



An
Bord
Pleanála

Inspector's Report ABP.300889-18

Development	Demolition of existing dwelling and construction of a storey and a half replacement dwelling, plot entrance, wastewater treatment system and associated site works
Location	Boolaglass, Co. Limerick
Planning Authority	Limerick City & County Council
Planning Authority Reg. Ref.	17/366
Applicant(s)	Martin Berkery
Type of Application	Planning permission
Planning Authority Decision	Refuse permission
Type of Appeal	First Party
Appellant(s)	Martin Berkery
Observer(s)	Simon White, Nantenan.
Date of Site Inspection	8 th June 2018
Inspector	Mary Kennelly

1.0 Site Location and Description

- 1.1. The site is located in the townland of Boolaglass, approx. 4km to the south of Askeaton on the R518. It is located on the western side of the regional road with frontage defined by a stone wall. There is an existing derelict house on the site, at the northern end, close to the road. It is a rural area which is predominantly agricultural but there are a number of single houses and farmhouses scattered around the countryside in the vicinity.
- 1.2. The site area is given as 0.164ha. The site is rectangular in shape and is bounded to the north by a mature hedge and treeline and to the south and east by a timber post and rail fence. The existing cottage is single storey with accommodation in the roofspace. It is located close to the road.

2.0 Proposed Development

- 2.1. It is proposed to demolish the existing derelict cottage and to erect a one and a half-storey dwelling which would be set further back from the road (approx. 17m). The floor area is given as 160.4sq.m and the ridge height as 6.9m. The dwelling would be accessed by means of a new entrance from the R518. The site layout plan (submitted to the PA on 11/5/18) shows a wastewater treatment plant located to the south and a vehicular entrance at the northern end of the site. A revised site layout plan was submitted in response to a FIR from the P.A. showing the proposed entrance further to the south.

3.0 Planning Authority Decision

3.1. Decision

The planning authority decided to refuse permission for one reason which was based on the failure of the applicant to demonstrate the suitability of the site for the effective treatment and disposal of domestic effluent, due to the lack of adequate percolation properties of the soil.

3.2. Planning Authority Reports

3.2.1. Planning Reports

The design of the dwelling was generally considered to be acceptable apart from a proposed first floor windows and balcony, which should be omitted and replaced by standard window design. It was noted that the site is in an area of extreme groundwater vulnerability. It was also noted that there is a dip in the road to the north of the site entrance. It was considered that further information should be requested in respect of a tertiary wastewater treatment system and a proposal to remove vegetation that would interfere with sightlines. It was also noted that there was an objection from a neighbouring resident, Simon White.

3.2.2. Other Technical Reports

Environment – the site is located in an area of extreme groundwater vulnerability with a depth to bedrock of only 1.8m and the groundwater status is designated as 'Poor' under the Water Framework Directive. The density of septic tanks in the area is also shown as high. Reference was made to the EPA Code of Practice which states that in general, WWTPs do not provide for the removal of significant amounts of nitrogen or phosphorous, as Phosphorous removal is dependent of the natural mineralogy of the soil into which the effluent is being discharged and there is a finite capacity in the soil. The applicant was therefore requested to submit a tertiary treatment system.

3.3. Prescribed Bodies

No submissions on file.

3.4. Third Party Observations

An objection was received from Simon White on the grounds of road safety, the creation of an illegal entrance, inadequate site size and drainage conditions for wastewater treatment and disposal on site without contamination of nearby wells. He also raised issues regarding land ownership.

3.5. Further Information Request

The following matters were requested as FIR on 15th June 2017:-

- Having regard to the road alignment, the applicant was requested to demonstrate that sightlines of 160m are available in both direction, details of any setback alternative to the front boundary and treatment of same, and letters of consent from all relevant landowners where such alternatives are to be employed.
- Having regard to the location of the site in an area of extreme groundwater vulnerability, the 'Poor status of the groundwater, the high density of septic tanks in the area, and the inability of WWTPs to remove significant amounts of Nitrogen or Phosphorous, it is requested that a proposal for the installation of a tertiary treatment system be submitted.

