



An
Bord
Pleanála

Inspector's Report PL 03 248121

Development	Construction of a Dwelling with on-site wastewater treatment and garage.
Location	Caheraderry, Lahinch, Co. Clare.
Planning Authority	Clare County Council.
P. A. Reg. Ref.	16-588
Applicant	Joseph Roche.
Type of Application	Permission.
Decision	Refuse Permission.
Type of Appeal	First Party Appeal
Appellant	Joseph Roche
Date of Site Inspection	5 th May, 2017
Inspector	Jane Dennehy

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1.0 Site Location and Description

- 1.1. The site which has a stated area of 2,000 square metres is located to the north of O'Brien's Bridge and north east of Lahinch on a local secondary route. (LS 5118.) There are dry limestone walls on the field boundaries and evergreen hedging up to two metres in height along the rear south site boundary. It is an elevated site which falls in level steeply from south to north downslope towards the road frontage and the level on of the ground which is low lying on the northern side of the road falls away towards the Aughyvaceen river to the north east. A single storey dwelling is located on the lands to the east and another dwelling is located on the opposite side of the road slightly to the west of the site frontage.

2.0 Proposed Development

- 2.1. The application lodged with the planning authority on 21st July, 2016 indicates proposals for construction of a single storey dwelling and a detached garage positioned towards the rear of the site. The total stated floor area is 159 square metres. A septic tank and percolation are shown to the front of the dwelling. Included with the application is a completed site characterisation form. Access is shown towards the west of the centre of the site frontage onto the public road. The application is also accompanied by a copy of the applicant's birth certificate.
- 2.2. In response to a request for further information the applicant submitted revised site layout and site section drawings showing the dwelling positioned forward towards the north and further downslope, details of excavation to reduce the ground level and inverts for the proposed percolation area to address concerns indicated in the additional information request about effluent migration towards the public road, revised percolation test results, a landscaping plan and confirmation that water supply is to be sourced from the public mains.

3.0 Planning Authority Decision

3.1. Decision

By order dated, 7th February, 2017, the planning authority decided to refuse permission on the basis that the planning authority is not satisfied that there is sufficient vertical percolation to render the site suitable for disposal of foul effluent and that the proposed development would be prejudicial to public health and in be in conflict with the provisions of “*Waste Water Treatment and Disposal systems serving single dwellings*” EPA., 2009 having regard to the depth of the T Test percolation tests, stated depth of subsoil and the gradient across the site.

3.2. Planning Authority Reports

3.2.1. Planning Officer

The final report of the planning officer indicated satisfaction with the further information submission on the proposed development with the exception of the details provided for the arrangements for proposed effluent treatment and disposal. It is concluded, as recommended in the report of the environmental scientist that it had not been demonstrated that risk of effluent migration towards the public road would not occur.

3.2.2. Environmental Scientist.

The final report of the environmental scientist indicates a recommendation that permission be refused due to the concerns about the capacity of the site for vertical percolation. (T tests had been carried out at a depth of -0.15 to -.55 metres) It is indicated that a T test at or about 800 mm or deeper below ground level is required according to the EPA Code of Practice, a P test as being only suitable for testing horizontal movement. According to the report, as vertical movement potential is not demonstrated in the application, safe migration of effluent off the site without impact on public health, to the environment cannot be established leading to risk about ponding of partially treated effluent on the public road, surface waters or the lawns within the site.

4.0 Planning History

- 4.1. There is no record of a recent planning history at the site and in the immediate environs other than an application for a dwelling, garage a septic tank on the site by the applicant which was withdrawn further to a request for further information and prior to determination of a decision.

5.0 Policy Context

5.1. Development Plan

The operative development plan at the time of the determination of a decision by the planning authority was the Clare County Development Plan, 2011-2017. The site is not located within areas designated as “Areas of Special Control”, and is located within a “settled landscape”.

On the basis of examination of the recently adopted Clare County Development Plan, 2017-2023, (Map B) the site location is not located within areas designated as “Areas of Special Control”, being north of a rural area under strong pressure. It is also located within a “settled landscape”.

6.0 The Appeal

6.1. First Party Appeal

- 6.1.1. An outline of the Appeal was received from Michael Duffy on behalf of the applicant on 6th March,2017 is set out below:
- The application accords with statutory legislation, with evidence as to satisfactory treatment of effluent. The EPA Code of Practice has no legal standing.

- The planning authority did not correctly interpret the EPA Code of Practice and there is no evidence of properly informed, engineering based assessment of the application and further information submission which were prepared by Mr Duffy, a chartered civil engineer who stands over his assessment. The suitability assessment demonstrates capability for water treatment by means of septic tank, percolation and discharge to groundwater.
- Percolation tests are not intended to characterise subsoil at depth or elsewhere but verification of the characterisation of subsoil. These tests should not be used to determine direction of flow of groundwater. In examination of trial holes flow paths can be identified. Testing additional to the requirements was undertaken and there is no danger of migration of effluent onto the road. The design which is satisfactory does not require importation or restoration of soil and a raised or percolation area or polishing filter if proposed would require designation mitigation to avoid lateral discharge which does not arise.

