

# An Bord Pleanála



## Inspector's Report

**Appeal Reference No:** PL26.245475

**Development:** Potable water facility comprising 5 wells, 5 borehole pumps and associated site works.

### Planning Application

Planning Authority: Wexford County Council

Planning Authority Reg. Ref.: 2050666

Applicant: Paul Tyrell

Planning Authority Decision: Grant with conditions

### Planning Appeal

Appellant(s): (1) Colin and Ann Mernagh & Others  
(2) Catherine Philips and Others

Type of Appeal: Third Party V Grant

Observers:

Date of Site Inspection: 16<sup>th</sup> December 2015

**Inspector:** Hugh Mannion

## **1.0 SITE LOCATION AND DESCRIPTION**

The application site has a stated area of 0.6 hectares and is located about 6kms south of Wexford Town center in the townland of Bogganstown Upper. The site is located in a rural area to the east of the N25 which links Wexford Town to the north to Rosslare Harbour to the south. The application site is part of a larger pasture field although some linear tree planting has been carried out along a line, generally, linking the access road in the east of the site to the field boundary on the west of the site. There are hedgerows located along the northern, southern and western boundaries of the site while the eastern boundary is undefined but the field boundary runs along the rear gardens of houses which face onto the public road to the east of the site.

The site is accessed from a county level public road to the east of the site with a gated entrance and laneway serving the site. There are three houses immediately to the south of the access laneway and one immediately north.

## **2.0 PROPOSED DEVELOPMENT**

The proposed development comprises the provision of a potable water facility comprising 5 wells, 5 borehole pumps and associated pipe work, cascade aerator, contact tanks, and UV disinfection, single storey control building (housing control panels, chemical dosing bund and equipment, water filtration system, and pumps), backwash tank, and a underground storage tank (6m wide x 75m long x 2.7m deep).

All at Bogganstown Upper, Drinagh, County Wexford.

## **3.0 PLANNING HISTORY**

Under appeal **PL26.244592** a similar application was withdrawn when appealed by third parties to the Board. Therefore no decision was made.

**20064951:** Permission granted to Paul Tyrell for a dwelling and associated site works on a larger site including the current appeal site.

**20043052:** Permission refused to John Fortune for five dwellings and associated site works on a larger site including the current appeal site. Refused on the basis of public health, traffic hazard and inappropriate suburban development in a rural area.

#### **4.0 PLANNING AUTHORITY DECISION**

##### **4.1 Planning and technical reports**

The planner's report recommended a grant of permission generally as provided for in the manager's order.

**Environment section** recommended further information in relation to groundwater impacts and flows in surrounding streams. The planner's report commented on this to the effect that the planning authority's engineering advice was that no impacts would arise. This may be a reference to the previous application under PL26.244592 as there is no written engineering advice on file.

**Biodiversity officer** reported that the rate of abstraction was unclear from the application documents.

The **Environmental Health Officer** recommended further information on the hydrological impacts of the proposed development.

The **HSE** stated that additional information should be submitted in relation to impacts on other wells in the area.

The **NRA** requested that the planning authority have regard to national policy in relation to impacts on national roads.

##### **4.2 Planning Authority Decision**

Planning Authority divided to grant permission subject to 10 conditions. Condition 2 restricted the abstraction rate to 1,200m<sup>3</sup> per day. Condition 3 required details of the disposal of backwash water and sludge from the proposed treatment system.

## 5.0 GROUNDS OF APPEAL

The grounds of appeal may be summarised as follows;

- The proposed development is a commercial water extraction project which may impact on a regionally important bedrock aquifer with a high vulnerability rating. This aquifer is part of the Fardystown groundwater body from which the County Council extracts 6,330m<sup>3</sup>/day to supply the southern half of the county. The application is not clear as to the amount of water which it is proposed to be extracted.
- It is not clear what impacts would arise for the aquifer for specific extraction rates. Saline (salt water) intrusion may occur and local domestic wells may be impacted upon. The assessment included with the application (the Parkmore Report) recommends that further analysis of the impact of pumping on nearby wells be carried out but this was not done.
- The application has not clarified the types of pumps which will be employed, whether they are over ground or underground, their capacity to create emissions including noise. The proposed development will negatively impact on residential amenity of nearby houses.
- No details were submitted in relation to the backwash holding tank, sludge production/handling/cascade aerator/on-site chemical storage were submitted. There may be an on-site stand along electrical generator which may give rise to noise or hydrocarbon spillage.
- The site is located on a karstified fissured limestone bedrock. The large underground storage tank with a capacity of 1200m<sup>3</sup> is potentially unstable in this location where swallow holes have appeared in the past.
- The proposed development comprises an industrial use in agricultural/residential area. The proposed access road will negatively impact on the residential amenity of nearby houses.
- The proposed development will lead to damage to local roads arising from additional machinery movements. Sight distance at the junction with the public road is inadequate.
- The proposed development is within the area reserved for the future E01 motorway.

