

Limerick City and County Council

Preparation of Draft County Limerick Noise Action Plan 2024-2028

Strategic Environmental
Assessment Screening and
Habitats Directive Assessment
Screening Report



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SEA Screening Report

1.1 Introduction

The Environmental Noise Directive (2002/49/EC) requires Member States to prepare a system for identifying sources of environmental noise and taking the necessary steps to “avoid, prevent or reduce noise exposure” (Limerick Noise Action Plan 2018-2023). The development of a Noise Action Plan (NAP) is an essential part of this system. NAPs are aimed at defining a common approach to avoid, prevent and reduce exposure to environmental noise and at protecting quiet areas in centres with a population greater than 100,000 and in the open countryside. NAPs are strategic in nature and it should be noted that they are not designed to deal with nuisance noise complaints.

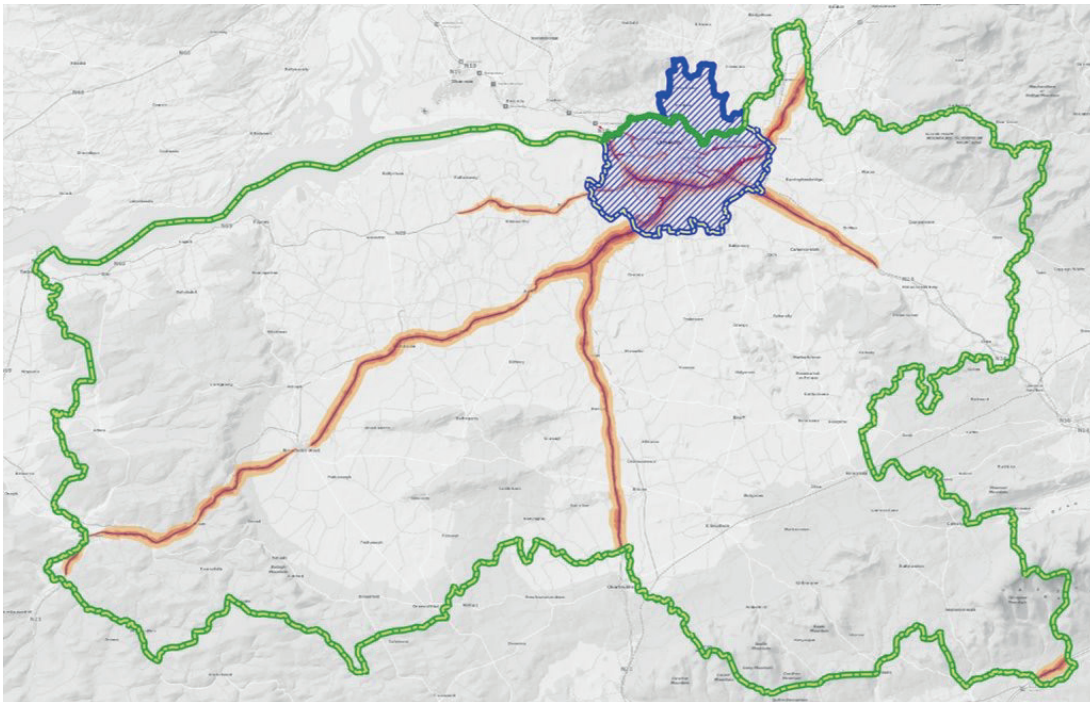


Figure 1. Gives an overview of noise sensitive locations in County Limerick based on strategic noise mapping for the calendar year 2021. All are associated with traffic noise.

Preparation of the new action plan: The County Limerick NAP 2024-2028 is a follow on to the earlier 2018 to 2023 Noise Action Plan. It should be noted that in the previous plan, both the Limerick City and County Limerick areas were dealt with in one NAP. The approach has altered this time around in that there are now two NAPs being prepared, one for the City area and the other for the county areas. This screening relates to the County Limerick NAP.

SEA thresholds: The mandatory population threshold for Strategic Environmental Assessment is currently 5,000 people. The mandatory area threshold for SEA is 50km². While on the face of it, it may seem as if the threshold is exceeded, the purpose of the NAP has to be considered. This is to manage noise issues as they relate to road traffic in particular and to minimise its effects on human health. The effects of the NAP are expected to be beneficial in that it offers a template for the management of noise and offers guidance in how to deal with its effects. It is not considered that the Noise Action Plan should be subjected to full Strategic Environmental Assessment because of the beneficial effects of noise management.