6.1.2. The appeal submission includes extracts from the EPA Code of Practice on Trial Hole Assessment, Percolation testing and associated guidance on design (EPA Guidelines) and includes extracts from Development Management Planning Guidelines 2007.) It is contended that the decision to refuse permission is in conflict with the EPA guidance, and that that internal reports from local authority sections should not include recommendation as to whether permission should be granted or refused. An assessment of key points rather than repetition of a recommendation in an internal report is required of the planner with no other parties recommending to grant or refuse of permission ensuring consistency in approach to assessment of planning applications.

6.2. **Planning Authority Response**

6.2.1. A submission containing a statement prepared by the environmental scientist was received from the planning authority on 22nd March, 2017. It is stated in it that the applicant has not adequately addressed the concerns about horizontal migration of effluent and it is requested that the decision to refuse permission be upheld.

6.2.2. The Environmental Scientist in his statement notes some incomplete details in the site assessment and according to his statement:

- the soil is classifiable as clay which has minimal percolation properties which reduce further with depth. A minimum of 1200 mm of suitable permeable aerated soil is required for treatment and dispersal from the percolation trench. The applicant proposes a percolation trench at 400 mm below ground. With testing at 550 mm below ground level only 150 mm of suitable soil has been shown to exist and this indicates highly unsuitable soil. This is a 'non dilatant' finding that demonstrates that water will not move through the soil.
- A 'T' test would be likely to fail or have an extremely high value. (A 't' value of over 90 indicates unsuitability for discharge to the ground according to the EPA guidelines.) A 'T' test / percolation test does not indicate direction of groundwater flow. A test at 550 mm may prove vertical movement but at 550 mm it is indicative of horizontal movement through top soil and may prove some vertical movement at that high level. The applicant was offered the opportunity to establish a viable T value on the site but a T test at the appropriate level was not undertaken.

It is concluded that as it has not been demonstrated that wastewater water can be treated and disposed of satisfactorily there is no need to establish whether the treatment system fits on is a fit for the site. It was therefore recommended that permission be refused due to high probability of partially grated effluent migrating down the slope, emerging on the lawn or on the public road.

6.2.3. Further Submission of the Appellant/Applicant.

A further submission was received on 2nd May, 2017 from the applicant's agent, Michael Duffy included with which are some extracts from the EPA Code of Practice and a GSI flowchart. According to the submission there are some misunderstandings in the statements of the Environmental Scientist:

- Dilatency is difficult to determine and a precautionary principle was adopted when testing was carried out. A 'T' value of 50 was estimated indicating a clay sub soil
- The subsoil samples produced five threads and ribbons of 120 mm.
- There is no engineering basis for the statement that percolation reduces with depth. It will vary indifferent soil and subsoil horizons. The trial hole analysis indicated an A horizon to a depth of 150 mm and a B horizon from 150 mm to the base of the hold at 2400 mm.
- A percolation test simply verifies that the analysis of subsoil samples at the trial hole indicating a non-dilatant subsoil. Dilatency is secondary in categorising samples.
- Non dilatant soil can have a subsoil with a T value as low as 37. Hydraulic conductivity up to T values of 90 permits engineered on site waste treatment according to the Code of Practice and a 46 value is well within the se parameters. An extra test was also carried out. so the comment as to likely failure or an extremely high T test value by the Environmental Scientist report is uninformed and unsubstantiated.
- Direction of groundflow is not relevant to T and P tests. The T test verifies the assessor's estimation of at value based on subsoil analysis as it a test of hydraulic conductivity not the direction of flow.
- Wastewater can be treated on any site. It requires an imported percolation of polishing filter material. The disposal of treated wastewater requires a percolation test if I tis to be discharged to groundwater and to surface waters given certain requirements and a discharge license. The application addressed these considerations in the design of the system included consideration of separation distances.
- As regard the contention by the planning authority as to absence of required information the Environmental Scientist failed to specify what level was the required appropriate level for the percolation test.

- It is not a function of an Environmental scientist to make recommendations on the decision on the application as the planner must have regard to all requirements of the planning code. The decision is not grounded on consideration of the treatment of wastewater on a site. The direction in which effluent will disperse in a polishing filter or percolation area cannot be categorially indicated in a soil suitability assessment. In absence of other subsoil horizons being discovered on inspection of a trial hole or engineered imported percolation or polishing filter and the long standing force of gravity ensures that effluent descends onto homogenous subsoil.
- The applicant complied with the requirements of the Regulations with regard to the provision of information and evidence of the suitability of the site for the proposed effluent treatment and disposal. The EPA is not a statutory instrument and has no a legal basis on which applications can be determined.
- The applicant's agent in his capacity as an Engineer with professional indemnity insurances stands over the proposal and would have no hesitation in undertaking the supervision of the construction and certification of the system.

7.0 Assessment

7.1.1. There is considerable focus in the submissions made on behalf of the applicant in connection with the appeal as to the requirements and limitations of the planning code in consideration of applications and these remarks are briefly addressed below under "Procedural Matters" This is followed consideration of the issue within the reason attached to the decision to refuse permission under, "Proposed arrangements for effluent treatment and disposal". Some general comments on the proposed development under "*De Novo Review*" having regard to de novo consideration follow and finally a brief appropriate assessment screening is provided.