3.6. Response to Further Information Request

Baxter Design (on behalf of the applicant) responded to the FIR on 25th October 2017. It was stated that the site entrance has been relocated further to the south following a site meeting with the Council's engineer, to take advantage of the recently increased width provided by realignment and widening work currently being undertaken by the P.A. to the carriageway opposite the site. This would provide for a clear line of sight of 90m over the existing stone walls to north and south without the need for modification to the boundary. In respect of the second item, it was advised that a revised EPA Assessment form and tertiary treatment system was submitted with the response. However, correspondence on the file indicates that the revised documents regarding the wastewater treatment system was not enclosed. This led to a request for clarification of F.I (dated 28/11/17).

3.7. Response to Clarification Request

The response of 5/12/17 indicated that a WWTP with a polishing filter would be installed, which included a revised site plan and cross section. However, the P.A. considered that tertiary treatments such as that proposed do not provide nutrient

removal and are not suitable where phosphorous is an issue in groundwater. It was therefore recommended that permission be refused on these grounds.

4.0 Planning History

None on site

Adjacent sites

08/1603 – planning permission refused for a single dwelling on site immediately to the north. Four reasons for refusal. The first three reasons related to traffic hazard and visual amenities by reason of the restricted stopping distances and need to remove mature hedgerows in order to achieve sightlines, (copy of decision attached)

5.0 Policy Context

5.1. Development Plan

Limerick County Development Plan 2010-2016 (as extended)

In terms of Rural Settlement Policy, (3.9), the site is located in a Structurally Weak Area, but also has an existing dwelling house on the site, which it is proposed to replace.

Objective RS03 – Single Houses in Structurally Weak Areas stem the decline and strengthen Structurally Weak Areas. Any demand for permanent residential development should be accommodated subject to meeting normal planning and environmental criteria.

Objective RS05 – Refurbishment/Replacement of a Traditional Rural Dwelling seeks to refurbish rather than replace where possible.

Objective EH06 – integrate development into the landscape and retain trees and existing landscape features where possible. Only in exceptional circumstances should roadside boundaries be removed.

IN P8 Strategic Regional Road Network – protect investment and prevent premature obsolescence, improve road safety and capacity.

5.2. Natural Heritage Designations

The site is within 5km of four European Sites. The distances are Askeaton Fen Complex SAC (Site Code 002279) - less than 200m to east; Curraghchase Woods SAC (Site Code 000174) - c. 5km to east; Lower River Shannon SAC (Site code 002165) - c. 4km to north; and Barrigone SAC (Site Code 000432) - c. 6km to northwest.

6.0 The Appeal

6.1. Grounds of Appeal

The first party appeal was submitted by Baxter Design Planning Consultancy on behalf of the applicant. The main points raised may be summarised as follows:

- The applicant disputes the reason for refusal and states that it is incorrect, as evidenced by the report by Mr. Alan Collins, Engineer. It is claimed that the proposed wastewater treatment system has been clearly demonstrated as suitable in accordance with the statutory requirements, including compliance with same.
- The information submitted to the P.A. included a completed EPA Assessment, which had been included with the original application and a subsequent amendment was submitted with the Further Information Response. All technical specifications for the tertiary treatment system design, layout and cross sections were supplied to Limerick County Council.
- The T Test result was 19.9, the depth to rock was 1.8m (no water table encountered) and the site is characterised as R2², which requires that there be a minimum of 1.2m of undisturbed soil under the invert level of the polishing filter. This was taken into account in the design of the system.
- The P.A. sought FI on the basis of the high levels of nitrogen and phosphorous in the area and stated that, given that there was an existing dwelling on the site, a tertiary treatment system was required. However, when this information was submitted, the P.A. still refused permission on the basis of inadequate percolation characteristics. However, it has been clearly

demonstrated that there is adequate percolation as a T-test of 19.9min/25mm. was achieved

- The original proposal for a secondary system was designed in accordance with the Code of Practice. Thus, even this system is considered adequate and the tertiary treatment is considered to exceed the requirements of the site in terms of the code of practice.

6.2. Planning Authority Response

The P.A. has not responded to the grounds of appeal.

