addition from the point of view of this study was the provision which enabled Member States to set 'exclusion' thresholds below which there was no need for planning decision-making bodies to undertake a screening exercise³ to determine whether or not an Environmental Impact Assessment was required. Relevant texts from the Directive are set out below:

- (a) Recital 27 states *"The screening procedure should ensure that an environmental impact assessment is only required for projects likely to have significant effects on the environment."*;
- (b) Article 4(2) states *"Subject to Article 2(4), for projects listed in Annex II⁴, Member States shall determine whether the project shall be made subject to an assessment in accordance with Articles 5 to 10. Member States shall make that determination through (a) a case by case examination: or (b) thresholds or criteria set by the Member State."*;
- (c) Article 4(3) states *"Where a case-by-case examination is carried out or thresholds or criteria are set for the purpose of paragraph 2, the relevant selection criteria set out in Annex III shall be taken into account. **Member States may set thresholds or criteria to determine when projects need not undergo either the determination under paragraphs 4 and 5⁵ or an environmental impact assessment, and/or thresholds or criteria to determine when projects shall in any case be made subject to an environmental impact assessment without undergoing a determination set out under paragraphs 4 and 5.**"* [emphasis added]

The abovementioned recital and articles give Member States the opportunity to set thresholds below which there would in practice be no need for screening and the provision of an EIAR.⁶

The focus of this study is on two types of development (residential development and 'urban development') as indicated in clauses 10(b)(i) and 10(b)(iv) in Part 2 of Schedule 5 of the Planning and Development Regulations 2001-2022 (the Regulations), namely:

"10. Infrastructure projects

- (b) *(i) Construction of more than 500 dwelling units*
- (iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built up area and 20 hectares elsewhere."*

¹ Directive 2011/92/EU of the European Parliament and of The Council on the assessment of the effects of certain public and private projects on the environment: 13 December 2011.

² Directive 2014/52/EU of the European Parliament and of the Council amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment: 16 April 2014.

³ Screening is the process by which a planning authority evaluates an application related to a type of development for which a mandatory submission of an Environment Impact Assessment report (EIAR) is not specified.

⁴ The types of development which are the subject of this study are Annex II developments.

⁵ Paragraph 4 provides that where a Member State requires a determination for projects listed in Annex II the developer will provide various types of information. Paragraph 5 sets out on what basis a competent authority (Planning Authority or An Bord Pleanála in Ireland) shall make its decision on applications for development.

⁶ It should be noted that the Directive lists projects in Annex I that require mandatory EIA, and in Annex II it lists projects that require screening or mandatory EIA, and that they are transposed by Schedule 5 of the Irish Planning and Development Regulations (2001 – 2022).

The thresholds mentioned above (500 dwelling units, and the various site areas) are thresholds above which an EIAR is required to be provided by an applicant seeking planning permission. These thresholds are referred to in this study as 'inclusion' thresholds. A threshold below which there is no need to submit an EIAR is referred to in this study as an 'exclusion' threshold.

In the case of developments below these inclusion thresholds, the planning authority needs to undertake a screening exercise to determine whether or not an Environment Impact Assessment (EIA) would be required. The changes introduced by the 2014 Directive mean that an applicant for planning permission that needs screening for EIA would be required to submit the information listed in Annex IIA of the 2014 Directive. While this should not be overly burdensome nor inappropriately expensive for large scale developers, it potentially would be for small scale domestic type developments being carried out by members of the public. The main objective for the Department considering the introduction of exclusion thresholds is to protect citizens from additional costs that may not be necessary.

If thresholds were to be set below which no screening was necessary, then a three category arrangement would be established:

- Above an upper threshold where an EIAR is mandatory⁷. The threshold in this case is referred to as an *'inclusion' threshold*. In colloquial traffic lights terms this category could be referred to as being in a Red Light zone;
- Below a lower threshold where no screening, and as a consequence, no EIAR is necessary. The threshold in this case may be referred to as an *'exclusion' threshold*. Green Light zone.
- Between upper and lower thresholds where screening is required to be undertaken by the planning authority to determine whether or not an EIAR is necessary. This threshold is referred to as an *'intermediate' threshold*. Orange Light zone.

A fundamental question regarding the introduction of one or more exclusion thresholds is whether or not such thresholds should be introduced. This question can be addressed in two basic ways, namely, from a broad conceptual/theoretical perspective, and/or by using an evidence based approach which would entail analysing cases to identify if in all or at least a large majority of cases below a certain number of dwelling units or site areas there are not likely to be significant effects on the environment.

The approach adopted regarding this fundamental question is to adopt the latter, evidence based approach, which is set out in sections 5 and 6 below, with an overview perspective set out in section 7.

In summary, the main intention of this review is to introduce a three traffic lights scheme in the case of the residential and 'urban development' types of development referred to in clauses 10(b)(i) and 10(b)(iv). In order to explore this matter, the Department of Housing, Local Government and Heritage (the Department) undertook a suitable tendering process, and in November 2021 Bruce McCormack Consulting was appointed to undertake the study on the basis of a study brief, key components of which are set out in Annex (1).

2 METHODOLOGY

As mentioned above, a basic feature of the approach adopted was to establish as far as possible an evidence basis for the establishment of thresholds. In essence this entailed reviewing key features (e.g. number of dwelling units, site size, whether or not an EIAR was present, etc.) of thousands of planning application cases so that patterns can be identified which could provide guidance regarding the levels of thresholds which should be suggested. The benefit of reviewing many cases is that basic patterns can be identified and that biases associated with the analysis of fewer numbers of cases would be eliminated. In short, analyses based on large

⁷ It is appropriate to note that Annex I of the Directive lists project types for which EIAs are a mandatory requirement. In these cases, the decision-making authority does not need to undertake screening.

numbers of cases provide stable results whereas analysis based on small numbers are likely to be subject to biases and excessive variability.

Broadly three types of analysis/review were adopted to undertake the study as indicated below. A benefit associated with adopting a variety of approaches is that possible misleading results from only say a single approach could be tempered or put into context by the results from the other types of analysis.

(A) STATISTICAL/NUMERICAL BASED APPROACH

Two main statistical/numerical based approaches were used.

(a) Natural Language Processing/Machine Learning (NLP/ML) Based Approach

NLP/ML involves using software to identify relevant text or numerical features in text documents⁸. For example, using NLP/ML it would be possible to identify the number of dwelling units in a proposed development. This would normally be a quite straightforward task for a human to undertake but for software to 'understand' what is written in the text is not such a straightforward matter, mainly because there are many ways in which the number of dwellings can be set out. For example, '45 dwellings', 'forty five units', '45 dw.', '45 (no.) units', 'No. 45 apartments', 'four blocks of 10 apartments and 5 dwellings'.

Also, in addition to identifying for example numbers of dwelling units, the NLP/ML approach can be used to identify which cases have EIARs, a very important requirement in this study.

An advantage associated with the use of NLP/ML is that once the necessary algorithms have been written and tested for validity, analysis of many thousands of cases can be undertaken very quickly with the resulting stability of results based on large numbers mentioned above. This overcomes the need for very laborious, time consuming case-by-case analyses of very many cases, which is not possible within a time and budget constrained study such as the current study.

A research agency based in University College Dublin called CeADAR is an expert in these NLP/ML matters and so it was retained to undertake NLP/ML analysis of many thousands of relevant planning case files.

Strategic Housing Development case data from An Board Pleanála and cases submitted to planning authorities were obtained from the ePlan⁹ facility and were subject to NLP/ML analyses.

(b) Myplan.ie and National Planning Application Database Approach (NPAD)

As has been noted above, in the case of Clause 10(b)(iv), reference is made to different types of areas; 'business district', 'other parts of a built up area', and 'elsewhere'. Thus, in order to identify suitable thresholds, it is necessary to conduct analyses of cases within precisely defined geographical boundaries for each of these types of areas. The approach to achieving such precise definition of areas which was adopted in this study was to use the zoning classification system which the Department created which is referred to as 'Generalised Zone Types' (GZT)¹⁰. On the adoption of a new or varied Development Plan or Local Area Plan planning authorities are required to provide the Department with both the zonings in the new or varied plan and the classification of

⁸ See references (3), (4) and (5) for non-technical descriptions of NLP.

⁹ See [Welcome to ePlans \(eplanning.ie\)](http://www.eplans.ie)

¹⁰ It is appropriate to mention that GZT zoning is not a factor when planning authorities are considering EIA issues. The use of the GZT zonings in this study represents a standardised approach to defining the various types of areas listed in section 10(b)(iv) ('urban development') section of the Directive.

these zonings in terms of the GZT classification scheme. This zoning information is made available by the Department on its Myplan.ie web facility¹¹.

In essence, the GZT classification scheme identifies broadly comparable zone types in the adopted/varied DPs and LAPs and allocates them into a single GZT category. For example, the many types of residential zones across the many DPs and LAPs would fall within the broadly defined GZT 'Residential' category. A full description of the GZT scheme is set out in Section (A) of Annex (2).

It should be noted that the zoning in not all DPs and LAPs are recorded in MyPlan.ie and hence in these cases no GZT zonings were available. In this study regarding certain analyses, the consultant was constrained to work with areas where GZT zoning information was available¹², whereas in other analyses which involved many tens of thousands of cases the analyses were based on urban areas where GZT data existed, and settlement boundary data provided by the Central Statistics Office (CSO)¹³

The National Planning Applications Database (NPAD)¹⁴ is an internet based facility provided by the Department which enables planning authorities to record the location and details of planning applications which they have received. Access to the full set of applications in Ireland is provided in GeoHive¹⁵, an initiative by Ordnance Survey Ireland. By downloading cases from this database, it is possible to get the cases required to conduct the evidence based analyses necessary to identify thresholds.

In Chapter 6 the Myplan.ie and NPAD case information was combined so as to identify details about planning applications in various relevant types of GZT zones in the case of both 'business district' and 'other parts of a built-up area' areas. In the case of 'elsewhere' areas these were regarded as areas without any GZT zoning and outside the CSO defined settlement boundaries. The GIS processing which took place to identify these 'elsewhere' areas involved the use of the QGIS software package.

(B) REVIEW OF INDIVIDUAL APPLICATONS

The approaches set out in (A)(a) above were largely based on automated procedures. The individual applications review approach was very different as it involved the consultant reviewing a large number of planning authorities and An Bord Pleanála (ABP) cases on a case-by-case basis. This entailed focussing mainly on reviewing the planners'/inspectors' reports so as to gain an understanding of the environment related issues involved in each individual case and identifying whether or not an EIAR was present.

(C) LEGISLATION IN OTHER JURISDICTIONS

In this case the relevant legislation that governs EIA matters in Northern Ireland, Scotland, England and Wales, and Slovenia was reviewed.

¹¹ See Myplan.ie

¹² See for example the analyses related to eight selected towns as set out in Chapter 6.

¹³ See various analyses in Chapter 6.

¹⁴ See [National Planning Application Database \(arcgis.com\)](http://NationalPlanningApplicationDatabase(arcgis.com))

¹⁵ See [GeoHive Hub](http://GeoHiveHub)

3 LEGISLATION IN OTHER JURISDICTIONS

(A) NORTHERN IRELAND

The relevant legislation in Northern Ireland is 'The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017; No83 of 2017'.

