



An  
Bord  
Pleanála

## Inspector's Report 310617-21

<b>Development</b>	Decommission existing septic tank; install an Oxcrete wastewater treatment system and drip distribution system and associated site works
<b>Location</b>	Sliabh a Mhadra National School, Ballyduff, Co. Kerry
<b>Planning Authority</b>	Kerry County Council
<b>Planning Authority Reg. Ref.</b>	20905
<b>Applicant(s)</b>	Board of Management Sliabh a Mhadra National School
<b>Type of Application</b>	Planning permission
<b>Planning Authority Decision</b>	Grant permission s.t. conditions
<b>Type of Appeal</b>	First Party
<b>Appellant(s)</b>	Board of Management Sliabh a Mhadra National School
<b>Observer(s)</b>	None
<b>Date of Site Inspection</b>	25 <sup>th</sup> October 2021
<b>Inspector</b>	Mary Kennelly

## **1.0 Site Location and Description**

- 1.1.** The site is located approx. 20km to the north of Tralee, and to the north of the R551 which links Ballyheigue, Causeway and Ballyduff in North Kerry. It is located in the townland of Slieveawaddra approx. 2km to the south of the coast and approx. 4.2km to the west of Ballyduff village. It is accessed by means of a network of local roads and is sited close to the junction of two such roads. North Road generally follows the line of the coast, and several roads branch off in a southerly direction. The topography is relatively flat with several clusters of one-off houses along the roads.
- 1.2.** The site which comprises a national school, known as Sliabh a Mhadra National School, is situated approx. 150m from North Road. The lands to the north comprise a large open field which extends as far as North Road. There is a single dwelling house immediately to the south. There is a row of single dwellings fronting onto North Road with long back gardens, some of which extend almost as far as the school site.
- 1.3.** The site area is given as 0.43ha. The school building (915m<sup>2</sup>) is single storey and is located towards the front (west) of the site with the school yard and playing field to the rear. The site is long and narrow with prefabs behind the main building. There is a concrete yard which has basketball nets erected on it immediately behind the school buildings and to the rear (east) of the yard, there is a grassed area which seems to be used as a playing field. The rear yard and field are bounded by a masonry wall with mesh fencing along the northern, southern and eastern boundaries. Immediately to the east of the playing field, lies part of an agricultural field comprising a narrow strip and beyond this is a field or rear garden of one of the houses fronting North Road. The submitted plans show an existing watercourse running alongside the front (roadside) boundary and a further watercourse at the rear of the site which flows across the site along the boundary between the concrete yard and the playing field.

## **2.0 Proposed Development**

- 2.1.** It is proposed to decommission and remove the existing septic tank and to install an Oxcrete wastewater treatment unit/drip distribution area and associated site works.

The existing septic tank is shown within the concrete yard area and includes a pump and treatment unit.

- 2.2.** The proposed wastewater treatment plant is an Oxcrete 40 packaged treatment plant with primary and secondary treatment. It would be located to the rear of the school building and would comprise a treatment unit and drip distribution system. The proposed new system would incorporate a sand polishing filter and a gravel bed, which would be located on the site of the playing field.

### **3.0 Planning Authority Decision**

#### **3.1. Decision**

The planning authority decided to grant permission subject to two conditions. Condition 2 related to the installation, operation and maintenance of the wastewater treatment system and contained 8no. subsections (a-h), which may be summarised as follows:

- (a) The wastewater treatment system as outlined in submissions made on 30/09/20, 24/02/21 and 4/05/21, to be installed, operated and maintained in accordance with manufacturers instructions and technical certificates.
- (b) The WWTP, drip distribution system etc. to be located and installed as shown in Drg. No. 14609 DWG.11 (04/05/21).
- (c) The WWTS shall be fully installed within 12 months
- (d) Within 4 weeks of commissioning the applicant shall submit a certificate from a suitably qualified person confirming installation in accordance with the planning permission and the manufacturer's instructions, with photographs of each stage to be provided.
- (e) The applicant to undertake a maintenance or service contract for the on-going maintenance of the packaged wastewater treatment unit and drip distribution system with the manufacturer or such qualified person in perpetuity and a signed and approved maintenance contract is to be provided prior to commissioning of the system.
- (f) All wastewater generated to be discharged to the WWTS.