6.3. Observations on the Grounds of Appeal

Observations were submitted by Simon White on 5th March 2018. It should be noted that the observation is accompanied by a number of photographs and also by a report from a Hydrogeologist in relation to the proposed wastewater treatment system. The issues raised may be summarised as follows:

Road safety – the location of the proposed entrance on the R518 poses a serious risk to road safety. In respect of the originally proposed entrance, the presence of high stone walls restrict visibility to the south and to the north. In addition, there is a ‘hump’ in the road followed by a sudden dip, which reduces visibility in a northerly direction to 80 metres. It is claimed that significant alterations to the stone walls of neighbouring properties would be required to obtain the required 160m sightlines from the entrance.

Revised site entrance location - The proposed revised entrance is even more hazardous and seems to rely on a misinterpretation of the NRA TD41/42 guidance in that stopping distances of 160m are required, not 90m as shown on submitted drawings.

Non-compliance with NRA Road Safety Standards – it is claimed that the TD 9/07 NRA Road Design Manual was misinterpreted in terms of where the measurements should be taken from. Furthermore, it is claimed that the submissions on behalf of the applicant misrepresent the situation on the ground in that the photomontage

does not reflect the existing height of the stone wall (comparison photos attached to demonstrate issues).

Precedent – permission was refused for a house on site to north (08-1603) on grounds of traffic hazard and loss of mature hedgerow required to achieve sightlines.

Wastewater treatment proposals inadequate – the request for additional information on how the applicant proposes to deal with the issue of nitrogen and phosphorous discharge has not been addressed. In light of the ground conditions on site, the limited area of the site, the status of the groundwater being extremely vulnerable, and the location in respect of an important SAC, it is considered that the risk of enrichment of groundwater is extremely high.

Water supply – the proposed wastewater treatment system with polishing filter will make it difficult to find a place within the site to sink a well without endangering it in terms of contamination. Thus, the risk of chemical pollution of any water well is high. The proposed location for the well is adjacent to the northern boundary, but this would require permission from neighbouring property owners to drill for a well here. Furthermore, the distance required from a polishing filter is 60m, which makes it difficult to see where the well would be placed without risk of contamination and as such, raises questions as to whether the site can be provided with an adequate water supply.

Historical and other matters – the site has not been occupied for at least 20 years. The previous owner widened the only entrance which was pedestrian and was required to reinstate the wall by the P.A. However, the current owner broke down the wall too at the same location and created a wider entrance, which is contrary to the P.A. requirements. The applicant was required to reinstate the wall but the rubble stone was not replaced and a second entrance was opened to provide enough space for the applicant to drive his transit van in and out of the site without permission.

Impact on Askeaton Fen Complex SAC – the Hydrogeologist report considers that given the proximity of the site to this groundwater-dependent European site (200m), the extreme vulnerability of the groundwater which has poor status, and the karstified nature of the bedrock, effluent from the polishing filter could reach the SAC in days once released into the environment.

7.0 Assessment

7.1. It is considered that the main issues arising from the appeal are as follows:-

- Rural Settlement Policy
- Road safety
- Provision of water and wastewater services
- Impact on Nature Conservation sites

7.2. Rural Settlement Policy

7.2.1 The site is located in a 'Structurally Weak Area'. These are described in the CDP (3.9.1) as areas which generally exhibit characteristics such as persistent and significant population decline as well as a weaker economic structure based on indices of income, employment and economic growth. Under **Objective RS03**, any demand for permanent residential development should be accommodated, subject to meeting normal planning and environmental criteria. **Objective RS05** encourages the refurbishment rather than the replacement of traditional houses in the countryside, and states that permission will normally only be granted for a replacement dwelling, where it is demonstrated that it is not reasonable capable of being made structurally sound or otherwise improved, where the building is not of architectural merit. Although the building appears to be of some architectural merit, no information has been submitted relating to its history.

7.2.2 The applicant has provided justification for replacing the dwelling on the basis of a structural survey which it is stated found the building to be "structurally unsafe and not suitable for renovation due to the condition of the structure, lack of foundations and general non-compliance with the requirements of the Building Regulations:2012 Part A". It should be noted however, that reference is made to a structural engineer's report, which was not included in the documents provided by the P.A. Notwithstanding this, the P.A. has accepted that the dwelling can be replaced, and I would agree that given its small scale, any improvement works would probably result in an overly large extension and other alterations to bring it up to modern standards. Thus, the replacement of the dwelling is acceptable in principle, subject to compliance with normal planning considerations.