The basic approach which is adopted in this legislation is to determine whether or not a proposed project is an 'EIA project'. If a project is deemed to be an EIA project, then the provisions of Schedules 1 or 2 are applicable¹⁶. In the case of developments which are equivalent to the two types of development relevant in this study (residential development and 'urban development') the provisions of Schedule 2 section 10 'Infrastructure Projects' are applicable (see below).

Regarding 'infrastructure projects', a threshold is set above which screening is required and below which there is no need for screening. As indicated below, in the case of 'industrial estate development', 'urban development projects, and 'intermodal transport facilities and terminals' the threshold is set at 0.5ha. Thus, above this specified area screening is required and below the set area no screening is necessary.

It is appropriate to note that no specific reference is made to residential developments as distinct from other types of 'infrastructure projects'.

In Traffic Lights terms a Green and Orange Lights scheme is applicable.

10 Infrastructure projects	
(a) Industrial estate development; (b) Urban development projects, including the construction of shopping centers and car parks; (c) Construction of intermodal transshipment facilities and of intermodal terminals (unless included in Schedule 1);	The area of the development exceeds 0.5(ha)

(B) SCOTLAND

The relevant legislation in Scotland is 'The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017; No 102 of 2017'.

The situation in this jurisdiction is set out below in an extract from the Regulations (Schedule 2 Table article 10(a)-(c)).

¹⁶ In the case of Schedule 1 projects, EIAs are mandatory in all cases.

<p>10. Infrastructure projects</p> <p>(a) Industrial estate development projects.</p> <p>(b) Urban development projects, including the construction of shopping centers and car parks, sport stadiums, leisure centers and multiplex cinemas.</p> <p>(c) Construction of intermodal transshipment facilities and of intermodal terminals (unless included in schedule 1);</p>	<p>The area of the development exceeds 0.5 hectare.</p>
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In this Scottish case the situation regarding the threshold above which ‘infrastructure projects’ become EIA projects is the same as in Northern Ireland (NI), namely 0.5ha; above this threshold screening is required, and below the threshold no screening is necessary.

As in the NI case, there is no specific reference to residential development projects, which in the Scottish case would fit within the Scottish ‘urban development’ category (10(b)).

In Traffic Lights terms a Green and Orange Lights scheme is applicable.

(C) ENGLAND AND WALES

The relevant legislation in England and Wales is ‘The Town and Country Planning (Environmental Impact Assessment) Regulations 2017; No 571 of 2017’.

The situation in this jurisdiction is set out below in an extract from the Regulations (Schedule 2 article 10(b)).

<p>(b) Urban development projects, including the construction of shopping centers and car parks, sports stadiums, leisure centers and multiplex cinemas;</p>	<p>(i) The development includes more than 1 hectare of urban development which is not dwellinghouse development; or</p> <p>(ii) the development includes more than 150 <u> dwellings</u>; or</p> <p>(iii) the overall area of the development exceeds 5 hectares.</p>
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In terms of the above section of the Regulations, if an urban development project exceeds any of the above thresholds (1ha, 150 dwellings and 5ha) indicated in the second column, then it would be regarded as an EIA project and screening would be required. Below the thresholds the project would not be deemed to be an EIA project and no screening would be necessary.

In Traffic Lights terms a Green and Orange Lights scheme is applicable.

(D) SLOVENIA

In Slovenia the relevant legislation is a Decree “on interventions which are subject to an environmental impact assessment” in terms of “... paragraph 4 of Article 51 and paragraph 9 of Article 51a of the Environmental Protection Act (Uradni list RS [Official Gazette of the Republic of Slovenia], no. 39/06 - official consolidated text, 49/06 - ZMetD, 66/06 - Constitutional Court's Decision, 33/07 - ZPNačrt, 57/08 - ZFO-1A, 70/08, 108/09, 108/09 - ZPNačrt-A, 48/12, 57/12 and 92/13), the Government of the Republic of Slovenia”.

The relevant section in the Decree is set out below.

Code	Chapter description and categories of activities	EIA ¹	PP ²
G	Urban planning and building industry		
G.I	Urban projects ³⁶		
G.I.1	Interventions intended for industrial activities referred to in Chapter C of this Annex (industrial zones), if exceeding the area of 5 ha	X	
G.I.1.1	• other industrial zones, if exceeding the area of 1 ha		X
G.I.2	Interventions intended for commercial activities, sports, recreation, entertainment, culture, education, health service (urban projects), if exceeding the area of 10 ha	X	
G.I.2.1	• other urban projects, if exceeding the area of 1 ha		X
G.I.3	Interventions intended mainly for residing and associated activities (residential areas), if exceeding the area of 10 ha	X	
G.I.3.1	• other residential areas, if exceeding the area of 2 ha		X

³⁶ Spatial arrangement is a coordinated set of planned interventions in space, activities, and networks with associated surfaces in a given area that are planned with spatial planning documents.

In essence a three light Traffic Lights scheme is put in place:

- **Red Light** category developments would have a site area higher than the site area specified with a red box in the EIA column;
- **Orange Light** category developments would have a site area which is larger than the site area indicated in the cases which have a blue box in the PP column, but are smaller than the site area specified in the red box category;
- **Green Light** categories would be where the proposed development has a site area below the area specified in the blue box category.

An example of how the scheme would work in the case of residential development (see G.I.3 and G.I.3.1 above) is that below 2.0ha no screening would be required; between 2.0ha and 10.0ha screening would be required; and above 10.0ha an EIA would be a mandatory requirement.

From the Irish perspective, a relevant point to note is that a three category Traffic Lights scheme has been adopted elsewhere in the EU.

4 GUIDING PRINCIPLES

In order to have a framework within which to consider at what levels thresholds should be set it is appropriate to have a set of overarching guiding principles.

Five guiding principles may be identified.

- (1) The overall guiding principle should be that cases which would likely result in significant effects on the environment in terms of the issues set out in Schedule 7 of the Regulations¹⁷ should be subjected to EIA.
- (2) Where it is considered that the likelihood of there being significant effects on the environment is low bearing in mind:
 - (a) the application of a precautionary principle;

¹⁷ “Criteria for determining whether development listed in Part 2 of Schedule 5 should be subject to an Environmental Impact Assessment”.

(b) the size, nature, and location of a proposed development;

(c) the issues set out in Schedule 7;

then there would be no significant need for an EIA; i.e., an exclusion threshold could be set below which there would not be a need for screening by the planning authority as set out in the Regulations.

- (3) Where there is any reasonable doubt whether or not there would be significant effects on the environment taking account of issues (2)(a) to (c) above then applications should be subject to screening.
- (4) Where based on size, nature, or location of applications there is a strong likelihood that there could be significant detrimental effects on the environment then an EIA should be mandatory.
- (5) Given the fact that significant environmental effects are possible even in the case of small projects which may fall within a Green Light zone based on their nature and location, it is appropriate to provide for the planning authority/An Bord Pleanála to undertake a screening exercise, and if deemed appropriate call for an EIAR to be provided by the developer prior to the authority deciding on the application. This principle gives rise to what may be termed a proviso associated with the Green Light category of proposed developments.

5 RESIDENTIAL DEVELOPMENT THRESHOLDS

(A) THE REGULATIONS

In terms of Clause 10(b)(i) of the Regulations, proposed projects which involve more than 500 dwelling units must submit an EIAR, whilst below this number the planning authority must undertake a screening exercise. The above 500 units threshold thus represents what in this study is termed an inclusion threshold.

(B) THRESHOLDS

In order to obtain an evidence basis for identifying thresholds CeADAR was asked to provide a sample of cases from the Strategic Housing Development (SHD) cases processed by ABP, and separately cases processed by City and County planning authorities. The case data from both sources was analysed, and the main results of the analyses are presented below. It should be noted that although the analyses described below are undertaken separately for ABP and planning authority cases this does not imply in any way that thresholds should be set differently for applications to ABP and to city and county planning authorities. Any thresholds which may be suggested would be applicable to cases coming before both types of planning authority.

(a) An Board Pleanála SHD Residential Cases

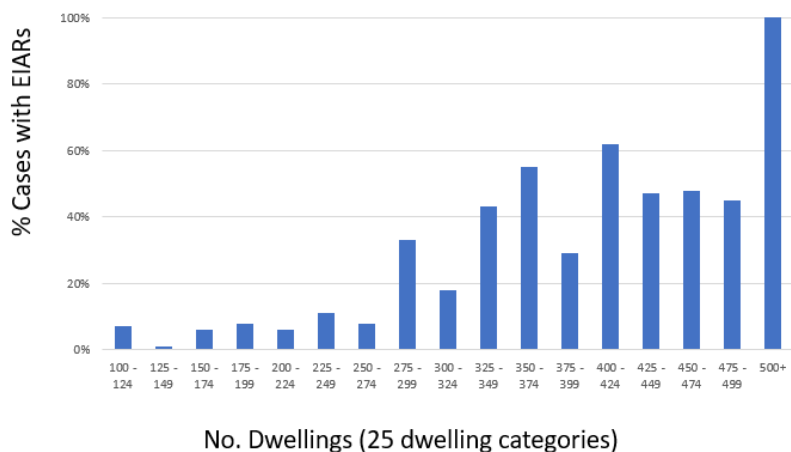
CeADAR provided a set of 1 292 Strategic Housing Development cases which had been dealt with by ABP. In terms of the Planning and Development (Housing) and Residential Tenancies Act 2016 developers of residential projects involving 100 or more dwellings were able to submit their applications to ABP for consideration and approval¹⁸. Based on NLP/ML analysis in each case the researchers identified the number of dwellings¹⁹ and whether or not an EIAR was present.

The histogram below both sets out the total number of cases in 25 unit categories and the percentage of cases in each category for which an EIAR was present. The data on which this histogram is based is provided in Table 1 in Annex (3).

¹⁸ It should be noted that SHD applications can no longer be submitted to ABP, which would however not affect the validity of analysing cases during the period when the SHD section of the Act (Chapter 1) was effective.

¹⁹ Referred to as 'homes' in the Act.

HISTOGRAM 1 -ABP STRATEGIC HOUSING DEVELOPMENT CASES: CATEGORISED BREAKDOWN



Note: The total number of cases is 1292.

A number of noteworthy points are highlighted below which may be inferred from the histogram and the table in the Annex:

- In cases involving up to 274 units the percentage of cases which have EIARs is below 10%, apart from one category (225 to 249) where the percentage is 11%. Clearly only in a relatively small minority of cases in this size range did ABP Inspectors (or the Board itself) consider it necessary for there to be an EIAR;
- In the majority of categories in the 425 – 499 range (three out of four) the percentage of cases which have EIARs is less than 50%.

Before drawing conclusions regarding what might be appropriate inclusion and exclusion thresholds based on this analysis it is useful to consider why some cases have EIARs and others do not.

Of particular interest is to identify the reasons why some of the cases with fewer dwellings (below 275 units) had EIARs and why some of the cases involving larger projects (400 to 500 units) did not have EIARs. The reasons identified were based on consultant reviews carried out on a case-by-case basis.

Fewer Dwellings Developments (274 or less units)

The case-by-case manual review indicated that some of the reasons for having an EIAR were as set out below.