- The application requires the laying of 6kms of water pipe on the public road. This will cause traffic disruption.

## **6.0 RESPONSES/OBSERVATIONS TO GROUNDS OF APPEAL**

### **6.1 Planning Authority response**

The planning authority commented that water abstraction for domestic, agricultural and industrial uses is common in County Wexford.

### **6.2 First party response**

The applicant did not comment on the appeal.

### **6.3 Observations on grounds of appeal**

There are no objections/observations on file.

## **7.0 POLICY CONTEXT**

The Water Framework Directive (WFD) and the Groundwater Directive set out a number of objectives in relation to the protection of groundwater resources in member states. These objectives include the prevention or limitation of the input of pollutants into groundwater, the prevention of the deterioration of the status of all bodies of groundwater, the protection, enhancement and restoration of all bodies of groundwater and to ensure a balance between abstraction and recharge of groundwater. The overall aim of the WFD is that all water bodies achieve good groundwater status by not later than 22 December 2015. The EU Environmental Objectives (Groundwater) Regulations 2010 seek to give effect to the Directives' objectives in Ireland.

**Objective WS 01** of the **Wexford County Development Plan 2013-2019** is

“To protect existing and potential water resources for the County, in accordance with the EU Water Framework Directive (2000/60/EC), the South- East River Basin Management Plan 2009-2015 and any updated version, the Pollution Reduction Programmes for designated shellfish waters, the provisions of Groundwater Protection Scheme for the County and any other protection plans for water supply sources”.

## **8.0 ASSESSMENT**

### **8.01 Introduction**

**8.02** This is an application for permission to sink five bored wells to extract groundwater from the aquifer underlying this area of south County Wexford. It appears from the information submitted with the application that the final destination of the abstracted water is a creamery located to the north of the site on the southern edge of Wexford town. The appeal makes the point that this will require additional pipework along the public road but since this is not part of the application I will not refer to it further.

### **8.03 Impacts on Groundwater**

I would identify the potential impacts of ground water abstraction as;

- Impact on the water balance impact within the aquifer,
- Impacts on the wells,
- Impacts on surface water features,
- Saline intrusion.

**8.04** Aquifers are generally regarded as rocks that contain sufficient voids to store water and are permeable enough to allow water to flow through them in significant quantities. As a rule of thumb a single house would abstract about 20m<sup>3</sup>/day. Water balance in the aquifer refers to the equilibrium between the rate of discharge out of the aquifer and the recharge rate coming from infiltration of rainfall. This equilibrium is important because there are existing public and private water sources taking water from the aquifer and because the aquifer has an independent protection under the WFD and the EU Environmental Objectives (Groundwater) Regulations 2010 which give effect to the Directive's objectives in Ireland.

**8.05** The application includes a report from Parkmore Environmental Services which outlines the ground water development potential for the site based on a planning application for abstraction of up to 3,000m<sup>3</sup>/day. The report is a desk study based on published material with the addition of details of a well drilled on-site in 2008. The site is within the Fardystown groundwater body which in turn part of a regionally important karstified aquifer. The Fardystown regional water supply scheme appears to have at least four borehole sources<sup>1</sup>. The

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<sup>1</sup> See copy GSI report attached.

report quotes the GSI that this scheme abstracts 6,330m<sup>3</sup>/day. The report states that the recharge potential of the aquifer is high at 394mm/year – this figure is not a helpful assessment tool in the absence of an estimate of the overall abstraction from the aquifer.

**8.06** The Parkmore Environmental Services report concludes that the potential of the site is good with possible well yields exceeding 400m<sup>3</sup>/day. It is not clear if this is one well with a possible yield of 400m<sup>3</sup>/day or 5 wells giving possible 2,000m<sup>3</sup>/day. The pumps specification submitted with the application is for 1,200m<sup>3</sup>/day and the planning authority permitted abstraction of 1,200m<sup>3</sup>/day.