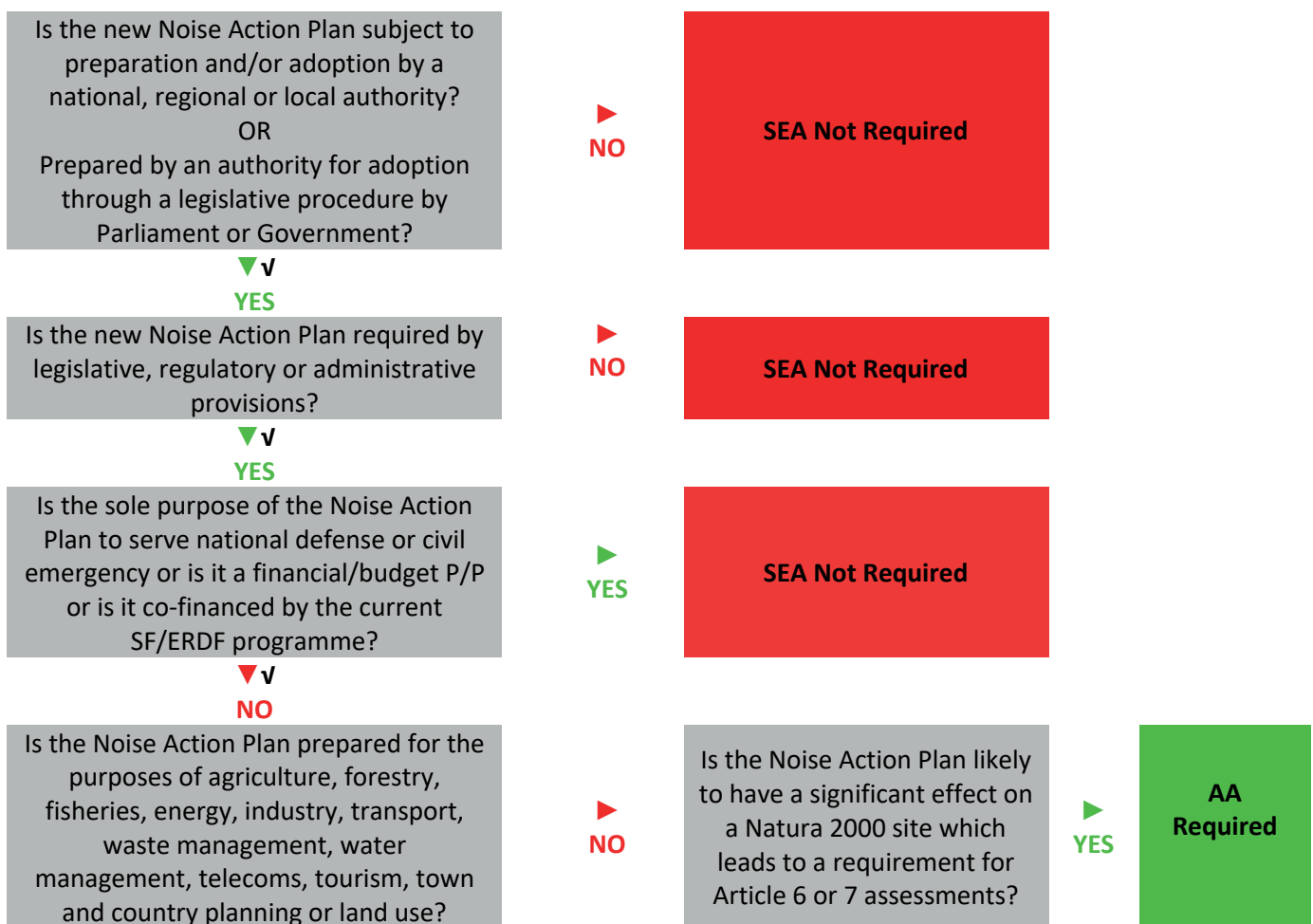
1.2 Screening Statement

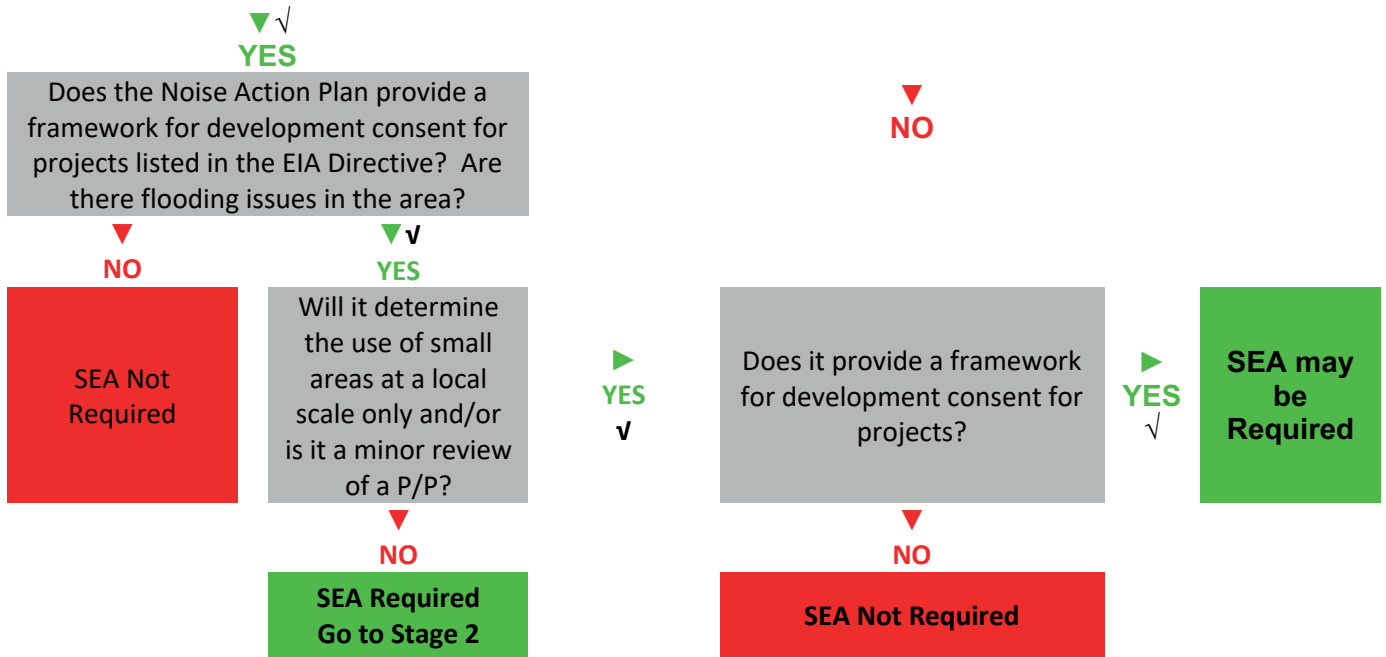
The Planning and Development (Strategic Environmental Assessment) Regulations 2004-2011 (S.I. No. 436 of 2004, SI 201 of 2011) require case-by-case screening of individual plans and programmes based on the criteria in Schedule 2A to the Planning and Development Regulations, 2011. These criteria must be taken into account in determining whether or not significant effects on the environment would be likely to arise.