- The developer submitted an EIAR with the application without having been requested to do so. This was based on the developer applying the precautionary principle that the proposed development might have had a significant effect on the environment. An unstated reason might be that the developer considered it more cost effective and time saving to get an EIAR produced up front bearing in mind that there would be a level of delay involved if he/she were to only start the process of getting one produced after receiving a request for one from ABP.
- Because there could be possible significant impacts on the surrounding development there was a need to explore such impacts through conducting an EIAR.
- The number of units exceeds the 'dwelling units' threshold (500 units) when the number of units in the current application is added to the number of units in a previously approved but as yet undeveloped project on the same site.

- The 500 level threshold would be exceeded because of the amount of recent development in the surrounding lands (i.e., the cumulative²⁰ effect consideration comes into effect), not because the project itself exceeds the 500 unit threshold.

Developments with Larger Numbers of Dwellings (400 to 499 units)

The reasons given why no EIAR was needed in the case of these larger projects are set out below.

- No issues were flagged in the preliminary examination, and thus there was deemed not to be a need for screening for EIA, and hence no EIAR was present.
- All the environmental issues and mitigation measures raised in pre-submission consultation meeting(s) were adequately addressed.
- Many specialist reports were included in the submission which adequately covered all the relevant potential environmental issues. It is appropriate to note that in some submissions in excess of 15 specialist reports were included (e.g., on bats, groundwater, flooding, visual impact, daylight shading, traffic impact, construction operations, noise, waste disposal, etc.).
- In the case of environmental issues which might give rise to problems, the mitigation measures proposed were adequate.
- The proposed development was typical of surrounding residential development and could be regarded as appropriate infill; the size and design of the proposed development was not unusual for the location.
- The developer had submitted his/her own screening report which was considered acceptable by the ABP Inspector, and this report indicated that there was no need for an EIAR;
- The proposed development was in line with national planning policy and all the relevant Ministerial or other Guidelines.
- The zoning was appropriate, and the proposed development met all the relevant Development or Local Area Plan policies and objectives²¹.

Exclusion Threshold based on SHD Data

Taking account of the patterns illustrated in the histogram, the comments listed above, and the guiding principles set out in Section 4 above, it is considered appropriate that an exclusion threshold in the 250 to 275 range would be suggested. Erring on the side of caution it is suggested that the exclusion threshold be set at 250 dwelling units.

Inclusion Threshold based on SHD Data

The data from the review of SHD applications does not provide adequate evidence to make a suggestion regarding what might be an appropriate inclusion threshold because all projects above 500 dwelling units were

²⁰ Cumulative effects may be defined as the addition of several minor or significant effects, or the combined effects of projects that exist or have been permitted but not yet developed.

²¹ It should be noted that part of the process for the making a Development or Local Area Plan involves undertaking a Strategic Environment Assessment of the plan when at a draft stage. In terms of Directive 2001/42/EC on Strategic Environmental Assessment (SEA), an SEA is mandatory 'for plans that are prepared for 'town & country planning' and which set the framework for future development consent of projects listed in the EIA Directive.' (Development Plans: Guidelines for Planning Authorities: June 2022). An 'Environment Report' which describes the likely significant effects on the environment of zoning and other measures in the plans forms part of the SEA evaluation process. Thus, all areas within the Development or Local Area Plan area are considered from an environment impact perspective. This 'zoning was appropriate ...' comment mentioned above should be seen in the light of the SEA process having taken place and which provides a general, overall positive framework for ensuring that at least on a broad, area-wide basis environmental impacts are likely to be acceptable. It also increases the likelihood that potentially significant environmental effects can be dealt with on a potential effect by effect basis through reports regarding each of these potential effects without the need for the wide-ranging and comprehensive analysis which is an inherent part of an EIAR.

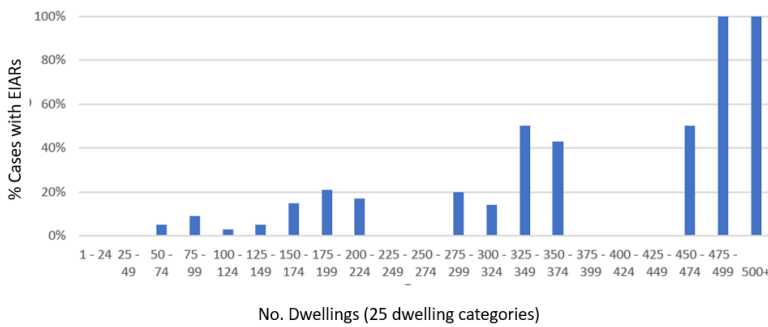
required to include an EIAR. However, the fact that in the case of projects below 500 units but above 400 units less than 50% of the cases had EIARs, would suggest that a higher level inclusion threshold may be appropriate. Nevertheless, given the lack of hard evidence it is suggested that it would be appropriate to err on the side of caution and suggest that the current 500 unit threshold be retained unchanged.

(b) City and County Planning Authority Residential Cases

In order to undertake a review of cases processed by planning authorities, CeADAR analysed 3,065 cases from the following authorities – Cork City, Galway County, Kildare County, Limerick City and County, Louth County and Meath County.

The histogram below sets out the total number of cases in 25 case categories and the percentage of cases in each category for which an EIAR was present. The data on which this histogram is based is provided in Table 2A in Annex (3).

HISTOGRAM 2 – PLANNING AUTHORITY CASES: CATEGORISED BREAKDOWN



Note: The total number of cases is 3,065.

Exclusion Threshold based on Planning Authority Data

Regarding the data indicated in the above histogram and in Table (2A) in Annex (3) (which is the basis for the histogram) it is noted that it is only in the categories above 325-349 units does the percentage of cases with EIARs exceed 21%. It should however be noted that from category 150-174 upwards the numbers of cases within each category become low (below 14 cases or less) which means that there is a level of instability in the results due to low numbers.

Table (2B) in Annex (3) shows in summary form the results set out in Table (2A) and in the histogram. This (2B) table highlights the fact that in all the cases up to and including category 225-249 there were only 27 cases out of a total of 3,065 cases which had an EIAR (i.e., 0.89% of the cases). Clearly, regarding residential developments with 250 or fewer dwelling units in the overwhelming number of cases planning authorities did not consider that an EIAR was necessary. This finding supports the suggestion set out on the basis of the ABP SHD cases analysis mentioned, namely that an exclusion threshold set at 250 dwelling units would be acceptable.

It should however be noted that in some cases (27) planning authorities (or possibly the developer) did consider that an EIAR was necessary, a fact which supports Guiding Principle (5), and thus the need for a condition in the cases in the exclusion zone which enables planning authorities/ABP to require an EIA when they deem it necessary.

Inclusion Threshold Based on Planning Authority Data

The data indicated in Table (2) in Annex (3) indicates that of the 3,065 cases analysed only 2 involved residential developments with 500 or more dwelling units, probably due to the fact that in recent years the SHD route via the ABP was available to developers. Also, it is appropriate to note that in the case of developments in the 400 to 499 categories the data in Table (2) indicates that there were only 5 cases recorded. These very low numbers do not permit any meaningful analysis in relation to the current 500 unit inclusion threshold to be undertaken.

It is thus suggested that from the planning authorities analyses without a solid evidence base the current 500 units threshold be retained.

6 'URBAN DEVELOPMENT' THRESHOLDS

(A) THE REGULATIONS

As mentioned above, in this case there are three categories of 'urban development', each with a specific threshold in the current Regulations, namely:

- Greater than 2.0ha in a '*business district*';
- Greater than 10.0ha regarding urban development in '*other parts of a built-up area*';
- Greater than 20.0ha '*elsewhere*'.

Thus, in all three cases if the area of a proposed development were greater than the areas stipulated in the Regulations then it is mandatory that an EIA be undertaken (and an EIAR submitted) before the planning authority/ABP could decide regarding the application. In the case of proposed developments with site areas below the statutory thresholds then screening for EIA by the authority is required.

(B) DEFINITIONS

The terms 'urban development', 'other parts of a built-up area', and 'elsewhere' in the Regulation are not specifically defined. In the case of the term 'business district', the Regulations define this type of area as '*a district within a city or town in which the predominant land use is retail or commercial use*'.

In order to develop an evidence based approach to setting thresholds it is necessary to adopt working definitions of these terms which substantially limit ambiguity so that cases can be categorised accurately and consistently. Without precise definitions of the abovementioned types of areas it would not be possible to rigorously categorise cases by area, and thus a consistent evidence basis would not be possible. It should be noted that the approach set out below which is used in this study as a basis for defining the terms is not the only approach which could be adopted but it is considered to represent a reasonable basis for proceeding.

Definition 'Urban Development' and its Various Components

Basically, two different approaches can be used for defining 'urban development'.

- **Features of the development.** Possible features could be the type of use (factory, office, shop, public house, etc.), size (e.g., number of dwelling units, floor area, height, coverage, etc.), and density (proximity to other developments).

Type of use is unlikely to be of much use as a criterion because in the case of many types of use they can quite appropriately occur in virtually any part of a country, urban or rural (eg. shop, office, public house,

farm²²), whether generally regarded as part of the countryside or part of a built-up town. Thus, type of use would not provide a sound, precise basis for defining what is 'urban development'.

In the case of **scale**, whilst it might be clear at the ends of a scale continuum to identify urban development and non-urban development, the question becomes, at what scale does a transition occur from urban to non-urban? Clearly there is no precise or even reasonably precise answer to this question, and thus scale does not provide a sound, definitive, precise basis for defining 'urban development'.

Regarding **density of development**, this criterion also provides little assistance if a precise, definitive definition of 'urban development' is sought. The question arises, taking size and other factors into account where would be a transition density level between urban and non-urban? Furthermore, if a definitive break point could be identified it could vary significantly between all the many types of 'urban development' types of uses which it is possible to identify. Thus, no consistent generally applicable answer is possible using a density criterion.

- **Spatial location of the development.** If it is possible to define the boundary of an urban area (see below), then 'urban development' would be any development within this boundary. In principle the matter is clear cut down to the sub-metre level. However, defining 'urban development' outside of clearly demarcated urban area boundaries is not a straightforward matter, an issue which is considered in more detail below.

The above 'theoretical' review of the definition issue suggests that both basic approaches have difficulties. However, it is essential that an approach be adopted in order to be able to undertake a consistent evidence based analysis which can suggest at what levels thresholds should be set. In this study the 'spatial location' approach has been adopted, mainly because data is available which gives precise spatially defined boundaries, so it becomes possible to allocate cases into each of the types defined in the legislation. In fact, two spatial boundaries approaches are used.

- **The Generalised Zone Type (GZT)** zonings (mentioned in section 2 above) which were developed by the Department and are used to categorise the zonings in Development and Local Area Plans. As mentioned in the earlier discussion, the Department requires planning authorities to provide both the adopted zonings in their plans, and the categorisation of these zones in terms of the Department's GZT format. A description of the GZT zones which are used are set out in Annex (2)(A). Annex (2)(B) indicates which of the GZT zones are categorised as describing the 'business district', and 'other parts of a built-up area'. GZT zones for towns and cities in Ireland can be obtained and downloaded from the Department's Myplan.ie website.
- The **Central Statistics Office (CSO)** definition of settlement areas²³. An advantage associated with using this approach is that it is used by a government agency, and uses a standardised United Nations based approach to spatially define urban areas. The boundary data used in this study is the CSO ungeneralised boundary set which was based on 2016 census data.

