

**0. Introduction**

0.1 I refer to the consultant's brief prepared by the Board and referred to in the Board Direction dated 20<sup>th</sup> November 2012. My appointment by the Board to report on the case is dated 7<sup>th</sup> December 2012.

0.2 The following report has been prepared in order to provide advice to the Board as required in relation to the issues covered in points 1 to 10 of the brief. The report essentially is confined to the issues on which the Board seeks advice and does not cover or reassess other issues dealt with in the inspectors report to the Board dated 5<sup>th</sup> May 2010.

0.3 In order to prepare the report, it has been necessary for me to familiarise myself with the application file including the EIS and the submissions made and I have read the report of the inspector who conducted the oral hearing. I have read the documentation submitted to the Board subsequent to the closure of the oral hearing, including submissions from the EPA and comments made on these submissions. I have, where I considered it necessary to better understand the issues on which the Board now seeks advice, studied submissions made at the oral hearing. I have also inspected the site and surrounding area. I carried out a general inspection of the site and surrounding area on 3<sup>rd</sup> January 2013 and I conducted a detailed inspection of the site of the proposed development and other lands on Tuesday 8<sup>th</sup> and Wednesday 16<sup>th</sup> January 2013.

## **1. Clarification of plant processes and linkages to existing plant**

- 1.1 This issue relates essentially to the applicant's response to point No. 1 of the request for additional information dated 18<sup>th</sup> June 2010. The Board requested that the applicant should provide further clarification of plant processes, process flows and design including layout and design of the proposed CHP plant and services building, the condenser plant and associated facilities. The information required included the internal plant layout, material flows, materials handling procedures, identification of location and design of storage areas and silos. The Board also required information on the relationship with the existing rendering plant processes and infrastructure demonstrating how processes plant, material movements and equipment are intended to link to the proposed new facilities. Details of ash handling and management, including associated plant and equipment, were required.
- 1.2 The applicant's response is contained in section 2 of the response received from the applicant's agent on 24<sup>th</sup> September 2010. Three drawings which are specifically referred to in section 2 are relevant to this issue i.e. 898-1-001, 898-1-002 and 898-1-003. Figure 2.2 demonstrates a pipe bridge linking the new development to the existing facility.
- 1.3 I consider that the additional information submitted is a reasonable and adequate response to the clarification sought in section 1 of the request for additional information. The plans/information submitted provide a good indication of the process and the materials flow through the system. I accept

that the proposed CHP plant or incinerator has not been finally designed and the documentation does not provide full information on mass balances of materials etc. It does not clarify the energy efficiency of the plant and there are some areas of ambiguity as has been pointed out in the responses received and in particular the response from the NEAI Group (see observations from Mr. McMahon enclosed with the submission in particular on this issue). While it is clear that the details of the development have not been finally designed with all inputs and outputs calculated I consider that the details as submitted are adequate for the purpose of the planning development management system.

- 1.4 I accept the objectors' contention that the documentation submitted is ambiguous in relation to the transfer of MBM from the existing plant to the new facility. It is stated that MBM will be transported to the CHP plant in sealed trucks. This appears to include MBM from the existing plant. It is further stated, however, that there are several pipeline linkages between the existing rendering plant and the CHP plant i.e. feedstock (in the form of MBM), energy (in the form of steam), steam condensate, air and a communications conduit. The plans, however, do not indicate any feedstock pipeline and an electrical connection to provide energy to the existing plant, as proposed, is also not shown. I also accept that a 'hopper' would not be an appropriate storage facility for tallow and that the steam linkage for the pre-heater (which appears to be proposed at a location where there is an existing cooker) is not clear. I accept that much greater detail of any air transfer from the existing plant to the combustor would have to be worked out as part of the final design. Issues in

relation to fire safety arising from this, however, are more appropriate for fire safety legislation than planning control.

1.5 It is noted that many of the submissions on the additional information refer to the over technical nature of the submission. The more technical submissions, however, e.g. that from Mr. McMahon, consider that adequate technical information has not been submitted.

1.6 I consider that the extent of the information submitted is adequate for the planning management system. I do not consider that the additional information in relation to the process design or the linkages with the existing facility give rise to any issues likely to have implications for the proper planning and sustainable development of the area. I consider that the ash handling and management facilities and procedures indicated would ensure that these elements of the proposed development would not give rise to any significant adverse effect on the environment or significantly impact on the proper planning and sustainable development of the area.. A direct pipeline feed for MBM from the existing facility would reduce the amount of truck movements on site. I do not consider, however, that this would be significant in the overall context of the existing and proposed developments.