Stage One - Pre-Screening

The first step in determining whether the County Limerick NAP would require an SEA involves a pre-screening check. The pre-screening check places the new NAP in context with consideration of how the review fits in with larger policy issues. Stage 2 assesses the environmental significance of the review by examining how it fits in with policy guidance documents and its possible environmental effects.

Figure 2. Pre-Screening Decision Tree.





Stage Two - (A) Environmental Significance Screening

The application of environmental significance criteria is important in determining whether an SEA is required for small plans/policies or modifications to plans/policies. Annex II (2) of Directive 2001/42/EC sets out the “statutory” criteria that should be addressed when undertaking a screening assessment.

Criteria for Determining the Likely Significance of Environmental Effects

Characteristics of the Plan/Programme

i. the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;

The preparation of the new NAP seeks to update the content of the NAP 2018- 2023 and in this regard it should be noted that two NAPs are being prepared in order to ensure specific responses to noise issues in both City and County areas. Only one had been prepared before. Six noise hot spots (now termed Priority Important Areas) were detected in County Limerick, these being Abbeyfeale, Adare, Croom, Newcastle West, Oola and Patrickswell.

ii. the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;

The following are the NAPs, which provide the planning policy background to the Limerick City and County Council. As noted in the NAP itself the original directive giving rise to the noise management plan is the Environmental Noise Directive (2002/49/EC). It should be said from the outset that the NAP will influence documents from the Limerick Development Plan level downwards. Other documents above this in the hierarchy of plans may mention noise but the directive rather than the NAP itself influences these.

- **National Planning Framework 2040:**

This states on page 129 in National Policy Objective 65 that it will “promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans”. Though the NPF is being reviewed this reference remains current.

- **Regional Economic and Spatial Strategy (RSES):**

On page 152 Regional Policy Objective 131 states, “it is an objective to promote the pro-active management of noise where it is likely to have significant adverse impacts on health and the environment. It is also an objective to support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans for major urban centres as considered appropriate”.

The preparation of the new NAPs is in accordance with Policy EH P7 Environmental Noise of the Limerick Development Plan (2022 to 2028): which states “it is a policy of the Council to proactively manage environmental noise, where it may have a significant adverse impact on the health and quality of life of communities in Limerick and to support the aims of the Environmental Noise Regulations, through the development and implementation of Noise Action Plans”.

iii the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;

The purpose of the NAP is to manage environmental noise and has identified a number of noise sensitive areas within County Limerick where traffic noise will have to be managed for the sake of human health. This is an essential part of building communities where health issues are taken into account and quality of life is improved as a result. The management of noise in areas of high traffic noise contributes to human health and the sustainability of those communities. As noted above, the new NAP has identified six where the impact of environmental noise effect human health which reflects the work carried out as part of the strategic noise mapping and noise monitoring.

iv environmental problems relevant to the plan or programme;

The problem with which the NAP will deal is “road traffic noise from major roads”. As outlined above it will deal with areas that have vehicle movement of over three million per annum. Chapter 6 of the NAP has identified locations for possible action in dealing with noise issues.

v the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).

The NAP is a direct result of the transposition of the Environmental Noise Directive (2002) and resulting Environmental Noise Regulations (2006 as amended).

Characteristics of the Effects and of the Area Likely to be Affected

- i. the probability, duration, frequency and reversibility of the effects

The purpose of the NAP is to manage noise in the areas identified in the plan. The effects of noise in these locations has been established with a monitoring programme which has been in place since 2012. While the NAP will not reverse the creation of noise, through the implementation of new development management guidance and control measures, it will seek to minimise the effects of road generated noise in these locations.