7.3. Access and Road Safety

- 7.3.1 The site is located on a long straight stretch of the R518, which is a strategic regional road (Table 8.2 CDP), linking Askeaton and Rathkeale, each of which is a Tier 3 town in the County Development Plan. There is currently no vehicular access to the site, as the traditional dwelling was accessed by means of a pedestrian gate only. The proposed development, as originally submitted (May 2017), indicated the creation of a new vehicular access at the location of the pedestrian access point. However, this was subsequently revised, following a request for FI, to a new location some 16.5m further to the south. As the design speed of the road is 80m, the sightlines required are 160m in either direction.
- 7.3.2 The drawings submitted in May 2017 indicated that 160m sightlines could be achieved, in accordance with the Design Speed of 85kph for this Regional Road. The Board should note that the guidance on design speeds, stopping distances and sightline visibility contained in NRA DMRB (Vol 6. Sections 1 and 2) and NRA TD41-42/11, as quoted in the submissions from the applicant, has been replaced by TII Publication DN GEO-03031 – Rural Road Link Design (June 2017). However, the P.A. did not accept the applicant's proposal and sought further information. Following a site meeting with the P.A.'s engineer, a revised site entrance was proposed. However, the revised drawings submitted on 3rd November 2017 indicated that sightlines of 90m could be achieved, without the need to alter any existing roadside boundary stone walls.
- 7.3.3 It is not clear why the sightline standard to be achieved was reduced to 90m. Notwithstanding this, the Observer, Mr. White, has submitted several photos and information disputing the ability of either of the proposed entrance locations to meet the required 160m sightlines. This is mainly due to the height of the stone walls on the site boundary and in the vicinity of the site, the presence of mature vegetation alongside the boundaries both within and on the approach to the site, and the presence of a dip in the road adjacent to the site. Having inspected the site and reviewed the original and revised drawings, I would agree with the Observer that it is unlikely that sightlines of 160m could be achieved given the constraints outlined above.

7.3.4 I note that Development Plan policy objectives **IN P7** and **IN P8** seek to preserve the capacity and improve the safety of the road network, particularly the Strategic Regional Road Network, which is considered to have been compromised over the years (8.2.6.1). **Objective IN 016** seeks the prevention of development involving new vehicular access onto strategic regional roads unless the site is located within the 50kph zone, is required for the occupation of a member of the farming community or immediate family members of long term landowners, or is of such strategic importance that there is no reasonable alternative. **Objective EH 06 (c)** seeks to resist the removal of substantial lengths of roadside boundaries. Where an alternative, suitable site is available for the development, applicants should consider such an alternative on the basis that avoids the necessity for widespread boundary removal. Only in exceptional circumstances should roadside boundaries be removed.

7.3.4 In light of the policies and objectives referred to in 7.3.4 above, it is considered that the provision of a vehicular access as proposed, at this point on this strategic regional road, would give rise to a traffic hazard, which would be contrary to the said policies and objectives to seek the improvement of road safety and capacity. The site is not located within the 50kph, is currently for sale and does not therefore comply with the requirements of IN 016, and would necessitate the removal of mature trees and hedgerows and some traditional stone walls along the boundary of the site and adjacent sites in an attempt to achieve the required sightlines. Even if these measures were taken, I am not convinced that the sightlines could be achieved due to the sharp dip in the road, which obscures views of the entrance from the approach, particularly from the north. It is acknowledged that the site contains the remains of a derelict house, which means that Rural Housing Need policy does not apply. However, this is constrained by the need to comply with normal planning criteria, of which the provision of safe access is one. In addition, the site is not currently served by vehicular access.

7.3.5 In conclusion, it is considered that the proposed development would result in the creation of a new vehicular access onto the R518, which is a Strategic Regional Road, which would generate additional traffic turning movements at a point in the road where sightlines are restricted in both directions and where the speed limit is 80kph. It has not been adequately demonstrated that the sightlines of 160m in each

direction can be achieved given the dip in the road and without the removal of substantial lengths of roadside boundaries and vegetation. The proposed development would, therefore, contravene Objective IN 016 and EH 06 of the current Development Plan for the area.