In summary, 'urban development' in the case of 'business districts' and 'other parts of a built-up area' is regarded as development within selected defined GZT zones and within the CSO defined settlement boundaries. This raises the issue of how to define 'urban development' in an 'elsewhere' context. This is not a straightforward matter for which there is no clear-cut answer. A few examples will illustrate the point. Is a dwelling house developed in an 'elsewhere' area 'urban development' bearing in mind that national planning policy²⁴ specifically mentions urban generated rural housing?²⁵ If the dwelling house is located within or

²² For example, farms (areas for growing crops or rearing animals) may be small, say under 0.1ha where intensive vegetable cultivation could take place. This type of farm could well occur in a built-up city/town area.

²³ See [Census 2016 Boundary Files - CSO - Central Statistics Office](#).

²⁴ See Sustainable Rural Housing: Guidelines for Planning Authorities (2005).

²⁵ It is appropriate to note for example that the Cavan Development Plan 2014 – 2020 in its section 3.7 'E-working, Tele-working and Home Based Economic Activity in Rural Areas' describes home based economic activity as 'small scale commercial activity carried out by residents of a house ...'.

adjacent to an existing cluster of dwellings around a crossroads which for example may have a small shop (or public house) within the cluster, should this new proposed dwelling be considered 'urban development'? Should an application for the development of a public house in a rural area be regarded as 'urban development'? Does the fact that a farm products processing and packaging facility (which might be quite large, employ many people and occupy a large land area) mean that because of the farm products link it should not be classified as 'urban development' when this same facility could be located in an urban area and would be classified as 'urban development'.

The list of cases for which no straightforward answer is possible is virtually endless. The consequence of this is that in this study no definition of 'urban development' in an 'elsewhere' context is provided. Instead, the approach adopted in this study is to identify cases of any type in 'elsewhere' areas and review the approaches adopted by planning authorities to see how they deal with the matter from an EIA perspective.

(C) 'BUSINESS DISTRICTS'

As noted above, the current inclusion threshold in the Regulations is 2.0ha.

Two types of analysis were conducted in order to get insights which could be of assistance in determining appropriate inclusion and exclusion thresholds, namely, analyses related to thousands of case site areas across Ireland, and sample surveys from cases in eight selected towns.

(a) Cases Site Area Distribution

A total of 14,720 cases were downloaded from GeoHive which fell into the 'business district' areas as defined in GZT terms in this study (see 'Definition 'Business District'' above). An analysis of the distribution of these cases is indicated below²⁶:

- 83% of the cases (12 202) involved site areas of less than 1.0ha;
- 6% of the cases (886) had site areas of between 1.0ha and 1.99ha;
- 2% of cases (362) had areas between 2.0ha and 2.99ha;
- 5% of the cases (784) had areas larger than 3.0ha.

A number of observations may be made regarding the above statistics:

- The proportion of cases which are above the 2.0ha current inclusion threshold is small (7% of cases);
- The overwhelming majority of cases (83%) have site areas which are significantly below the inclusion threshold.

The size distribution indicated above suggests that if an exclusion threshold were to be set at say 1.0ha the large majority of cases would be excluded from the automatic need for screening.

(i) Sample Towns EIAR Analysis

In order to get a perspective on what might be an exclusion threshold in the GZT areas indicated as being within 'business districts' an analysis of planning applications in the defined 'business district' areas in eight towns was undertaken²⁷. The two key aims were to identify the site sizes involved, and whether or not an EIAR was part of the submission by the developer. The towns were selected based on the availability of both GZT information in Myplan.ie and applications in NPAD, and also because the selected towns were considered to be representative of towns in Ireland.

²⁶ In the case of 4% of the total number of cases (489) it was not possible to identify the exact area of the proposed project.

²⁷ The towns were Castleblaney, Carrickmacross, Dunshaughlin, Gort, Longford, Loughrea, Navan and Portlaois.

The analysis involved 518 cases in 'business districts' in the eight towns. Some key results are indicated below.

- 86.7% of the cases had site areas below 1.0ha – i.e., below the current inclusion threshold.
- 6.4% of cases had site areas between 1.0ha and 1.9ha – i.e., below the current inclusion threshold.
- 2.1% of cases had areas between 2.0ha and 2.9ha – i.e., above the current inclusion threshold.
- 4.8% of the cases had areas of 3.0ha or greater – i.e., above the current inclusion threshold.

Based on the above data only 6.9% of the cases (2.1% plus 4.8%) would be at or above the current inclusion threshold where EIA would be a mandatory requirement, whilst 93.1% of cases would be below this threshold and would thus currently require screening.

In order to get insight into the relationship between site size and whether or not an EIAR was present a random sample of 100 cases was drawn from the full set of 518 'business district' cases and these 100 selected cases were subject to a case-by-case review. In terms of site area, the 100 sample cases were distributed as set out below:

- 76% had site areas of less than 1.0ha;
- 16% had site areas between 1.0ha and 2.0ha;
- 8% had site areas of greater than 2.0ha but less than 2.93ha, the largest site in the sample.

Clearly, 92% of the 100 cases had site areas below the current statutory inclusion threshold of greater than 2.0ha.

Case-by-case analysis of the 100 cases in terms of whether or not they had an EIAR indicated that no cases had EIARs.

Based on the two types of analyses mentioned above (case site area distribution, and sample survey data) it is appropriate to review the implications for both inclusion and exclusion thresholds in 'business district' areas.

Suggested Business District Exclusion Threshold

In terms of the principles set out in Section 4 above; the distribution of the 518 cases by site size; the fact that none of the 100 sampled cases had EIARs, it is suggested that an exclusion threshold could reasonably be set at 1.0ha. Based on the sample survey results it may be expected that approximately 76% of cases in 'business districts' would fall into this exclusion threshold category.

Suggested Business District Inclusion Threshold

Based on the results of the eight town sample survey of 100 cases in particular, but also taking account of the guiding principles and the distribution of cases by size in the analysis of 14,720 cases, it is suggested that the inclusion threshold could be increased from the current statutory 'greater than 2.0ha' threshold to 'greater than 3.0ha'. In the case of an inclusion threshold set at this 3.0ha level it may be expected that only a very small minority of cases in 'business districts' would definitely require an EIAR as part of the submission by a developer or citizen.

Overview: Suggested Traffic Lights Scheme in the case of 'Business Districts'

Red Light – above 3.0ha site area: inclusion threshold zone.

Orange Light – 1.0ha to 3.0ha: intermediate threshold zone.

Green Light – below 1.0ha: exclusion threshold zone.

(D) 'OTHER PARTS OF A BUILTUP AREA'

As noted above, greater than 10.0ha is the inclusion threshold set out in the Regulations for urban developments in 'other parts of a built-up area'.

Two types of analysis were conducted in order to get insights which could be of assistance in suggesting appropriate inclusion and exclusion thresholds, namely analyses related to case site areas, and sample surveys from cases in the eight towns mentioned above.

(a) Cases Site Area Distribution

A total of 39,939 cases were downloaded from GeoHive which fell into the 'other parts of a built-up area' category as defined in GZT terms in this study. An analysis of the distribution of these cases is indicated below²⁸:

- 97.9% of the cases (39 119) involved site areas of less than 2.5ha;
- 0.8% of the cases (323) had site areas of between 2.5 and 4.99ha;
- 0.5% of cases (208) had areas between 5.0ha and 7.49ha;
- 0.2% of the cases (85) had areas between 7.5ha and 10.0ha;
- 0.5% of the cases (204) had areas larger than 10.0ha.

A number of observations may be made regarding the above statistics:

- The proportion of cases which are in the above 10ha statutory inclusion zone is very small (0.5%);
- The overwhelming majority of cases have site areas which are significantly below the current inclusion threshold, with for example 97.9% being smaller than 2.5ha in extent, less than a quarter of the inclusion threshold.

An analysis of the types of development which constituted the cases in the 'other parts of a built-up area' indicated that residential types of development constituted the most common distinct type of development (29%). Also, a significant minority (18%) of all the 39,939 cases in this 'other parts of a built-up area' involved extensions or alterations to buildings, which suggests that in broad terms it would be unlikely that there would be significant environmental impacts, particularly considering that all these developments are within approved zoned areas which had been evaluated for environmental impact during the SEA process and would very largely be on public water and sanitation systems²⁹. Also, much of the development would be of an infill nature.

(b) Sample Towns EIAR Analysis

In this case the same eight towns as referred to in relation to the 'business district' analysis³⁰ had 699 cases in 'other parts of a built-up area' as defined in GZT terms in this study. The distribution of cases by site size was as set out below:

- 89.0% of the cases (622) had a site area of less than 1.0ha;
- 8.7% had site areas (61) of between 1.0ha and 4.99ha;
- 1.7% had site areas (12) of between 5.0ha and 10.0ha;
- 0.6% had site areas (4) greater than 10.0ha.

²⁸ The percentages add up to 99.9% due to rounding errors.

²⁹ See footnote 21.

³⁰ See footnote 27.

A case-by-case manual analysis of 100 randomly selected cases from the 699 cases was undertaken in order to get an insight into the cases which did, or did not, have EIARs. Regarding the distribution of site areas, 99 cases (i.e., 99%) were below the 10ha inclusion threshold.

A key result from the manual case-by-case analysis involving the 100 sample cases is that in no cases were EIARs present. Only one case had a site area above the 10ha inclusion threshold, and it did not have an EIAR. This case entailed the conversion of attics in 8 dwellings to habitable rooms and the positioning of windows on the side of the dwellings. These changes would take place in an existing housing estate development with a site area of 14.6ha.

An important point which emerges from this analysis is that assuming that the sample results adequately represent the wider situation in 'other parts of a built-up area', then EIAs would likely be very infrequently undertaken in these areas, even if the inclusion threshold were to be reduced significantly (see below).

Suggested 'Other Parts of a Built-up Area' Exclusion Threshold

In terms of the principles set out in Section 4, and the distribution of cases by site size, and the case by case analysis, it is suggested that an exclusion threshold could reasonably be set at 5.0ha. At this level it can be expected that approximately 98.7% of the number of cases in the future would fall within the suggested exclusion threshold zone.

Suggested 'Other Parts of a Built-up Area' Inclusion Threshold

The number of cases at or above the existing above 10.0ha inclusion threshold are very few (0.5%³¹) and thus do not provide a sufficiently robust, evidence basis on which to suggest what might be an appropriate inclusion threshold. Given this situation, it is suggested that the threshold remain at the current level.

Overview: Suggested Traffic Lights Scheme in the case of 'Other Parts of a Built-up Area'

Red Light – above 10.0ha site area: inclusion threshold zone.

Orange Light – 5.0ha to 10.0ha: intermediate threshold zone.

Green Light – below 5.0ha: exclusion threshold zone.

(E) 'ELSEWHERE'

As mentioned above, the Regulations indicate an inclusion threshold for 'urban development' of larger than 20.0ha in the case of 'elsewhere' areas.