- ii. the cumulative nature of the effects

Studies “on long-term exposure to road, rail traffic and aircraft noise have used different research methods but in general reveal a link between noise exposure and raised blood pressure, heart attacks and strokes” (Münzel, T., Gori, T., Babisch, W. and Basner, M. (2014). The NAP in Chapter 7 in particular mentions Mitigation, Prevention and Protection Measures to reduce the exposure of existing and future populations to noise, which reduce cumulative effects in longer term.

- iii. the trans-boundary nature of the effects

While roads such as the N18 lead to Clare and the N24 leads to Tipperary the noise issues associated with the routes will be covered by the neighbouring counties NAPs. There is also a separate NAP being prepared for the Limerick Metropolitan area (Agglomeration of Limerick), which will deal with road and railway traffic and industrial noise in the Agglomeration.

- iv. the risks to human health or the environment (e.g. due to accidents)

The possible risks to human health have been outlined in the cumulative effects section in (ii) above.

- v. the magnitude and spatial extent of the affects (geographical area and size of the population likely to be affected)

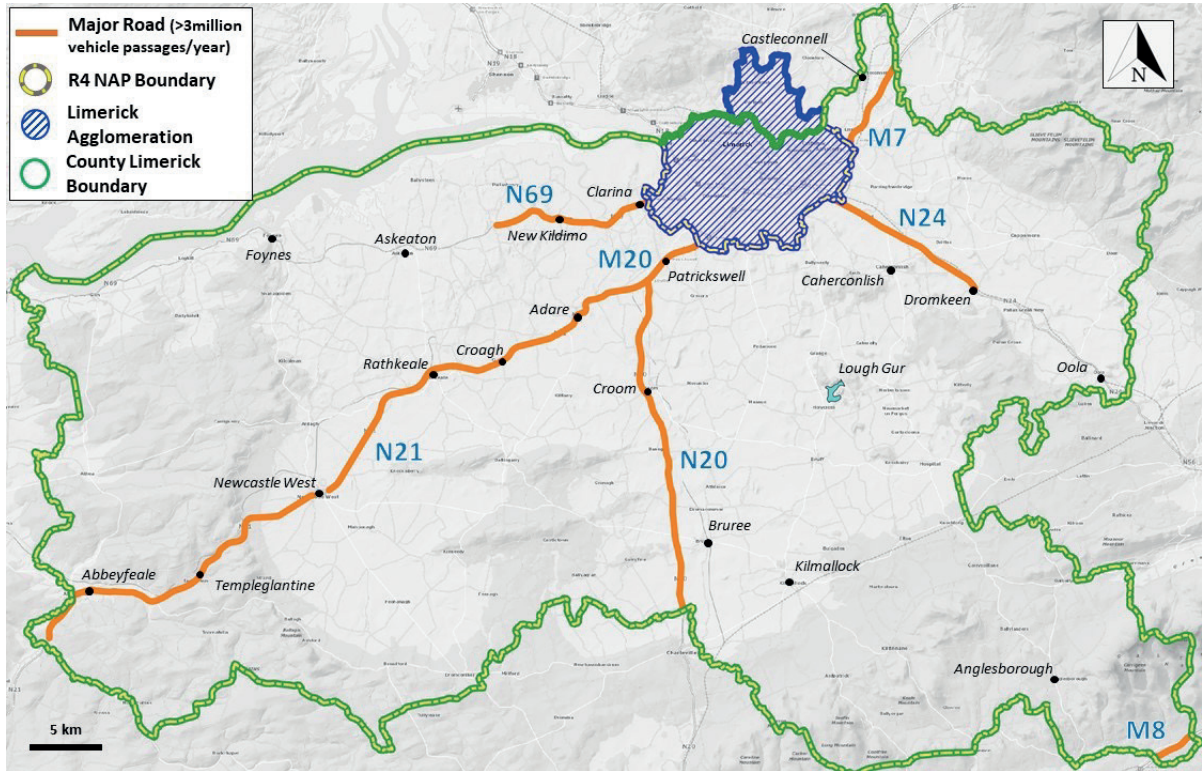


Figure 3. Showing the Agglomeration of Limerick and the roadways in County Limerick which qualified for strategic noise mapping.

Figure 3 presents roads that qualified for strategic noise mapping. These areas are judged noise sensitive. The population that would be affected would be those within a zone of up to 500 metres from the roadway. The mitigation measures in Chapter 7 of the NAP are designed for use in these locations.

- vi. the value and vulnerability of the area likely to be affected due to
- special natural characteristics or cultural heritage;

The measures in the NAP when applied to the planning process may involve additions to development management guidelines in terms of buffers or specific requirements in terms of design and construction. These would be guided by the parts of the NAP that relate to heritage and architectural protection which ensure that the provisions of the NAP would not impinge on local heritage either natural or cultural.

- exceeded environmental quality standards or limit values;

The purpose of the NAP is to ensure that the nuisance effects of noise are managed and “to identify locations where action may be needed to prevent additional members of the community from being exposed to unfavourable noise conditions, reduce undesirably high noise levels and protect the acoustic environment where favourably low noise levels are present”.

- intensive land-use;

The purpose of the NAP is not to intensify land usage but to manage the effects of noise emissions from areas with high traffic usage. It seeks to minimise the noise effects of more intensively used areas of the County's transport network.