- (g) The applicant shall cease to use the existing septic tank system as soon as the system hereby permitted is operational and existing system to be properly demolished and removed in safe manner.
- (h) The applicant shall arrange to have the area in which the drip distribution system is located fenced in a manner that ensures that the area is not accessible to students.

**Reason: In the interest of public health and to prevent pollution.**

## **3.2. Planning Authority Reports**

### **3.2.1. Planning Reports**

- 3.2.1.1 The planning report (20/11/20) noted that permission had previously been granted for a similar development under 16/375. The comments of the SAU were noted, and that further information had been requested in respect of the proposed drip distribution system and proposals for maintenance of same. Information was also requested in respect of how the area in which the drip distribution system was to be installed, would be managed in the future and the nature of the proposed use of this area. It was decided to request the FI as recommended (20/11/20).
- 3.2.1.2 Following the receipt of FI, (24/02/21), clarification was requested on 22<sup>nd</sup> March 2021. This sought scaled drawings of the proposed system with all relevant features on the site and in the vicinity as well as clarification the possible need to remove some of the concrete yard to accommodate the new WWTS. In addition, the P.A. expressed concern regarding the future use of the area within which the drip distribution system was to be placed and stated that it should not be used as a play area.
- 3.2.1.3 The Response to the Clarification Request was received on 4<sup>th</sup> May 2021. It was confirmed that the area is to be used as a play area and that the applicant is confident that it would be safe to do so. Reference was made to evidence from other schools where such systems have been used and to the maintenance contract that would be put in place. It was further stated that the management of the school do not allow children to play on the grassed area if it is damp and that the area would continue to be monitored carefully in this respect.

### **3.2.2. Other Technical Reports**

**Environment Section (17/11/20)** – The Environment Engineer was familiar with the site. He sought further information on the proposed drip distribution system which should be site-specific and of bespoke design. The additional details should include the layout of the system, relevant separation distances, amount of piping to be used and justification for same and the proposed depth of the distribution pipes.

Information on the management, maintenance and future use of the area in which the drip distribution system is to be installed was also required.

**Environment Section (09/03/21)** – Further clarification was required including suitably scaled and detailed drawing of all relevant features within the site and in the vicinity and clarification of the need to remove a section of concrete yard to accommodate the installation of the proposed treatment system. Concern was expressed regarding the use of the grassed area as a play area.

**Environment Section (24/05/21)** – permission subject to conditions was recommended including the requirement to fence off the grassed area such that it would not be accessible to students.

### **3.3. Prescribed Bodies**

3.3.1 None.

### **3.4. Third party submissions**

3.4.1. None received.

## **4.0 Planning History**

**16/375** – permission granted for a similar scheme to decommission the existing septic tank, install a treatment unit and sand polishing filter and all associated works.

**12/625** – permission granted for extension to rear and side of school building.

**10/923** – permission granted for single storey side extension to school.

**05/1260** – Permission granted to install a portacabin

**95/112** – Permission granted for extension to school.

94/957 – permission granted for extension to school.

## 5.0 Policy Context

### 5.1. Kerry County Development Plan 2014-2021

5.1.1 The site is zoned Rural General (Section 3.2.1 of the Plan). This is one of three rural landscape types, which constitutes the least sensitive landscapes and have the ability to absorb a moderate amount of development without significantly altering their character. Chapter 12 sets out the objectives for landscape protection. **Policy ZL-1** seeks to protect the landscape of the county as a major economic asset and an invaluable amenity which contributes to people's lives. **Section 12.3.1** states that "it is important that development in these areas be integrated into their surroundings in order to minimise the effect on the landscape and to maximise the potential for development".

### 5.2. Natural Heritage Designations

Lower River Shannon SAC (002165) and Kerry Head SPA (004189) are located approx. 1km to the north.