As has been, mentioned above, 'elsewhere' areas are regarded in this study as areas which do not have GZT zoning and/or are beyond the CSO's settlement area boundaries³². Essentially these are areas which would be widely regarded as being of a rural or countryside nature. As set out in the 'Definitions' discussion above, 'urban development' can take place in rural/'elsewhere' areas.

Details regarding all the planning applications in the defined 'elsewhere' areas were downloaded from GeoHive with 83,167 cases being identified. An evaluation based on site size was undertaken. Key results of this analysis regarding site size were:

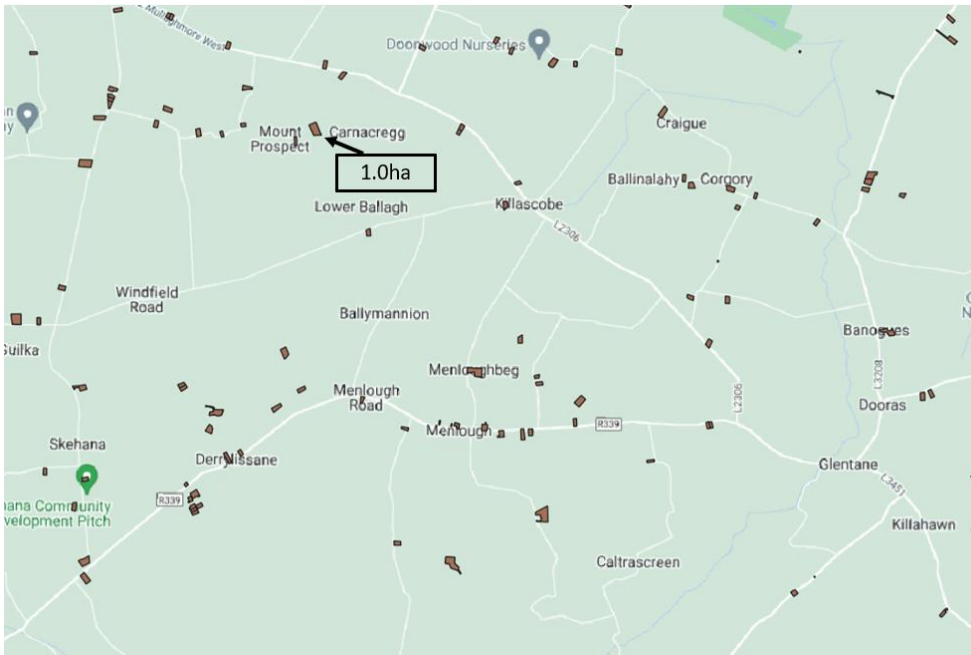
³¹ Percentage based on the Case Site Area Distribution analysis.

³² A 500m buffer was placed in QGIS around each of the urban areas in Ireland to ensure that all cases in the final dataset which was analysed were definitely outside of urban areas.

- 87.0% of the cases involved sites of less than 1.0ha;
- 11.1% involved cases which were between 1.0ha (inclusive) and 4.99ha;
- 0.5% involved cases which were between 5.0 (inclusive) and 9.99ha
- 0.9% involved cases were between 10.0ha (inclusive) and 20.0ha
- 0.5% of the cases were 20,0ha or larger in area;

A visual representation of the predominance of small site size cases in ‘elsewhere’ areas is shown below.

IMAGE 2 - TYPICAL SCENE SHOWING LOCATION AND SIZE OF RURAL DEVELOPMENT CASES



A random sample of 100 cases was selected from the 83,167 cases to identify the types of development which were involved, with the results set out below:

- 36% of the cases involved applications for the construction of new dwellings;
- 44% involved the amendment or extension of existing dwellings;
- 5% involved farm buildings or farm related works;
- 15% involved other types of proposed development (e.g., extension of quarry, erect telecommunications mast, erect temporary structure, create children’s play centre on a farm, establish broadband infrastructure, build roads and entrance to a forestry area, etc.).

Clearly 80% of the cases were related to dwellings and only 5% were clearly farm related.

A review of these 100 cases to determine if in any cases an EIAR was submitted indicated that in no cases was such a document included in the application.

As noted in earlier discussion, no attempt was made in these analyses to categorise any of the above types of development as ‘urban development’ because of the difficulties associated with setting out a clear and unambiguous definition of what constitutes such development in an ‘elsewhere’ context. In the case of dwelling related proposed developments (80.0% of the cases) if they are considered as falling within the residential

'dwelling units' clause³³ (10(b)(i)) then they would of course fall very substantially below the 500 units threshold (one unit) there would be no likelihood of screening requiring an EIAR. If on the other hand, if at least some dwellings were to be regarded as being of an urban generated nature and as a consequence being classified within the 'urban development' category (clause 10(b)(iv)) then in these cases the likelihood of a screening concluding that an EIA is necessary would appear to be remote.

Prior to considering what might be inclusion and exclusion thresholds it is appropriate to note that national policy and virtually all development plans in counties which have significant amounts rural areas have policies which are aimed at promoting sustainable rural areas, or at least limiting rural area decline. This would in many cases entail encouraging types of development which may from some perspectives be regarded as being of an urban nature (see footnote 33 below which relates to a dwelling house extension). However, such forms of development would very clearly be directed into towns or villages within the rural areas. Thus, the likelihood of 'urban developments' being located in what may be regarded as 'elsewhere' areas is very low.

Suggested 'Elsewhere' Exclusion Threshold

Based on the abovementioned findings it may be suggested that an exclusion threshold of 5.0ha could be introduced, which would likely cover about 80% of all applications when considered from a possible 'urban development' perspective.

Suggested 'Elsewhere' Inclusion Threshold

Given that the number of cases involving larger sites was very modest it is considered appropriate to leave the exclusion threshold at its current 20.0ha level. In this case it could be expected that only approximately half of one percent of cases would be required on a mandatory basis to submit an EIAR.

Suggested Traffic Lights Scheme in the case of 'Elsewhere' Areas

Red Light – above 20.0ha site area: inclusion threshold zone.

Orange Light – 5.0ha to 20.0ha: intermediate threshold zone.

Green Light – below 5.0ha: exclusion threshold zone.

7 DISCUSSION

In the sections above inclusion and exclusion thresholds have been suggested in the case of residential developments (dwelling units), 'business districts', 'other parts of a built-up area' and 'elsewhere' areas (i.e. rural areas). However, prior to confirming these suggestions it is appropriate to consider them in relation to two issues, namely legislation in other jurisdictions, and the relationship between the residential (clause 10(b)(i)) and urban development (clause 10(b)(iv)) thresholds.

³³ In one of the 100 applications evaluated on a case-by-case basis which entailed approval for an extension to a dwelling house, in the planner's report an evaluation of the application in terms of whether or not an EIA was necessary was undertaken. Whether the extension was viewed as being necessary because an extension to a dwelling house was considered to fall within the residential development or 'urban development' ambit was not mentioned. It was however concluded that no EIA was necessary.

(A) LEGISLATION IN OTHER JURISDICTIONS

At the outset it is appropriate to note that a main conclusion which can be drawn from the legislation indicated in Section 3 above is that exclusion thresholds have been adopted into legislation in other jurisdictions.

(a) Residential Development

In the case of the Northern Irish and Scottish legislation there is no specific reference to residential development.

In the case of England/Wales there is a specific reference to residential development, where the threshold below which no screening is required is set at 150 dwelling units. This level is below the 250 units level suggested in this study. No inclusion threshold is set.

In the case of the Slovenian legislation clauses G.I.3 and G.I.3.1 are of relevance as they refer specifically to residential type development. In this case the inclusion threshold is set at 10.0ha and the exclusion threshold at 2.0ha. Assuming residential development at say 30 dwellings per hectare, any project involving more than 300 dwelling units would mandatorily require an EIA, and projects below 60 dwelling units would be exempt from screening and the possibility that an EIAR would be required.

Viewed overall, the legislation in other jurisdictions referenced above displays considerable variety. Although there is an issue of not comparing like with like, broadly it may be stated that the thresholds in these other jurisdictions may be regarded as being more on the precautionary side than is the case with the thresholds suggested for Ireland in this study. The issue thus arises ... are the exclusion thresholds suggested above for Ireland in this study acceptable or should they be raised by some extent? In response to his question, it is appropriate to note that the thresholds related to residential development made in this study are clearly based on evidence of practice in Ireland.

(b) Urban Development

A first and obvious point to note when comparing the Irish legislation with the legislation in the other jurisdictions is that in the Irish case there is specific reference in the Regulations to different types of areas ('business district', 'other parts of a built-up area', 'elsewhere') whereas in the other jurisdictions the references are to types of development and not distinct types of geographical area. This makes direct comparison between the Irish and other legislation somewhat problematic. However, some commentary is possible.

Regarding the United Kingdom (UK) legislation, in cases below the stated thresholds there is no need for screening to determine whether or not a proposed development is an 'EIA development'. As stated in section 3 above, this creates a Green Light zone below the thresholds set out in the legislation. Currently in Irish legislation there are no Green Light zones, and thus in this sense the current Irish legislation may be considered to be more conservative than that which is applicable in the UK. Similarly, in the case of the Slovenian legislation where there are Green Light zones, the current Irish legislation may be considered to adopt a more conservative approach.

However, if Green Light zones are established in Irish legislation as is suggested in this study, then the thresholds below which there would not be a need for EIA would for example result in the UK legislation being of a more conservative nature than revised Irish legislation.

As in the case of Residential development thresholds mentioned above, it is considered that the evidence based approach adopted in this study and the focus directly on Irish practice indicate that although the threshold suggestions in this study are less precautionary than in the abovementioned legislation, they may be regarded as being acceptable regarding protecting the Irish environment based on the evidence based analyses undertaken in this study.

(B) INTERRELATIONSHIP BETWEEN RESIDENTIAL AND URBAN DEVELOPMENT THRESHOLDS

It will be clear from the discussion in Section 5 above that it is suggested that the exclusion zone threshold should be 250 dwelling units in terms of the 'dwelling units' (residential) clause, and from the discussion in Section 6 that the exclusion thresholds should be 1.0ha, 5.0ha and 5.0ha depending on the type of area in which a proposed project is located; 'business district', 'other parts of a built-up area', or 'elsewhere'.

Thresholds set for 'dwelling units' and 'urban development' need to be considered in relation to each other when dwelling units are part of a proposed development. This need arises because a particular proposed development which involves dwelling units may for example fall within the exclusion (Green zone) in terms of the 'dwelling units' clause (10(b)(i)) but not within any one of the three 'urban development' exclusion zones (10(b)(iv)). For example, if the proposed project in terms of site size fitted within a zone between inclusion and exclusion thresholds (i.e., intermediate, orange zone), then there would be an obligation on the planning decision-making body to undertake a screening exercise which could possibly result in the developer or citizen having to submit an EIAR. However, if the proposed project fell within the 'dwelling unit' exclusion zone (i.e., below the suggested 250 dwelling units threshold) but above one of the 'urban development' inclusion zone thresholds then there would be a mandatory requirement to submit an EIAR.