1.3 Stage Two – Summary, Conclusions and Recommendation

No strategically significant environmental problems can be identified in relation to the preparation of the County Limerick Noise Action Plan that would make the preparation of an Environmental Report necessary. This is for the following reason: The NAP exists for the purpose of managing noise emissions from routes with over three million traffic passages per annum. In dealing with noise emissions, it is anticipated that there will be environmental benefits. It is not anticipated that there would be any significant negative environmental effects from the implementation of the plan and as such, the preparation of an Environmental Report would not be necessary.

Following the screening process whereby the specific context of the preparation of the NAP has been assessed against the environmental significance criteria as contained in Annex II (2) of the SEA Directive, it is concluded that a Strategic Environmental Assessment is not required for Limerick Noise Action Plan 2024-2028.

2.1 Appropriate Assessment Screening: Introduction

This is an Appropriate Assessment Screening of the preparation of the County Limerick Noise Action Plan (NAP) 2024-2028 in accordance with the requirements of Article 6(3) of the EU Habitats Directive (92/43/EEC).

The existing NAP was originally been prepared in 2008 and ran to 2013 and was followed by a second and third NAPs which ran from 2013-2018 and 2018-2023. The preparation of the new NAP needs to be screened for 'Appropriate Assessment'. Based on the Methodological guidance on the provision of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, a 'Screening Matrix' and a 'Finding of No Significant Effects Matrix' have been completed. The conclusions were that the preparation of the new noise action did not require progression to the preparation of a Natura Impact Statement and does not require an Appropriate Assessment.

The principal consideration for an Appropriate Assessment would be if the LAP were likely to have significant effects on a Natura 2000 site – Special Areas of Conservation and Special Protection Areas (SAC's and SPA's) are Natura sites.

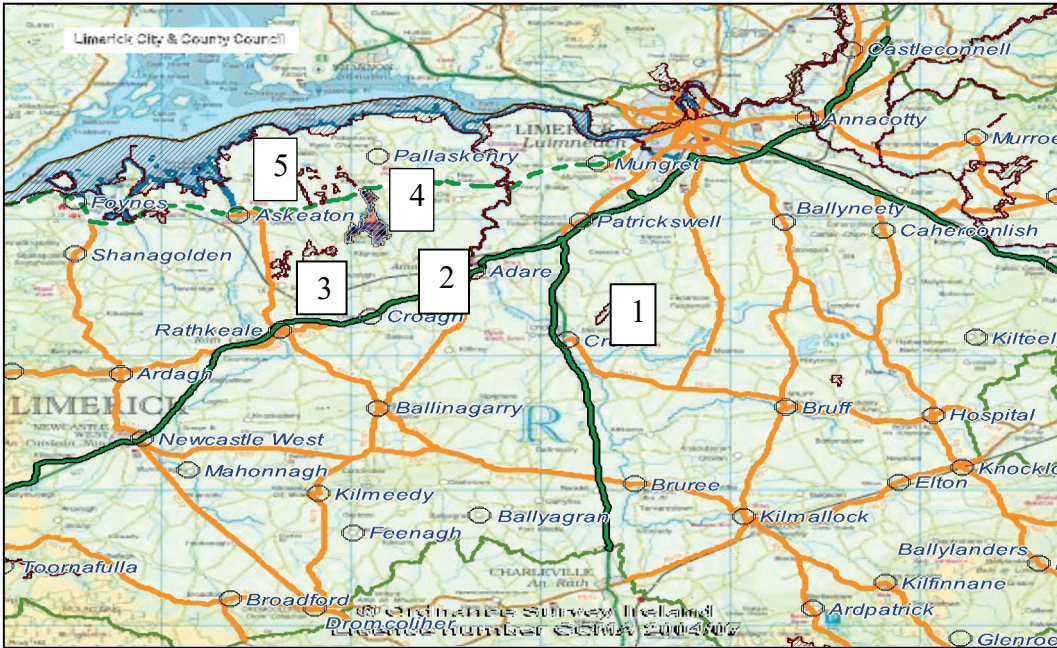


Figure 4. Showing the Tory Hill SAC (1) site to the east of the M20 and the Lower River Shannon (2) to the north- west. The other SAC sites listed below within a radius of 22 km are also shown numbered 3 and 5 (Askeaton Fen Complex) and 4 (Curraghchase).