**8.07** It is not possible to assess the impact of the proposal on the water balance in the aquifer because the total current abstraction rate is not clarified and what would be the relative contribution to that rate of abstraction arising from the proposed development.

#### **8.08 Impact on neighbouring wells**

**8.09** The application states that the nearest mapped well is 750m to the south but acknowledges that there may be other unmapped wells. When water is pumped from a well the water level in the well and the water table in the surrounding area is reduced. The area which contributes water to the well is known as a '*zone of contribution*'. In order to assess the potential for impacts on wells in the area it is necessary to identify the location of all wells within a zone of contribution and identify which could reasonably be expected to be affected by the proposed development. The greater the quantity of pumped water the wider the zone of contribution would be and the lower the water table will fall within the zone of contribution.

**8.10** The other issue which arises in this context is the capacity of DWWTS within the zone of contribution to release contaminants. If this were a public water supply the planning authority (or Irish Water now) would establish a source protection area around the bore hole. This source protection area would reflect factors such as direction of ground water flow and depth and nature of the overburden. Such source protection areas will have implications for the types of landuses permitted within them. It appears in this case that the water proposed for abstraction is destined for an industrial use in a nearby factory. It is unclear if all the water to be abstracted is going to a single end user, if it is wholly replacing an existing public supply to that end user, and what water quality standards it will meet.

### **8.11 Surface water features**

**8.12** I agree with the application that there are no surface water features within or on the boundaries of the site. Nonetheless there is a stream and holy well marked on the OS map within about 200m of the site to the east. The application has not included sufficient evidence to assess potential impact on these surface water features.

### **8.13 Saline Intrusion**

**8.14** The appeal raises the issue for potential saline intrusion into ground water. Saline intrusion is a feature of over exploited aquifers in contact with seawater whereby seawater flows into the aquifer as the fresh water is pumped out. I think this is unlikely in this context but in the absence of information relating to the capacity of the aquifer, the relative significance of the proposed abstraction and the location of the aquifer relative the coast it is not possible to properly assess this matter.

**8.15** The appeal makes the point that an underground storage tank of 1200m<sup>3</sup> is very large and has the potential to destabilise the ground in an area of karstified limestone where swallow holes have opened in the past. Having regard to the paucity of information submitted with the application it is difficult to access this point. If the Board were minded to grant a permission it is possible that a condition requiring a geotechnical assessment of the specific location of the proposed tank could be undertaken to ensure that it is not unstable.

### **8.16 Appropriate Assessment Screening**

**8.17** The application includes a screening for appropriate assessment report. The report considers the Wexford Harbour and Slobbs SPA (Site Code 004076), the Slaney River Valley SAC (site code 000781), Raven Point Nature Reserve SAC (site code 000710), the Raven SPA (site code 004019), the Blackwater Bank SAC (site code 002953, Long Bank SAC (site code 002161) and Carnsore Point SAC (site code 2269).

**8.18** The screening report states that the site is 4.9ha whereas the application form states that the site is 0.6 hectares. The application will provide water to Wexford Creamery Factory which currently relies on a public system.



**8.19** The screening assessment concludes that there are no **likely direct effects** on the Natura 2000 sites because the site is not located within the boundaries of any Natura 2000 site.

**8.20** The **indirect effects** on the Natura 2000 are identified as habitat loss or deterioration as a consequence of water abstraction on local surface waters, water supplies and groundwater dependent terrestrial ecosystems (GWDTE). The screening assessment concludes that there are no turloughs or raised bogs which depend on the ground water resource the subject of this application. The coastal/marine habitats associated with the Natura 2000 sites other than the Slaney River Valley SAC (site code 000781) are not dependent on ground water and therefore will not be impacted on by the proposed development. In relation to the Slaney River Valley SAC (site code 000781) the assessment states that this is a freshwater system which includes GWDTEs such as wet woodland/alluvial forest which may be susceptible to changes in water levels and flow. However there is no direct link between the application site and the SAC and the susceptibility of the pathway and sensitivity of the receptor is low.

**8.21** In relation to Raven Point Nature Reserve SAC (site code 000710), Long Bank SAC (site code 002161), Carnsore Point SAC (site code 2269), the Blackwater Bank SAC (site code 002953) the assessment makes the case that the conservation interests of these sites relate to habitats which will be unaffected by any increased noise or human activity related to the proposed development.

**8.22** The Wexford Harbour and Slobbs SPA (Site Code 004076) and the Raven SPA (site code 004019) are designated for over-wintering bird species and having regard to the area to be affected, the site characteristics, distance from the Natura 2000 sites the AA screening assessment concludes that potential for disturbance is not of concern.