In the case of proposed projects involving dwelling units, the key to understanding the relationship between the suggested 'dwelling units' and the various 'urban development' thresholds is project density. For example, if a project were located in an 'other parts of a built-up area' and were to involve development of say 230 dwelling units (i.e., falls within the suggested 'dwelling units' exclusion Green zone) and would occupy a site of say 6 hectares (i.e., falls within the suggested 'urban development' intermediate Orange zone) then in terms of the suggested thresholds the planning authority would need to undertake a screening exercise.

An overview summary of the relationship between the thresholds in the 'dwelling units' and 'urban development' clauses is set out in the Table 3 below.

In the case of a proposed project which meets the dwelling units and site area thresholds set out in Table 3(a) there would be no need for screening.

In the case of a proposed development which meets either or both of 'dwelling units'/'urban developments' thresholds in Table 3(b) then screening would be required with the possibility that an EIAR would be required by the planning authority.

Regarding a project which meets either or both of the 'dwelling units'/'urban developments' thresholds set out in Table 3(c) there would be a mandatory requirement for an EIA to be undertaken, and thus an EIAR would need to be provided before the planning authority could decide on the proposed project.

TABLE (3) – RELATION BETWEEN THE SUGGESTED ‘DWELLING UNITS’ AND ‘URBAN DEVELOPMENT’ PROVISIONS

(3(a)) - WITHIN EXCLUSION AREAS (GREEN ZONES)

Dwelling Units		Urban Development (site area)	
less than 250	AND	Business District	less than 1ha
	AND	Other Built-up Area	less than 5ha
	AND	Elsewhere	less than 5ha

(3(b)) - WITHIN SCREENING AREAS (ORANGE ZONES)

Dwelling Units		Urban Development (site area)	
between 250 and 500	AND/OR	Business District	1ha to 3ha inclusive
		Other Built-up Area	5ha to 10ha inclusive
		Elsewhere	5ha to 20ha inclusive

(3(c)) - MANDATORY EIAR REQUIRED (RED ZONES)

Dwelling Units		Urban Development (site area)	
more than 500	AND/OR	Business District	larger than 3ha
		Other Built-up Area	Larger than 10ha
		Elsewhere	Larger than 20ha

There will certainly be cases where for example a development will be within a Green Light area on one or the other of the ‘dwelling units’ or ‘other parts of a built-up area’ categories but in an Orange or Red Light area on the other, in which case the more restrictive condition would be applicable. However, viewed overall, the above tables outline what is considered to be an acceptable situation to enable not only the more than adequate protection of the Irish environment, but also by means of the exclusion thresholds to lessen the requirements on citizens, developers, and planning authorities when the likelihood of there being significant environmental effects is low.

8 RESPONSES TO THE STUDY BRIEF AND RECOMMENDATIONS

In this section responses are provided to the four topics listed under ‘Recommendations’ section of the Call for Tenders (see Annex (1)).

(A) “Whether or not the existing inclusion thresholds for the two development types under review are still appropriate? and if not, a recommendation for revised inclusion thresholds if required.”³⁴ and “recommendation for appropriate exclusion thresholds for each of the development types under review.”³⁵

The analyses undertaken as part of this study suggest that it would be appropriate to have inclusion thresholds (which already exist in the Regulations), but also to introduce exclusion thresholds.

The main reason for introducing exclusion thresholds is that below certain levels, the cases based analyses discussed above have shown clearly that although there is currently a statutory obligation on planning authorities to undertake screening for EIA regarding cases below the statutory inclusion thresholds, they have not shown a need for EIAs in very many cases. Planning authorities are in a good position to make the judgements which they make because know their areas very well; have access to planning, environmental and

³⁴ First bullet point in the Recommendations section in Annex (1).

³⁵ Second bullet point in the Recommendations section in Annex (1).

other expertise; have accumulated experience to draw on; and are fully aware that they are under an obligation set out in their Development and Local Area Plans and in terms of national legislation to protect the environment in their areas, and yet at the preliminary examination or screening stage they are concluding that there are no significant environmental impacts likely in these cases. Thus, it may be concluded that there is a strong case in principle for introducing exclusion thresholds. The specific levels of such thresholds which are suggested in this study are strongly based on cases analyses, i.e., on practice.

The suggested inclusion and exclusion thresholds are set out below within the Traffic Lights framework.

Residential Development (Clause 10(b)(i))

Red Light (inclusion threshold) – above 500 dwelling units
Orange Light (intermediate zone) – 250 to 500 dwelling units inclusive
Green Light (exclusion threshold) – below 250 dwelling units.

Urban Development (Clause 10(b)(iv))

(a) Business Districts

Red Light (inclusion threshold zone) – above 3ha site area
Orange Light (intermediate zone) – 1ha to 3ha inclusive
Green Light (exclusion threshold zone) – below 1ha.

(b) Other Built-up Areas

Red Light (inclusion threshold zone) – above 10ha site area
Orange Light (intermediate zone) – 5ha to 10ha inclusive
Green Light (exclusion threshold zone) – below 5ha.

(c) Elsewhere Areas

Red Light (inclusion threshold zone) – above 20ha site area
Orange Light (intermediate zone) – 5ha to 20ha inclusive
Green Light (exclusion threshold zone) – below 5ha.

(B) “Provide an opinion on whether any positive or negative implications are likely to arise, following the introduction of inclusion and exclusion thresholds for the development types under review.”³⁶

(a) Exclusion Thresholds

In the case of exclusion thresholds, there are both potential positive and negative implications for planning authorities, developers, businesses, and citizens, and of course the environment associated with establishing such thresholds.

³⁶ Third bullet point in the Recommendations section in Annex (1).

Positive Implications

In the case of the **planning authority** there would be improvements in efficiency associated with the project approval process, an issue of particular importance if an authority is experiencing staff shortages or high general workload pressures. Of course, freeing up staff time should have benefits regarding other aspects of the work undertaken in a planning department by enabling the department to focus on other more pressing or important issues.

From the point of view of a **developer** submitting an application there would be a reduced cost associated with delivering a project, a matter of significance from a citizen home purchaser's perspective provided the developer passed the savings on to their customers. Also, for a developer lowering of the level of uncertainty regarding the approval process would be a significant gain; higher levels of uncertainty normally resulting in increased pricing in order to cover the possibility of less than acceptable circumstances arising.

Many applications are submitted by **businesses** arising from their own individual business needs³⁷. They would not be knowledgeable regarding planning permission matters and in many/most cases would need to rely on professional inputs, which for a small business could represent a significant financial outlay. If there is no need for consideration of the application of the EIA processes, then the consultants' fees would likely be lower.

In the case of **citizens**, they would very likely be in the same position as businesses regarding understanding of EIA related requirements, and the elimination of the need for consideration of EIA matters would be an advantage.

It is appropriate to note that a significant proportion of planning applications which are submitted are for what may be regarded in many cases as relatively minor extensions or alterations to an existing building (in many cases existing dwellings) or involve the construction of a single new structure (e.g., dwelling house, shed, etc). Although the evidence provided in this study indicates that the probability of the applicant (e.g., a homeowner, business) having to provide an EIAR whether proposing an extension/alteration or a new structure is very low, it may be considered beneficial for the applicant if the likelihood of requiring an EIAR is removed.

In summary, the positive implications mainly relate to cost and time savings for all parties in the development process.

In the case of the **environment**, the implications of the introduction of appropriate exclusion thresholds are very likely to be very low, because the evidence base provided in this study indicates that developments within the suggested thresholds are very unlikely to have any significant effects on the environment in the judgement of the planning authorities concerned. It is important to note that protection of the environment in these exclusion zones does not rely exclusively on the presence of an EIA and an associated EIAR. In particular, when potential environmental impacts may exist there is always the opportunity for the planning authority to require as 'further information' a report which addresses the particular potential environmental issue of concern. The submission of such focussed reports which address particular environmental issues is widespread with many applications containing many such focussed reports, either submitted by the application him/her self or as a result of a 'further information' request. Another important reason why protection of the environment takes place is that in very many cases the applicant sets out mitigation measures to deal with potential negative environmental impacts, which in many (most) cases are acceptable to the planning authorities concerned. Alternatively, the planning authority can under the 'further information' procedure require information about

³⁷ The case by case analyses highlighted the relative frequency of businesses wishing to make use changes within existing structures, or wishing to make amendments or alterations to existing premises.

mitigation measures. It is also appropriate to mention that conditions associated with approval of an application invariably contain conditions which address issues of environmental concern.

Negative Implications

In the case of **planning authorities**, the establishment of exclusion thresholds could in theory create the possibility that due to the absence of a requirement for screening the authority may not give adequate, thorough attention to environment protection matters. However, as mentioned above, the authorities know their areas well, have access to professional expertise, have cumulated experience to draw on, and are fully aware of the requirement on them to protect the environment, all of which means that this possible negative impact would be unlikely to arise.

For **developers, businesses or citizens** possible negative impacts associated with having exclusion thresholds are most unlikely to be of any significance.

However, it is appropriate to note that the introduction of exclusion thresholds could possibly give rise to more opportunities for lodging appeals or undertaking litigation based on the argument that scrutiny of possible environmental impacts has not been adequate. This would place time, personnel, and possibly direct financial costs on the relevant parties, be they the planning authority, ABP, judicial system, developer, business or citizen. Appeals and litigation would of course result in delays regarding the implementation of the projects concerned and in some cases the abandonment of the projects themselves.

If in the view of ABP or the courts, projects should not proceed on environmental grounds, then this may be regarded as being beneficial regarding the environment. Alternatively, projects may be permitted to go ahead but with new or amended environmental protection conditions, which may be regarded also as being beneficial in environmental terms.

(b) Inclusion Thresholds

As in the case of exclusion thresholds, there are both potential positive and negative implications.

Positive Implications

The main positive implication of having inclusion thresholds which are set at appropriate levels is that the possible environmental implications of a project will be considered in a systematic, thorough, and fully rounded manner, and rigorous attention would be paid to mitigating measures where they may be necessary.

A benefit which may be identified is that the likelihood of appeals or litigation occurring as a result of lack of consideration of environmental issues is likely to be significantly reduced.

Negative Implications

The possible negative implications of inclusion thresholds, particularly if set at relatively low or excessively cautious levels would be the additional cost and time delays involved in producing applications when in practice EIA investigations are not really necessary and relevant environmental issues can be addressed by means of focussing directly on individual possible environmental effects through the submission of reports undertaken by experts in the relevant fields, and through the introduction of acceptable mitigation measures and conditions of approval.

General Comment

Based on the findings of this study, the consultant's experience, and the fact that the 2014 EIA Directive provides for Member States to set exclusion (and inclusion) thresholds, there can be no doubt that setting both types of thresholds (inclusion and exclusion) are both sound and legally acceptable measures.

However, the key issue is the levels at which the inclusion and exclusion thresholds are set. In this regard it is considered that the evidence based approach to determining suitable levels as adopted in this study provides a sound basis for the thresholds which are suggested in this report.

(C) "Report and advise on any issues arising during the course of research conducted."

Based on the investigations undertaken in this study a number of issues may be highlighted for consideration by the Department.

(a) Standardised Approach to Preliminary Examinations and Screening

The Office of the Planning Regulator provides guidance regarding preliminary evaluation and screening procedures. It is appropriate that all planning authorities apply such guidance and that they make the reasons for their decisions available to the public through their web sites as separate documents, in ePlan documentation or by some other appropriate means. This is not to imply that they do not adequately consider EIA matters but that there should be improvements in their manner of reporting on these matters.