7.4. Provision of Services

- 7.4.1 It is proposed to provide a proprietary wastewater treatment plant, the effluent from which was initially to be discharged to a standard percolation area in the south-western corner of the site. This was upgraded to a polishing filter providing tertiary treatment, at the request of the P.A. However, following the receipt of the further information, the Environmental Engineer advised that such a system would not be capable of removing phosphorous from the effluent, which is a problem in the area. The P.A. reports also indicate that there are a number of concerns regarding the ability to safely dispose of wastewater on this site and in the area. Firstly, the groundwater vulnerability is rated as 'Extreme'. This means that the rate at which pollutants can reach the ground water is quite high and is exacerbated by the presence of rock outcrops within and adjoining the site. Secondly, the area is underlain by karst limestone and is designated as a Regionally Important Karstified Aquifer, which means that the rate at which pollutants can travel underground is also likely to be quite high. Thirdly, the groundwater body has been designated as 'Poor Status' under the Water Framework Directive. Fourthly, the size of the site is very small, which does not allow much room to absorb the pollutants within the site on a long-term basis. Fifthly, there is a high density of septic tanks in the vicinity which gives rise to the potential for a cumulative effect.
- 7.4.2 Many of the above matters could more than likely be addressed by means of a tertiary wastewater treatment system, such as that proposed. However, the issue of the disposal of nutrients, such as phosphorous, which the P.A. has identified as a problem in this area, is an additional matter which is unlikely to be adequately addressed by means of a domestic scale tertiary system. The small scale and the infrequent or variable inflows means that the system would be unlikely to sustain the necessary level of operational efficiency to successfully remove the nutrients. This type of system would require a very high level of management and monitoring, which is unlikely to be available at a remote domestic location. The EPA Code of Practice

(2009) also states that soils (including where polishing filters have been installed), have a finite capacity to remove phosphorous. The restricted site area would also make it difficult to find a suitable location for a well which would also comply with the separation distances from the percolation area and polishing filter.

7.4.3 I would agree with the P.A., therefore, that the site is not suitable for the effective disposal of domestic effluent and that it has not been adequately demonstrated that the proposed development would not be prejudicial to public health. Given the Extreme groundwater vulnerability, the Poor Status of the groundwater body, the constraints within the site and the proximity of the site to the Askeaton Fen Complex SAC (within 200m), it is considered that the proposed development should be refused on these grounds.

7.5 Appropriate Assessment

7.5.1 The P.A. reports screened out appropriate assessment. However, as noted in the previous section of my report, the site is located approximately 200m from a Natura 2000 site, namely, Askeaton Fen Complex cSAC (002279). Given the distances involved, and as the site is located in an area, which is underlain by karstified limestone where groundwater can travel quickly, and a groundwater body which is of 'Poor status' and is rated as Extreme vulnerability, it is considered that appropriate assessment issues cannot be ruled out.

7.5.2 I have noted the comments from the Executive Scientist of the P.A., (Simon Jennings, 10/01/18), which advised that phosphorous is an issue in the groundwater due to over-enrichment, that tertiary treatment systems such as that proposed do not remove nutrients and that, in his opinion, there is no practical solution for removing nutrients on domestic sites. I have also noted the contents of the Report from Richard Langford (Hydrogeologist), which accompanied the observation on the grounds of appeal from Mr. White, which stated as follows:

“The site is located within 200m of a SAC, and within 235m of an open body of water within the Ballymorrisheen Marsh (which is within the SAC). This was not noted in the Site Characterisation Report.....The SAC is located downgradient of the site, and possibly hydraulically downgradient of the site. The presence of Askeaton Fen Complex SAC so close to the site is significant, as the SAC is classified as a groundwater dependent terrestrial ecosystem (Fen) under the

Water Framework Directive, which depends on a constant supply of groundwater to sustain the rare and protected habitats within the fen complex....”