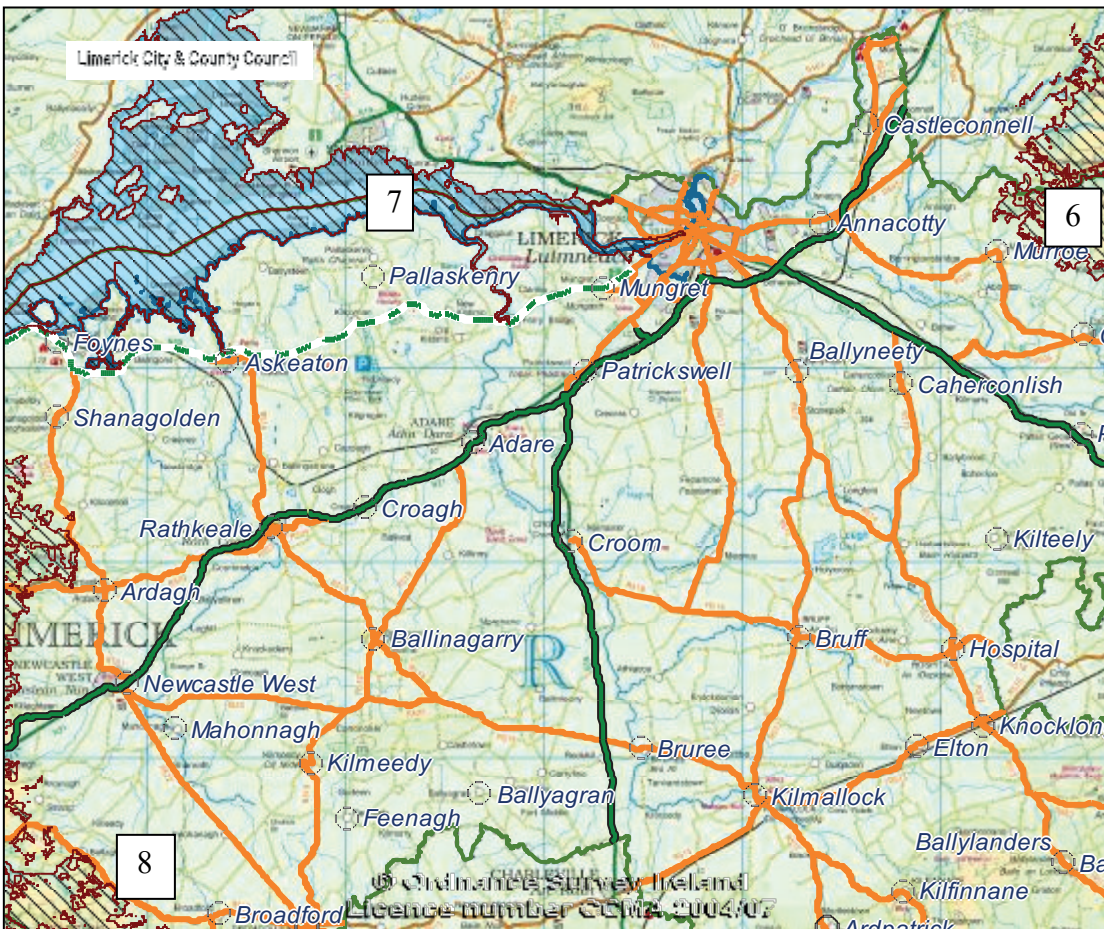


Figure 5. showing Special Protection Area sites within 16km of the N20 and N21 Junctions. The numbering sequence continues from Figure 4.

The approach taken in the screening is to look at the areas that have been shown to have issues with environmental noise and which were identified as areas for monitoring in the last Noise Action Plan. These areas are shown in Figure 3 of the SEA screening document above.

2.2 Screening Matrix

Brief description of the plan:

Preparation of the County Limerick Noise Action Plan 2024-2028. This is the successor to the Noise Action Plan 2013-2018. The NAP focuses on the County Limerick area and on traffic noise. A separate plan is being prepared for the Metropolitan Area (Agglomeration of Limerick). This will run for the same time period.

Brief description of the Natura 2000 sites:

The River Shannon and Fergus SPA (004077) is located downstream of Adare where the Maigue is designated - see Figure 1, No. 7. The Lower River Shannon SAC (002165- see Figure 1 No 2) site is approximately five km upstream of the Plan area and to the northwest of the Croom. The SAC site has been selected because of a range of riparian habitats and species such as wet woodlands, tidal mudflats, estuaries and for species such as otter, salmon and lamprey. Maintenance of high water quality is an important factor in ensuring the preservation of these habitats.

The River Shannon and Fergus SPA (Figure 2 No. 7) site has been selected because of its importance for wintering and migratory wild fowl. The site comprises all of the estuarine habitat west from Limerick City and it is the mud flats with its invertebrate community which is of particular importance as a feeding area for migratory wildfowl.

Askeaton Fen Complex SAC site (002279- see figure 1 No. 5) contains Calcareous fens and Alkaline fens is adjacent to the N69.

Curraghchase woodlands SAC site (0000174-see Fig 1 No. 4) a woodland site designated for the Lesser Horseshoe bat, is adjacent to the N69.

Tory Hill SAC (000439- see Figure 1 No1) is an isolated wooded limestone hill situated about 3 km north east of Croom and the N20, Co. Limerick. Lough Nagirra is located within the Tory Hill SAC and has a thick fringe of Common Reed (*Phragmites australis*) and, in association with it, areas of alkaline fen and calcareous fen vegetation referable to the Caricion davallianae alliance with Saw Sedge (*Cladium mariscus*). Both of these fen types are listed on Annex I of the E.U. Habitats Directive, the latter with priority status. Tory Hill is also designated for areas of orchid-rich calcareous grassland, a habitat that is listed with priority status on Annex I of the E.U. Habitats Directive; it is found on the eastern side of the hill and on its summit.

The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161-see Figure 2 No 8) is a very large site centred on the borders between the counties of Cork, Kerry and Limerick.