## 6.0 The Appeal

### 6.1. Grounds of Appeal

The first-party appeal was submitted by Brendan Nolan Consultant Engineer on behalf of the appellant. The appeal is against Condition No. 2 (h) of the planning authority's decision. The appeal is accompanied by a letter from the Board of Management setting out the background and justification for the proposed wastewater treatment system. The main points raised may be summarised as follows:

- **Compliance with EPA Code of Practice** – the proposed wastewater treatment system has been designed to meet the requirements of the EPA COP for Small communities, business, leisure centres and hotels. The most appropriate system has been chosen for this school site and it uses the latest

technology and expertise to treat the wastewater and to protect the environment. It was selected specifically as it allows for pupils to continue to play on this area as is the case in several schools around the country.

- **Condition to fence off percolation area** – The condition requiring the fencing off the percolation area and to prevent access to students is not part of the EPA COP requirements and is unworkable for this school. The applicant's specialist engineering design team have provided technical information to demonstrate that the use of the distribution area as a play area is perfectly safe.
- **Board of Management obligations** – the BOM fully understands their obligations to ensure that the treatment system and percolation area is fully serviced and monitored to ensure that the entire system is working correctly, and the use of the surface areas are safe at all times for the students and staff.
- **High quality of proposed WWTS** – the proposed WWTS includes primary and secondary treatment of wastewater followed by UV disinfection. This means that there will be no viable pathogenic bacteria in the wastewater feeding the distribution area. In addition, the proposed system is subject to a 10-year annual servicing contract which will ensure that the entire system will operate effectively for at least ten years. It is pointed out that a professional installer is unlikely to supply a servicing contract that they cannot stand over.
- **Precedent** – it is submitted that if this condition is allowed to stand, in effect all percolation areas in private developments, schools etc. will have to be fenced off which is unreasonable.

It is requested that the Board delete this condition.

## 6.2. Planning Authority Response

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

## 7.0 Assessment

7.1. The first party appeal is against **Condition No. 2 (h)** only which states that

**The applicant shall arrange to have the area in which the drip distribution system is located fenced in a manner that ensures that the area is not accessible to students.**

I am satisfied that the appeal can be dealt with in accordance with the relevant provisions of S139 of the Planning and Development Act 2000, as amended.

### 7.2. Adequacy of proposed wastewater treatment system

7.2.1. The proposed wastewater treatment system involves the replacement of a standard septic tank system which was installed in the 1960s with a proprietary wastewater treatment system (Oxcrete 40), with a PE of 40. The existing system discharges to a percolation area which is located within the grassed area at the eastern end of the site. The proposed new system involves primary and secondary treatment of wastewater followed by UV disinfection. The treated discharge would then be pumped to a specially designed and constructed percolation area, called a 'Drip Distribution Area', which would be located in the same area as the existing percolation area.

7.2.2. A Drip Distribution System is described in the literature, submitted with the application and appeal, as a subsurface percolation system which involves the controlled dripping of minute quantities of water at about 15-20 centimetres below ground, at the biologically active root zone of the ground surface vegetation. It disperses the filtered effluent uniformly over the percolation area using pressure compensating drip tubing. This allows the treated effluent to be released in small doses throughout the day and to be spread uniformly across the distribution area. This is achieved by placing drip emitters which are inserted into flexible tubing to control the rate of wastewater through tiny holes, and the tubing is laid out in parallel lines across the site. The effluent is pumped into the tubing to achieve uniform distribution. It is clear from the submitted documentation that these systems are heavily dependent on regular servicing and maintenance, but with such servicing



and monitoring in place, can provide an effective wastewater treatment system, particularly on sites with poor drainage qualities.

**7.2.3.** The proposed system in the current application shows 22 trenches/lines of GeoFlow drip tubing (29 metres in length), which would be placed at 60mm centres, and drip emitters placed at 600mm spacings on the tubing. A sketch provided with the clarification of FI on the 4<sup>th</sup> of May 2021 shows that the dripline would be 200mm below the surface with the manifold supply and return pipes at 500mm below the ground surface. The proposed drip distribution system would be located on the grassed area at the eastern end of the site and would occupy most of this area. There is a watercourse crossing the site at this location, but it is to be piped for the extent of the site crossing (Drawing 14609 DWG.11, submitted to P.A. on 30/09/20). As such it will not interfere with the percolation area.