(b) Definitions

As will be noted in the above discussions, a number of terms are not defined in legislation or in national guidance material, which creates opportunities for more or less divergent approaches to be adopted between planning authorities and uncertainty amongst those persons or entities submitting applications. It is suggested that consideration be given to providing guidance regarding definitions of the terms 'urban development', 'other parts of a built-up area', 'elsewhere' areas, and in the case of 'business districts' *'the predominant land use is retail or commercial use'*.

(c) Monitoring and Review

Regular monitoring and review of practice in the field covered in this study would represent an example of good practice. The fact that the Department is currently progressing a review initiative is thus to be welcomed.

Irrespective of the need for Member States to provide the specific information indicated in Article 12 of the Directive (clauses 12.1 and 12.2), it would be particularly appropriate in the years ahead for the Department to monitor relevant issues related to the application of the thresholds which, if any, may be adopted (with or without changes) by the Department arising from the suggestions set out in this study. Such information would enable the Department to make appropriate changes where necessary. Such a review(s) could be considered as being one of the important environment protection measures to be taken in Ireland, particularly in the light of climate and biodiversity changes which are already taking place and will continue to occur, possibly in even more severe ways in the future.

ANNEX (1) STUDY BRIEF AND RECOMMENDATIONS

Set out below are two extracts from the Call for Tenders.

STUDY BRIEF

Key Issues/Considerations:

1. Exclusion thresholds cannot be set so as to undermine the broad objective of the EIA Directive, which is to ensure that certain projects, depending on their size, location and nature, which may have significant effects on the environment, are subject to an EIA before development consent is granted.
2. When determining the scope of the individual project categories, regard should be had to the 'wide scope and broad purpose' of the Directive and its overall objective, which is to ensure protection of the environment and the quality of life.
3. Member States cannot establish thresholds which are incompatible with the obligations laid down in Articles 2(1) and 4(3) of the Directive.
4. Thresholds cannot be set so as to exempt whole classes of developments listed in Annex II from the obligation to carry out EIA.
5. The screening procedure should ensure that an EIA is only required for projects likely to have significant effects on the environment (also see recital 27).
6. Thresholds must be set by reference to the criteria listed in Annex III (also see recitals 27, 28 and 29).
7. Screening should only be carried out for those projects for which it is thought that a significant impact on the environment is possible.
8. How planning authorities/An Bord Pleanála approach screening for development types under review. For example, how do they apply the preliminary examination procedure provided for at articles 103 and 109 of the Regulations and what impact will this have on setting exclusion thresholds.

RECOMMENDATIONS

The main objective of this review is to report and provide advice on the following:

- Whether or not the existing inclusion threshold for the two development types under review is still appropriate? And if not, a recommendation for a revised inclusion threshold if one is required
- Recommendation for an appropriate exclusion threshold for each of the development types under review
- Provide an opinion on whether any positive or negative implications are likely to arise, following the introduction of inclusion and exclusion thresholds for the development types under review.
- Report and advise on any issues arising during the course of research conducted.

ANNEX (2) GENERALISED ZONE TYPES

(A) GZT CATEGORIES AS ADOPTED BY THE DEPARTMENT

PRIMARY SECTOR

In essence this high level GZT category is intended to provide for zones which deal mainly with exploiting the physical resource base.

Agriculture (P1) is a sub-category intended to provide for zones directed at farming and related activities.

Forestry (P2) would include for example zones where growing trees for commercial gain would be the main use. It would exclude zones for the protection of natural wooded areas as these zones would have a nature conservation or related intended main use.

Aquaculture and fishing (P3) would for example include zones which cover land or water areas which are intended to be used for fishing or aquaculture purposes.

Quarrying/mining (P4) is a sub-category to provide for zones where extraction of stone or aggregate is the main intended use.

Mixed/general primary sector uses, including rural (P5) is a sub-category intended for zones which have as a main purpose the provision of any two or more of the other listed Primary Sector purposes (agriculture, forestry etc.). Zones which fall into this sub-category would not indicate any preference between the zones which fall into the other listed sub-categories.

Other primary sector (P6) is a catchall sub-category which is intended to cater for any Primary Sector zones which do not fit well into any of the other sub-categories within this Primary Sector GZT category. It is not envisaged that this sub-category will be often used as in particular the mixed sub-category (P5) would cater for many of the zones which do not easily fall within the other sub-categories (i.e., P1 to P4).

COMMERCE / INDUSTRY / ENTERPRISE / ECONOMIC DEVELOPMENT

Commercial, retail would include any form of commercial or retail zone where the main aim is to sell goods or services to the public.

- **Commercial, retail (C1.1)** would provide for any zoning which has commercial and/or retail activities as the main purpose. However, retail warehouses would be excluded from this sub-sub-category.
- **Retail warehouse (C1.2)** given the prevalence of retail warehouse zonings and the particular conditions associated with this use, this type of zone is identified as a sub-sub-category.

Industrial, enterprise, employment refers to zones where manufacturing and the provision of related services are the primary intended uses.

- **Industrial, enterprise, employment (C2.1)** would provide for any zoning which has these uses as the main purpose. However general industrial zones would be excluded from this sub-sub-category.
- **General industry (C2.2)** zones would provide for industrial uses which could have a substantial amenity and other impact and thus this type of industry is specifically identified as a separate sub-sub-category. Sometimes the term 'heavy industry' is used to describe the types of industrial uses which would occur in this zone type.

Office, business/technology park and related (C3) is a sub-category for zones where office or technology/research facilities are the main intended uses.

Warehouse (C4) is a sub-category where the primary use would be the storage of goods, equipment etc. Retail warehouse zones are not included in this sub-category due to their significant retail function.

Tourism and related (C5) would for example include zones where the main uses would be hotels, marinas or other types of uses which are directed mainly at servicing tourists/holiday makers.

Mixed/general commercial/industrial/enterprise (C6) sub-category would cater for zones where there is a mix of one or more of the other specific sub-categories (C1 to C5) in a way where there is no clear preferences or predominance for any one of the uses indicated in these other sub-categories.

Other commercial/industrial/enterprise/economic development (C7) is a catchall sub-category intended to cater for any commerce/industry/enterprise/economic development use which does not fit into any of the other sub-categories C1 to C6. It may be expected that this sub-category would be infrequently used given the range of other sub-categories (C1 to C5) and the mixed sub-category (C6).

COMMUNITY SERVICES / FACILITIES

In essence this broad GZT category is intended to cater for the range of social or community services or facilities which are provided mainly but not exclusively by the public sector.

Education (S1) would for example include all types of zone where the land would primarily be used for teaching or training and would include any type school (pre-primary, primary, secondary), as well as land zoned for university, institute of technology or other post school proposes. The means of provision, public or private, is not a relevant factor when viewing zones in this sub-category.

Health and related (S2) would for example include hospitals and clinics, whether provided through public or private means.

Community facilities (S3) would for example include nursing homes, cemeteries, community halls and any other facility which are intended to provide some form of community service. Public or private delivery is not a factor in this case.

General public administration (S4) would for example include local authority or government department offices and non-commercial state agencies uses.

Mixed/general services/community facilities (S5) would include cases where the zone indicates a range of different possible uses of a community services/facilities nature (i.e. more than one of the S1 to S4 sub-categories).

Other community services/facilities (S6) is a catchall category which would probably only be used very occasionally but would provide for zones which provided some form of specific community service/facility which is not covered by the other categories (S1 to S5).

NETWORKS AND BASIC INFRASTRUCTURE/UTILITIES

In essence this GZT category is to provide mainly for the physical engineering services which are needed to support modern living and working.

Transport is a sub-category related to the movement of people or goods. It is one of the sub-categories which is subdivided into lower level categories (sub-sub-categories), mainly because of the very significant difference between the uses in these sub-sub-categories.

- **Road** (N1.1) would cover roads but also for example include service stations and bus depots. It would also include cases where 'proposed road' is indicated on a zoning map.
- **Rail** (N1.2) would in addition to rail lines include stations and marshalling yards.
- **Airport** (N1.3) would include landing strips. Major airports can be a source of considerable enterprise development. However the primary purpose of an airport zone is to provide for air travel and thus the zone should be categorised into this sub-sub-category.
- **Seaport/harbour** (N1.4) would for example include quays, loading/unloading areas and storage areas which are used mainly for goods storage. It would include facilities related to commercial fishing and docking of cruise liners or ferries, but would exclude marinas where the intention is to provide mainly for small pleasure craft. Seaports/harbours can provide for substantial amounts of enterprise activity but as the primary purpose is of a transport nature they should be categorised into this sub-sub-category.
- **Mixed general transport** (N1.5) provides for the case where a zone would have as a main use two or more of the above uses (i.e., of N1.1 to N1.4).
- **Other** (N1.6) is the catchall sub-sub-category which would be used when a zone intended to provide mainly for transport uses does not fit well into any of the other sub-sub-categories (i.e., N1.1 to N1.5).

Water/Wastewater is a sub-category intended to cater for any zonings which related mainly to the purification, storage and/or the distribution of water.

- **Water** (N2.1) would include reservoirs, processing plants, pump station areas. It would include dams where the primary purpose is as a source of raw water.
- **Wastewater** (N2.2) would provide for zones which relate to sewerage treatment works, pump stations or other related facilities.
- **Mixed/general water/wastewater** (N2.3) would apply when no distinction is made between water and wastewater related facilities.

- **Other water/wastewater (N2.4)** uses is the catchall sub-sub-category which may be expected to be used only infrequently given that virtually all water and wastewater related zones should be covered in one of the above three sub-sub-categories.

Gas and electricity

- **Gas (N3.1)** would provide for any zones which relate mainly to the storage, processing or distribution of gas.
- **Electricity (N3.2)** would provide for any zones which provide mainly for the generation or distribution of electricity. Wind farms, pump storage electricity generation facilities would be included into this sub-sub-category. If power line routes are designated as zones then they would fall within this sub-sub-category.
- **Mixed/general gas and electricity (N3.3)** would provide for the probably unlikely case of zones which provide for both gas and electricity uses.
- **Other gas and electricity infrastructure/facilities (N3.4)** is the catchall category to cater for any zones which relate mainly to gas and electricity matters but which fall outside of the sub-sub-categories N3.1 to N3.3.

Telecommunications (N4) would for example provide for zones which relate to telecommunications masts.

Solid waste (N5) would provide for example for zones where the main use would be solid waste disposal sites, incinerators, bring banks, etc.

Other networks and basic infrastructure/utilities (N6) is the catchall sub-category which may be expected to be used only infrequently given that virtually all network and services/utilities related zones should be covered in one of the other sub-categories or sub-sub-categories (N1 to N5).

RESIDENTIAL (R)

New/proposed residential, strategic residential reserve (R1) is a sub-category which applies where the zone relates only to undeveloped land where the intention is for residential development to take place.

Existing residential (R2). Some plans distinguish between residential zones where the land involved is undeveloped, and where there is existing housing. The zones related to this latter category are most frequently termed 'Existing Residential', or some very similar name. Such zones would be classified into this sub-category.