7.1.2. Procedural Matters:

It is the function of the planning officer to assess an application having regard to legalisation and to statutory policy. It is for the planning officer to take into

consideration all the information and recommendations within internal technical reports and prescribed bodies, including any recommendation for refusal of information over technical considerations such as effluent and disposal arrangements. It is acknowledged that the EPA Code of Practice does not have a statutory basis. However, if performance compliant with the recommended standards cannot be demonstrated having regard to the recommended methodology for testing the planning officer, on the advice of a technical scientist or other competent person may reach the conclusion that site conditions are not suitable for the proposed means of treatment and disposal of effluent. This can lead to a conclusion that the proposal is in material conflict with the interests of the proper planning and sustainable development owing to potential contamination of ground conditions and water which is prejudicial to public health, a reason for refusal of permission that comes within the scope of the planning code. To this end, it is not accepted that the environmental scientist exceeded his technical advisory remit within the context of the planning code by including a recommendation to refuse acceptance of the proposed arrangements for effluent treatment and disposal.

7.1.3. Proposed arrangements for effluent treatment and disposal.

7.1.4. Notwithstanding the limitations of a brief walk over visual inspection, the slope of the site downwards towards the road edge is significant. Furthermore, the ground conditions in the low lying land on the northern side of the road opposite the site, were particularly suggestive of poor permeability and a likelihood for potential accumulation of water above ground in certain weather conditions.

7.1.5. While in the submissions made in connection with the appeal both parties agree as to the indicative soil type and it has been indicated that testing has been carried out the required site characterisation form that was lodged with the application lacks essential information on the trial hole assessment conducted. Details of the depth of the water table, depth to bedrock and of the soil and subsoil characteristics are not available on the site characterisation form which would facilitate consideration of the proposal. The design also fails to demonstrate compliance with the recommended minimum 1.2 metres depth of unsaturated subsoil between the base of the percolation trenches and the bedrock and water table so that no lateral movement occurs set out in Table 6.2 of the EPA Code of Practice.

7.1.6. The details shown on Drawing No F1-02-00 lodged with the planning authority on 13th January 2017 which shows percolation pipework in a sloped layout in longitudinal section which is insufficient. The proposed pipework layout for a sloped site should be available on a cross section drawing in order facilitate consideration of the proposal.

7.1.7. In view of the foregoing, it can be concluded that it has not been demonstrated, having regard to the information available in the submissions made in connection with the application and the appeal that satisfactory standards for treatment and disposal effluent emanating from the development would be satisfactorily disposed of within the site thus eliminating adverse risk of pollution and endangerment of public health.

7.1.8. ***De Novo Review.***

7.1.9. On consideration of the application on a *de novo* basis, the footprint shown in the further information submission is repositioned a short distance downslope from the original position proposed and finished floor level of the dwelling and the finished floor level is 0.75 metres above the level of the dwelling on the adjoining site to the east. The landscaping plan included with the further information submission has been noted and planting along the southern boundary was evident at the time of inspection. In the event of favourable consideration towards a grant of outline permission it is recommended that conditions be included which provide for the retention of the drystone walls and use of indigenous species for all planting and that the dwelling be restricted to a single storey dwelling and, possible with limitations to height, finished floor levels and materials and finishes.

7.1.10. **Appropriate Assessment Screening.**

The site location is circa 1,000 metres from the Inagh River Estuary SAC [000036] The target objective is for no decrease from the baseline quality of saltmarsh habitats established 2007 bearing in mind that coastal systems are naturally dynamic and subject to change, this target is assessed subject to natural processes, including erosion and succession. The qualifying interests are Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows [1330], Mediterranean salt

meadows [1410], Shifting dunes along the shore line with *Ammophila arenaria* (white dunes) [2120] and, fixed coastal dunes with herbaceous vegetation (grey dunes) [2130].

- 7.1.11. The potential threat is domestic effluent emanating from the proposed development that could enter and affect water quality in the estuary. The development is to be serviced by a septic tank and percolation area within the site. There is no direct hydrological link between the proposed development and the SAC.
- 7.2. The proposed development would not be likely to have a significant effect on the Inagh River Estuary SAC individually or in combination on the with other plans or projects on a European site.

8.0 Recommendation

- 8.1. In view of the foregoing it is recommended that the appeal be rejected and that the planning authority decision be upheld on the basis of the draft reasons and considerations set out below.

9.0 Reasons and Considerations

Having regard to the standards and recommendations within, *Waste water treatment and disposal systems serving single houses; Code of Practice*, EPA (2009) the Board is not satisfied on the basis of the information available in connection with the application and the appeal that it has been demonstrated that the site is suitable for the safe treatment and disposal of foul effluent emanating from the proposed development. Accordingly, it is considered that the proposed development would give rise to risk of water pollution and would therefore be prejudicial to public health.

Jane Dennehy
Senior Planning Inspector
18th May, 2017.