**7.2.4.** I note from the site characterisation form that the depth to bedrock and the water table is 2.6m. The site is not suitable for a standard septic tank as the T test value is c.60 and the P test value is c. 41. However, it was deemed suitable for a packaged treatment unit with discharge to groundwater. It is considered that the proposed wastewater treatment system would provide a much-improved system on the school site compared with the current system. Once installed and commissioned appropriately and subjected to a suitable monitoring and maintenance programme, it would be an acceptable form of development which would not prejudice public health. The planning authority's decision has included a set of conditions requiring such a regime to be put in place. The applicant has emphasised the intention to abide by such conditions.

**7.2.5.** Apart from the use of the percolation area as a play space, the planning authority was satisfied with the proposed wastewater treatment system subject to these standard conditions. I am satisfied that the proposed wastewater treatment system and drip distribution system would be appropriate at this location and would result in a significantly improved wastewater treatment system for the school.

### **7.3. The use of the Drip Distribution System**

**7.3.1.** Having regard to the design and technical nature of the proposed drip distribution system, with the tubing located very close to the surface and the heavy dependence

on regular servicing and monitoring, the planning authority's concerns regarding the use of the percolation area as a playing field/play area are considered to have some merit. The literature submitted indicates the need for careful monitoring and regular servicing of the area. This seems to be because issues such as disturbance of the underground tubing by either too much water at the surface or clogging up of the emitters with disturbed soil, etc. can cause problems with the operation of these systems.

**7.3.2.** However, I note from the technical documentation submitted that these subsurface irrigation systems are stated to be 'suitable to walk and play on', (Ashtecs 'Benefits of Drip Distribution for Discharges'). I also note that they are fitted with several alarms to indicate the occurrence of any problems with specific solutions set out in the literature. It is acknowledged by all parties that the system must be maintained by trained service technicians and that the school must undertake a maintenance contract with the manufacturer (or equivalent qualified person/body) in perpetuity. As stated previously, the P.A. decision has incorporated conditions requiring the applicant to engage with the planning authority in terms of implementing appropriate and certifiable measures for the installation, operation, monitoring and maintenance of both the wastewater unit and the drip distribution system, and the applicant is happy to comply with these, apart from the restriction of the use of the percolation area. As such, it is considered that appropriate measures would be in place to mitigate any such problems with the use of the playing field in the future.

**7.3.3.** Having regard to the foregoing, it is considered that the area in which the proposed drip distribution system is to be located, subject to the conditions imposed in Condition 2 subsections (a) – (g) would comply with the guidance and would be appropriate in terms of the use of this area as a play area. As such, Condition 2 (h) is considered inappropriate and should be omitted.

#### **7.4. Environmental Impact Assessment**

Having regard to the nature, size and location of the proposed development, there is no real likelihood of significant effects on the environment arising from the proposed development. The need for environmental impact assessment can, therefore, be excluded at preliminary examination and a screening determination is not required.

## **7.5. Appropriate Assessment**

Lower River Shannon SAC (002165) and Kerry Head SPA (004189) lie c.1km to the north. Given the scale and nature of the development, the distances involved, that the site is an established school site where wastewater is currently disposed of by means of a standard septic tank and percolation area, and where the proposed development will result in significant improvements in the quality of wastewater to be discharged from the site, it is considered that no appropriate assessment issues are likely to arise.

## **8.0 Recommendation**

8.1. Having regard to the nature of the condition the subject of the appeal, the Board is satisfied that the determination by the Board of the relevant application as if it had been made to it in the first instance would not have been warranted and, based on the reasons and considerations set out below, directs the said Council under subsection (1) of Section 139 of the Planning and Development Act 2000, as amended, to remove Condition Number 2 (h) and the reason therefor.

## **9.0 Reasons and Considerations**

9.1. Having regard to the policies and objectives as set out in the Kerry County Council Development Plan 2015-2021 and to the advice contained in the EPA Wastewater Treatment Manuals for Small Communities, Business, Leisure Centres and Hotels, to the scale and nature of the proposed development and to the nature and character of the surrounding environment, I am satisfied that Condition No. 2(h) is not warranted. The proposed development would not, therefore, be in accordance with the proper planning and sustainable development of the area.

## 10.0 Decision

**Remove:** Condition No. 2 (h) and the reason therefor.

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Mary Kennelly  
Senior Planning Inspector

23<sup>rd</sup> January 2022