Residential, mixed residential and other uses (R3). This sub-category provides for cases where residential zones do not fall directly into one of the sub-categories R1 or R2, or when there is a distinct component of the zone which enables other residential type or related uses to occur in the zone. It is a catchall sub-category which could be used in the case of zones which have a primary or strong residential intention but which straddle the other residential sub-categories

Strategic residential reserve (R4). A number of plans identify areas which are intended for residential development at some future date. Normally no details regarding the density or form of residential development which should occur in these areas are set out in the Plan.

'GREEN' / RECREATION / CONSERVATION (G)

In essence this broad GZT category is intended for zones which cater for 'green', recreation and conservation related issues.

Open space, park (G1) would cater for zones where the intention is to retain areas as undeveloped and for mainly passive open space related activities. The open space/park areas could of course contain active play facilities such as children's play areas but these would be only a smaller component (say under 30%) of the overall area involved. Judgement calls may be required if the active component exceeds say 30% as to whether the zone falls within this category or the Active open space category (G4).

Walkway, cycleway, bridal paths (G2) is a sub-category for zones where the main intention is to provide for travel by foot, cycle or horse. They most frequently occur alongside rivers but could of course occur elsewhere. In some cases they occur as buffer corridors and could be classified into the sub-category G3 mentioned below, but in such cases it would be more appropriate to place these zones into this sub-category where there is specific mention of their role in relation to walking, cycling or horse riding.

The Conservation, amenity or buffer space, corridor/belt. landscape protection (G3) sub-category is intended for zones where the main aim is to provide some level of conservation, whether of biodiversity, visual amenity

or quite. Natura 2000 sites or other designations in terms of EU Directives would not be recorded as part of this GZT exercise as this is information which will be available in DevPlanGIS from other sources.

Active open space (G4) is a sub-category into which zones which provide for stadia, GAA pitches, golf courses, rugby or soccer fields etc. should be placed. If these facilities are part of a much larger open area zone then a judgement call is required to determine if the zone falls within this sub-category or the Open space, park sub-category (G1). As a general guide, if more than 30% but less than 50% of the area would be taken up with the facilities mentioned above then it is probably the case that the zone should be classified into this sub-category, with a judgement call being required to make the final determination. However, if more than 50% of the land area would be so taken up then the zone would definitely need to be classified into this sub-category.

Mixed/general 'green', recreation and conservation and other (G5). This catchall sub-category is intended to cater for those cases where a zone contains objectives which explicitly straddle two or more of the other sub-categories (G1 to G4).

MIXED USE (M)

Mixed Use, general development, opportunity/proposal site (M1) is a sub-category which is intended to cater for zones which are specifically mixed use in nature (e.g., named 'Mixed Use') or which although having some other name are in effect general mixed use zones (e.g., 'General Development'). In the case of Opportunity Sites or Proposal Sites a judgment would need to be made regarding whether or not the intention is to provide for a wide range of uses, or to give clear preference to a specific or more focused type of development (e.g., residential, commercial), in which case the opportunity/proposal site zone would be more appropriately allocated to one of the other GZT categories/sub-categories/sub-sub-categories.

City/Town/Village centre or central area (M2). This sub-category is intended for those zones which cover central parts of cities, towns or villages. In virtually all cases a mix of uses is encouraged in these zones.

District, neighbourhood centre (M3) is a sub-category into which various forms of zonings related to the establishment of mixed use nodes away from the central area.

Built up area (M4) is to cater for zoning designations which occur only occasionally and which are intended to cover the wide range of uses which occur in areas which have already been built. The 'Existing Residential' zones which occur in some Plans would not be allocated into this sub-category as they invariably have objectives which relate to protecting/enhancing only one objective, namely, residential amenity.

Other mixed uses (M5) is the catchall sub-category which can be used in the case of a zone which clearly has a mixed use objective but which for some reason does not fit easily into the above mixed use sub-categories (M1 to M4).

OTHER (O)

This is a final catchall category which would only be used if a zone did not fit comfortably into any of the other categories, sub-categories or sub-sub-categories. .

Strategic Reserve, white land (O1) is to cater for those cases where land is zoned for development at some time in the future but no objectives or specific controls are indicated. White land is sometimes the term used for land which falls into this sub-category.

General (O2) this is the final catchall sub-category which is intended to be the place where any zone which does not fit into any of the other sub-categories or sub-sub-categories can be allocated. Given the extensive nature of the overall GZT classification scheme set out above it is not expected that there would be many classifications into this sub-category.

(B) GZT CATEGORIES RELATED TO 'BUSINESS DISTRICT', 'OTHER BUILT UP AREAS', AND 'ELSEWHERE'

(i) **Business District Areas** are regarded as GZT zones:

- M1 - General development, opportunity/proposal site
- M2 – City/Town/Village Centre, Central Area
- M3 – District/Neighbourhood Centre;
- M4 – Built up area

- M5 - Other mixed uses
- C6 – Mixed General: Commercial/Industrial/Enterprises Uses;
- C7 – Other: Commercial/Industrial/Enterprise Uses;
- C1.1 - Commercial, retail
- C1.2 - Retail warehouse
- C2.1 – Industrial, enterprise, employment
- C2.2 - General industry
- C3 – Office, business/technology park and related
- C4 – Warehouse
- C5 – Tourism and related
- C6 – Mixed/general commercial/industrial/enterprise
- C7 - Other commercial/industrial/enterprise/economic development

(ii) **Other Built Up Areas** are regarded as GZT zones:

- R2 – Existing residential
- R3 – Residential, mixed residential and other uses
- S1 – Education
- S2 – Health related
- S3 – Community facilities
- S4 – General public administration
- S5 – Mixed/general services/community facilities
- S6 – Other community services/facilities
- N1.1 – Road
- N1.2 – Rail
- N1.3 – Airport
- N1.4 – Seaport/harbour
- N1.5 – Mixed general transport
- N1.6 – Other transport
- N2.1 – Water services
- N2.2 – Wastewater services
- N2.3 – Mixed/general water/wastewater services
- N2.4 – Other water/wastewater services
- N3.1 – Gas services
- N3.2 – Electricity services
- N3.3 – Mixed/general gas and electricity services
- N3.4 – Other gas and electricity infrastructure/facilities
- N4 – Telecommunications
- N5 – Solid waste
- N6 – Other networks and basic infrastructure/facilities
- G4 – Active open space

But *excludes*:

- P1 – Agriculture
- P2 – Forestry
- P3 - Aquaculture and fishing
- P4 – Quarrying/mining
- P5 – Mixed/general primary sector uses, including rural
- P6 – Other primary sector

- R1 – New, proposed residential, strategic residential reserve
- R4 – Strategic residential reserve
- G1 – Open space, park
- G2 – walkway, cycleway, bridal paths
- G3 – Conservation, amenity or buffer space, corridor/belt, landscape protection
- G5 – Mixed/general ‘green’, recreation and conservation and other
- O1 – Strategic land reserve, white land
- O2 – General other

(iii) **‘Elsewhere’** areas are regarded as all areas outside the GZT zoned areas which are considered to be part of Business Districts and Other Built-up Areas and a 500m buffer around the CSO towns and settlements defined areas.

ANNEX (3) TABULAR DATA

TABLE 1 – ABP STRATEGIC HOUSING DEVELOPMENT CASES: DETAILED BREAKDOWN

No. Units	No. Cases	No. EIARs	% EIARs
100 - 124	204	14	7%
125 - 149	153	2	1%
150 - 174	106	6	6%
175 - 199	89	7	8%
200 - 224	100	6	6%
225 - 249	66	7	11%
250 - 274	66	5	8%
275 - 299	49	16	33%
300 - 324	44	8	18%
325 - 349	54	23	43%
350 - 374	44	24	55%
375 - 399	14	4	29%
400 - 424	34	21	62%
425 - 449	38	18	47%
450 - 474	27	13	48%
475 - 499	29	13	45%
500+	175	175	100%
TOTAL	1 292	362	28%

TABLE (2A) – PLANNING AUTHORITY RESIDENTIAL CASES: DETAILED BREAKDOWN

No. Units Range	No. Cases	% Cases	No. with EIAR/EIS	% EIAR/EIS
1 - 24	2570	84%	8	0%
25 - 49	201	7%	0	0%
50 - 74	111	4%	5	5%
75 - 99	64	2%	6	9%
100 - 124	30	1%	1	3%
125 - 149	22	1%	1	5%
150 - 174	13	0%	2	15%
175 - 199	14	0%	3	21%
200 - 224	6	0%	1	17%
225 - 249	3	0%	0	0%
250 - 274	3	0%	0	0%
275 - 299	5	0%	1	20%
300 - 324	7	0%	1	14%
325 - 349	2	0%	1	50%
350 - 374	7	0%	3	43%
375 - 399	0	0%	0	NA
400 - 424	0	0%	0	NA
425 - 449	0	0%	0	NA

450 - 474	4	0%	2	50%
475 - 499	1	0%	1	100%
500+	2	0%	2	100%
TOTAL	3065	100%	38	1%

NOTE: Percentages are rounded to the nearest whole number.

TABLE (2B) – PLANNING AUTHORITY RESIDENTIAL CASES: SUMMARY TABLE

No. Units Range	No. Cases	% Cases	No. with EIAR/EIS	% EIAR/EIS
1 - 249	3034	99%	27	1%
250 -499	29	1%	11	35%
TOTAL	3063	100%	38	1%

NOTE: Percentages are rounded to the nearest whole number.

ANNEX (4) REFERENCES

- (1) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environment Impact Assessment: August 2018
- (2) Introduction to NLP by Niklas Donges: 2019 (An Introduction to Natural Language Processing (NLP) | Built In)
- (3) Word Embeddings Deep Dive – A hands-on-approach. (see Word Embeddings Deep Dive — A hands-on approach | by Sharvil | Towards Data Science)
- (4) Text Classification: What it is and why it matters. (see Text Classification: What it is And Why it Matters (monkeylearn.com))
- (5) EIA Traffic Lights Scheme - Planning Reports Analysis using NLP - Phase 2; CeADAR; May, 2022
- (6) EIA Traffic Lights Scheme – Planning Reports Analysis using NLP; February 2022
- (7) Office of the Planning Regulator PN02: Environmental Impact Assessment Screening; June 2021
- (8) Strategic Housing Development Scoping and Screening (IEA and AA): Prospective Applicants Guidance: SHD Scoping and Screening (EIA and AA) Prospective Applicants Guidance | An Bord Pleanála (pleanala.ie)
- (9) Local Area Plans: Guidelines for Planning Authorities: Department of Environment, Community and Local Government: 2013
- (10) Development Plans: Guidelines for Planning Authorities: Department of Housing, Local Government and Heritage; June 2022
- (11) Sustainable Rural Housing: Guidelines for Planning Authorities: Department of Environment, Heritage, and Local Government: April 2005
- (12) Sustainable Residential Development in Urban Areas: Department of Housing, Local Government and Heritage: May 2009
- (13) Planning System and Flood Risk Management: Guidelines for Planning Authorities: Department of Housing, Local Government and Heritage: November 2009
- (14) Appropriate Assessment of Plans and Projects in Ireland: Department of Environment, Heritage and Local Government: February 2019
- (15) European Communities (Good Agricultural Practice for the Protection of Waters) Regulations 2017