The site consists of a variety of upland habitats, though almost half is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier.

The Slieve Felim Hills SPA (004165) is an upland site with forestry, upland grassland and fragmented peat-land habitats (Number 6 on Figure 2). This is within 12km of the N24, lies to the northeast, and is designated for the Hen Harrier.

Describe the individual elements of the plan (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site:

The NAP seeks to minimise the effects of Environmental noise, in this case that from road traffic. Birds sing differently in response to road noise, which potentially affects their ability to attract mates and defend their territory, (Gentry et al 2017). The study found that a species of North American flycatcher sings shorter songs at a lower range of frequencies in response to traffic noise levels. The researchers suggest traffic noise reduction...is a viable option for mitigating this effect. Studies from Queen University Belfast (2019) also find that man-made noise including traffic intreferes with birds communications which can make finding mate difficult and for species, that flock might hinder how the flock functions as calls might remain unheard or only partially heard. .

European species such as Robin (*Erithacus rubecula*) are also affected with singing periods being moved to less busy periods such as nightfall (Nemeth et al 2012) . This is particularly evident in lit areas, where this has the effect of extending perceived day light hours.

Bearing in mind the main purpose of the NAP is to reduce environmental noise exposure; the effects of the implementation of the NAP are expected to be beneficial.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

- **Size and scale;**

The routes shown in Figure 3 are those where the effects of traffic noise are judged to be greatest.

- **Land-take;**

There is no land take from Natura 2000 sites. The Noise Action plan does not call for the creation of new routes that might encroach on to Natura 2000 sites. Any works that might take place would be within the footprint of existing roadways.

- **Distance from Natura 2000 site or key features of the site;**

See Brief Description of Natura 2000 sites above.

- **Resource requirements (water abstraction etc.);**

No policies within the NAP indicate the need for abstraction of water from any designated site.

- **Emission (disposal to land, water or air);**

Noise itself can be viewed as an Emission. The purpose of the NAP is to minimise the effects of

environmental noise. Bearing in mind its effects on bird song it is considered that the reduction in noise levels brought about by the NAP will have beneficial ecological effects, though these would be likely to be local and close to the roadways in question.

Excavation requirements;

Any excavation, which may result from the contents of the NAP i.e. construction of berms or other noise management structures will not occur within any Natura 2000 sites.

- **Transportation requirements;**

It is not considered that any of the policies put forward in the NAP or traffic flows resulting from the NAP will not have any effect on any designated sites. Routes will remain unchanged and will not encroach further on any Natura 2000 sites.

- **Duration of construction, operation, decommissioning, etc.;**

The lifespan of the NAP will be four years, i.e. from 2024 to 2028.

- **Other**

None.

Describe any likely changes to the site arising as a result of :

- **reduction of habitat area:**

None – the NAP relates to traffic noise from previous established routes. Improvement in noise levels will be localised and confined to within 300m of so of existing roads.

- **disturbance to key species;**

None - the NAP is about controlling noise emissions and any reductions would have beneficial, though local, ecological effects.

- **Habitat or species fragmentation;**

While noise is a factor in the overall fragmentation effects of roadways, the physical structures of the roadway, its open spaces and traffic movement are considered far greater in terms of possible habitat fragmentation. In short, noise is not considered as significant a factor as the others outlined above.

In considering habitat or species fragmentation it might be worth looking at the Curraghchase SAC site that has been designated for the Lesser Horseshoe Bat. Before considering the bats, associated with the Curraghchase Special Area of conservation designation close to the N69, attention was given to the possibility of the road proving a barrier to other mammals. While road mortality does play part in the population figures of wider ranging mammals such as foxes, otter

and on occasion badgers, no remains of road casualties were found during the course of three visits to the area of the proposed works. In terms of the Special Area of Conservation designation, it is the effects on the Lesser Horseshoe Bat that has to be considered. No bats were sighted, though studies by the Vincent Wildlife Trust indicates that bat calls may be masked by traffic noise, who in turn avoid the area. In a situation such as this a reduction in traffic noise, possibly through traffic calming or altering road surfacing would be expected to have beneficial effects.

Literature consulted regarding the effects of roadways on bats also find that they act as a barrier to bat activity and that bat activity of all species is considerably diminished in their vicinity. This can be due to light noise and chemical pollution (Berthinussen and Altringham 2011, p.6). Any reduction of noise effects because of the NAP would make the situation better but would be unlikely to overcome the barrier effects of the open road corridor and the lights of passing traffic. In short, the Noise Action Plan itself would not cause any barrier effects but should lessen the cumulative effects of roadways as barriers in their own right.

- **reduction in species density;**

None- all of the sites are at a distance from the lands that will be the subject of the review.

- **Changes in key indicators of conservation value**

No projects giving rise to significant adverse changes in key indicators of conservation value for Natura 2000 sites are likely given that policies are in place in the Limerick Development Plan to control possible ex-situ effects. In overall terms, the reduction of noise emissions that would result from the implementation of the NAP would be welcome, particularly for species such as birds and bats that depend heavily on sound for communication and foraging. It is likely that such benefits would be localised.