Reference was made to the ‘Poor Status’ classification and to the deleterious effect on the SAC of further enrichment of groundwater discharging to the fen. Mr Langford concluded that while the proposal to include tertiary treatment is to be welcomed, no effort has been made to reduce nitrogen and phosphorous from the wastewater effluent. He stated :-

“Given the karstified nature of the underlying bedrock aquifer, effluent from the polishing filter could reach the SAC in days, or hours, once released into the environment”.

7.5.3 The Site Synopsis states that the SAC is designated for two habitats, Cladium Fens (which is an Annex I Priority Habitat) [7210] and Alkaline Fens [7230]. The Conservation Objectives are listed on the NPWS website as follows:

7210 - to maintain the favourable conservation condition of Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* in Askeaton Fen Complex SAC, which is defined by certain attributes and targets (listed).

7230 – to maintain the favourable conservation condition of Alkaline Fens in the Askeaton Fen Complex, which is defined by certain attributes and targets.

The fen habitats are stated to require high groundwater levels and drainage can result in the drawdown of the fen groundwater table. It is further stated that the fens receive natural levels of nutrients from water sources, but are generally poor in nitrogen and phosphorous, with the latter tending to be the limiting nutrient under natural conditions. Thus, the targets include maintenance/restoration of natural or semi-natural drainage conditions (as far as possible) and maintenance of appropriate water quality, particularly pH and nutrient levels, to support the natural structure and functioning of the habitat.

7.5.4 As previously noted, the site is located in an area of Karst limestone, where the groundwater vulnerability rating is Extreme and with a groundwater body which is classified as ‘poor status’ The report from the P.A.’s Executive Scientist also highlighted an issue with high phosphorous levels in the groundwater locally, which he believed could not be adequately removed by means of the proposed WWTP. Given that the SAC is a groundwater-dependent ecosystem, whereby the

Conservation Objectives include a target for maintenance of appropriate water quality, including nutrient and chemical levels, it is considered that there is a likelihood that there could be indirect effects on the SAC, either alone or in combination with other developments in the area, which could result in a significant effect on the European site, in view of those Conservation Objectives.

7.5.5 It is considered that should the Board be minded to grant permission, a NIS should be requested, as significant effects on the European Site, in view of its Conservation Objectives cannot be ruled out. However, should the Board be minded to refuse permission, it is considered that this issue should be included as a reason for refusal. Given that this is a new issue, the Board may wish to issue a notice to the applicant inviting comments on the matter. In this regard, it is noted that a Section 131 Notice was issued to the applicant following the receipt of the Observer's submission, which raised the issue of the likely effects on the SAC, but the applicant's response was received out of time.

8.0 Recommendation

8.1. It is recommended that planning permission be refused for the reasons and considerations set out below.

9.0 Reasons and Considerations

1. The proposed development would result in the creation of a new vehicular access onto the R518, which is a Strategic Regional Road, which would generate additional traffic turning movements at a point in the road where sightlines are restricted in both directions due to the substandard road alignment and would necessitate the removal of substantial lengths of roadside boundaries and mature vegetation. The proposed development would, therefore, endanger public safety by reason of traffic hazard and obstruction of road users, would contravene Objectives IN 016 and EH 06 of the current Limerick County Development Plan 2010-2016 (as extended) and would be contrary to the proper planning and sustainable development of the area.
2. Having regard to the density of dwellings served by bored wells and individual wastewater treatment systems in the vicinity of the site, to the drainage

characteristics and vulnerable nature of groundwater in the area, the Board is not satisfied on the basis of the documentation provided with the planning application and appeal, that the site can be drained satisfactorily by means of the wastewater treatment system proposed, or that safe and efficient water supply can be provided on site. The proposed development would, therefore, present an unacceptable risk of water pollution, would be prejudicial to public health and would be contrary to the proper planning and sustainable development of the area.

3. On the basis of the information provided with the application and appeal and in the absence of a Natura Impact Statement the Board cannot be satisfied that the proposed development individually, or in combination with other plans or projects would not be likely to have a significant effect on European Site No. 002279, Askeaton Fen Complex SAC, or any other European site, in view of the site's Conservation Objectives. In such circumstances, the Board is precluded from granting permission.

Mary Kennelly
Senior Planning Inspector

28th June 2018