**8.23** Based on the Parkmore Environmental Services that “the groundwater potential of the site is regarded as good, with potential yields of 400m<sup>3</sup> per day possible” the AA screening assessment concludes that the available ground water resource is not exceeded by the long term average rate of abstraction and that there are no potential cumulative effects on the Natura 2000 sites.

**8.24** It may be noted that the AA is inaccurate in relation to the area of the site included in the application. Furthermore the same problem noted in relation to the Parkmore Environmental Services is accentuated in the AA screening report in relation to the yield of the aquifer at 400m<sup>3</sup>/day but the technical specification provided by Response Group<sup>2</sup> included in the application documents is 1200m<sup>3</sup>/day. Since the assessment relies on an assumption of pumping 400m<sup>3</sup>/day but the designed and permitted capacity is 1,200m<sup>3</sup>/day I consider that the assessment's conclusions are not reliable.

**8.25** This last point is particularly relevant to the GWDTE "alluvial forest" which is a priority habitat in the Slaney River Valley SAC (site code 000781). The assessment states that there is no direct link between the site and the SAC but if both application site and the SAC overlay the same aquifer it is not clear how the conclusion that there are no potential adverse effects could be reached on the basis of the evidence presented in the application.

**8.26** Having regard to the foregoing and on the basis of the information provided with the application and appeal and in the absence of a Natura Impact Statement the I conclude that 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 the Slaney River Valley SAC (site code 000781) or any other European site, in view of the site's Conservation Objectives. In these circumstances I recommend that the Board is precluded from granting permission.

### **8.27 The E01 Motorway**

**8.28** The appeal makes the point that the proposed development is within the area reserved for the future E01 motorway. The NRA (see letter on file dated 8<sup>th</sup> July 2015) stated that it was relying on the planning authority to have regard to official policy in relation to the national road system when determining this application. The planner's report (see page 9 of report) records that the planner discussed the application with the Roads Design Team and that the advice was that the proposed development would not impact on the line of the future E01 Motorway.

**8.29** Having regard to the foregoing I conclude that the proposed development would not impact on the line of the future E01 Motorway.

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<sup>2</sup> See "Design Calculations" section the Response Group specifications report submitted with the application.

### **8.30 Road Safety**

**8.31** The appeal states that the proposal will negatively impact on road safety. Having regard to the reasonably good standard of the road network in the area, to the sight distance available at the entrance to the site and the relatively low volume of traffic likely to be generated by the proposed development I conclude that the proposed development would not endanger public safety by reason of traffic hazard.

**8.32** The appeal is also concerned that traffic on the access road would negatively impact on the amenity of houses adjoining that road. Having regard to the type of development being proposed, the distance of the closest houses to the access road, the screening along the road side, and the relatively low level of traffic which could be anticipated as arising from the proposed development I consider that such disturbance to the amenity of these properties will not be significant.

### **8.33 Residential Amenity**

**8.34** The appeal makes the case that the pumps would give rise to noise impacts which would seriously injure the residential amenity of nearby property.

**8.35** It is the case that no details of noise emissions are provided in the application. Nevertheless having regard to the separation distances between the site and neighbouring property, the noise dampening measures which may be adopted in developments such as this and the susceptibility of this impact to mitigation by planning condition I do not recommend refusal on this point.

## **9.0 CONCLUSIONS AND RECOMMENDATION**

Having regard to the foregoing I recommend permission be refused for the reasons and considerations set out below.

## REASONS AND CONSIDERATIONS

1. The proposed development provides for the abstraction of water from an aquifer which is a source for both public and private water supplies. The application has not demonstrated that the rate of abstraction is such as that would not negatively impact on this ground water resource. In the absence of such information and having regard to article 5 of the European Communities Environmental Objectives (Groundwater) Regulations, 2010, which requires that a public authority, in the performance of its functions, shall not undertake those functions in a manner that knowingly causes or allows deterioration in the quantitative or chemical status of a body of groundwater, it is considered that the proposed development would constitute a threat to the quantitative status of a ground water body and would be contrary to the proper planning and sustainable development of the area.
2. 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 the Slaney River Valley SAC (site code 000781) in view of the site's Conservation Objectives. In such circumstances the Board is precluded from granting permission.

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Hugh Mannion  
Planning Inspector  
21<sup>st</sup> December 2015