- **Climate change:**

The NAP is supportive of more sustainable forms of transport such as walking and cycling, all of which have the potential to cut carbon emissions. In this the NAP shares the aims of the Active Travel Section of the Council.

Describe any likely impacts on the Natura 2000 site as a whole in terms of:

- **interference with the key relationships that define the structure of the site;**

None.

- **interference with key relationships that define the function of the site;**

None.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

- **loss;**

Not applicable.

- **Fragmentation;**

Not applicable.

- **Disruption;**

Not applicable.

- **Disturbance;**

Not applicable.

- **Change to key elements of the site (e.g. water quality etc.);**

Not applicable.

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts are not known.

Not applicable.

Name of Project or Plan:	Preparation of the County Limerick Noise Action Plan 2024-2028.
County Limerick Noise Action Plan SEA AA Screening April 2024	<p>The River Shannon and Fergus SPA (004077) is located downstream of Adare where the Maigne is designated - see Figure 1, No. 7. The Lower River Shannon SAC (002165- see Figure 1 No 2) site is approximately five km upstream of the Plan area and to the northwest of the Croom. The SAC site has been selected because of a range of riparian habitats and species such as wet woodlands, tidal mudflats, estuaries and for species such as otter, salmon and lamprey. Maintenance of high water quality is an important factor in ensuring the preservation of these habitats.</p> <p>The River Shannon and Fergus SPA (Figure 2 No. 7) site has been selected because of its importance for wintering and migratory wild fowl. The site comprises all of the estuarine habitat west from Limerick City and it is the mud flats with its invertebrate community which is of particular importance as a feeding area for migratory wildfowl.</p> <p>Askeaton Fen Complex SAC site (002279- see figure 1 No. 5) contains Calcareous fens and Alkaline fens is adjacent to the N69.</p> <p>Curraghchase woodlands SAC site (0000174-see Fig 1 No. 4) a woodland site designated for the Lesser Horseshoe bat, is adjacent to the N69.</p> <p>Tory Hill SAC (000439- see Figure 1 No1) is an isolated wooded limestone hill situated about 3 km north east of Croom and the N20, Co. Limerick. Lough Nagirra is located within the Tory Hill SAC and has a thick fringe of Common Reed (<i>Phragmites australis</i>) and, in association with it, areas of alkaline fen and calcareous fen vegetation referable to the Caricion davallianae alliance with Saw Sedge (<i>Cladium mariscus</i>). Both of these fen types are listed on Annex I of the E.U. Habitats Directive, the latter with priority status. Tory Hill is also designated for areas of orchid-rich calcareous grassland, a habitat that is listed with priority status on Annex I of the E.U. Habitats Directive; it is found on the eastern side of the hill and on its summit.</p> <p>The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161-see Figure 5 No 8) is a very large site centred on the borders between the counties of Cork, Kerry and Limerick.</p> <p>The site consists of a variety of upland habitats, though almost half is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier.</p> <p>The Slieve Felim Hills SPA (004165) is an upland site with forestry, upland grassland and fragmented peat-land habitats (Number 6 on Figure 5). This is within 12 km of the N24 and lies to the north east and is designated for the Hen Harrier.</p>

Description of the Project or Plan	As given in Screening Matrix above.
Is the Project or Plan directly connected with or necessary to the management of the site (provide details) ?	No.
Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?	None.
The Assessment of Significance of Effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 sites:	Bearing in mind the main purpose of the NAP is to reduce noise exposure; the effects of the implementation of the NAP are expected to be beneficial.
Explain why these effects are not considered significant:	The NAP is designed to deal with noise emissions from routes that have over three million traffic passages per year. Effort to minimise noise from these locations would have beneficial ecological results. Traffic noise is a pollutant and has been implicated in reduced numbers of passerines breeding near busy roads (Reijnen. R. & Foppen, R. 1994)
List of Agencies Consulted: Provide contact name and telephone or email address:	AA Screening Reports are being sent to: <ul style="list-style-type: none"> • SEA Section, Environmental Protection Agency • Planning System and Spatial Policy Section • Department of the Environment, Community and Local Government • Department of Agriculture, Fisheries and Food • Department of Communications, Energy and Natural Resources • Development Applications Unit, Department of Arts, Heritage and the Gaeltacht,

Data Collected to Carry out the Assessment			
Who carried out the Assessment?	Sources of Data	Level of assessment	Where can the full results of the assessment be accessed and viewed
Heritage Officer, Forward Planning Section, Limerick County Council.	Existing NPWS. Site Synopses. Site visits during plan preparation process.	Desktop study, site visits	With plan documentation on request.

References

Anna Berthinussen and John Altringham (2012) The effect of a major road on bat activity and diversity. *Journal of Applied Ecology* 49 pages 82-89.

Bontadino F, Schofield H and Naef-Daenzer B (2002) Radio tracking reveals that lesser horseshoe bats (*Rhinolophus hipposideros*) forage in woodland. *Journal of Zoology London*.

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Reijnen. R. & Foppen, R. (1994) The effects of car traffic on breeding bird populations in woodland. I. Evidence of reduced habitat quality for willow warblers breeding close to a highway. (*P/Z-/ /O.FClOrolcl/zLibl i-r cippl*). *Ecol.* 31. 85-94.



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