## **2. Issues arising from stack height of 40 or 46 metres**

- 2.1 Part 3 of the applicant's consultants response deals with this issue. It is argued that a 46 metre stack height is not necessarily the 'optimum' stack height. The basis for considering that it may be so is given (2.5 times the max building height in the vicinity). The additional information contains revised air modelling predictions. The impact of a 40 metre as against a 46 metre stack is given. A revised chapter 10 of the original EIS is submitted. In modelling the emissions the design details now used differ somewhat from those used in the original EIS. The exit velocity originally used for the CHP stack was 36.9 metres/second and the temperature was 483 (k). These are now given as 27.8 metres/second and 473 (k). The volume flow, however, remains about the same at 124,200 Nm<sup>3</sup>/hour in comparison to 123,840 Nm<sup>3</sup>/hr. The current calculations are on the basis of slightly higher emission rates for some substances (Table 10.4 of F.I. and Table 10.2 of original EIS).
- 2.2 The modelled worst case situation as indicated on tables 10.2 and 10.3 indicates maximum predicted concentrations for any of the modelled parameters at 49% of ambient air quality standards i.e. the annual NO<sub>2</sub> predicted level. It should be noted that the modelled results for this parameter are similar for the 46 metre stack as for the 40 metre stack. Some parameters, as would be expected, show a lower concentration for the higher stack e.g. short term SO<sub>2</sub> level. The maximum predicted levels in these cases, however, are relatively small percentages of the ambient air quality standard. In the circumstances, I consider that the benefit of the higher stack

from the point of view of air quality is relatively small. Having regard to the air dispersion modelling carried out and to the nature of the proposed stack emissions, I also consider that an increase in the height of the stack from 40 to 46 meters would not have any significant impact in terms of odour attenuation.

- 2.3 The second effect of the stack height would be its visual impact and the effect on the visual amenities of the area. Due to the topography of the area, the existing plant's visual impact is relatively small, particularly if one excludes the impact of the plume from the consideration. The plant can be clearly seen from some close up views on College Road and to a lesser extent from some minor roads at a higher level to the north east. Generally, however, there are only glimpsed views of the higher elements of the plant (and the plume) from the general road network in the area. The existing plant is not visible from the main avenue leading to Whitewood House to the west. The impact on the setting and ambience of this property has been assessed in the inspector's report. There are views of the higher elements of the plant (some of the higher stacks) from a location, within the grounds, to the south of the house where the view is not interrupted to the same extent by the existing vegetation or, in particular, the trees along the avenue leading to the house. A 40 or 46 metre stack would be visible from this location. At the distance in question, however, I consider that the difference between a 40 metre stack and a 46 metre stack would be marginal. A 46 metre stack would inevitably be visible above landscaping etc. from some locations from where a 40 metre stack would not be visible. It would also be more pronounced in local views.

Overall, however, I do not consider that the difference in visual amenity terms would be such as to clearly determine that one is significantly more acceptable or unacceptable than the other. Everything else being equal of course the lower stack would be preferable from a visual perspective.

- 2.4 The brief does not specifically refer to the plume visibility although to some extent this is related to the stack height. I consider, however, that the difference between the height of the plume from a 46 metre stack and a 40 metre stack at the same ambient temperature and other parameters would be marginal. I also consider that the difference between the visual impact of the plume from a 46 metre stack and the plume from a 40 metre stack would be marginal when considered in isolation or cumulatively with other plumes from the existing facility and in particular the dominant plume from the TEAP stack. I am somewhat sceptical about the plume heights calculated for the existing and proposed plume, having regard to the photographs, DVDs and documentation submitted and also having regard to the original EIS where the maximum predicted height of the plume from the CHP plant was predicted to be 158.3 metres and it was predicted that for about 60% of the year the vertical height of the plume from the proposed CHP plant would not exceed 99 metres. I find it difficult to accept the predicted maximum vertical height of the plume as 64.5 metres for the 40 metre stack and 69.8 metres for the 46 metre stack as now predicted on tables 3-9 and 3-10 of the RSK assessment submitted with the additional information. I consider, however, that if the maximum moisture content of the plume is so small in comparison to that from the TEAP stack (0.002% compared to 1.27%), as given in the tables referred

to, the plume from the TEAP stack would remain the dominant plume from the extended facility. The moisture content from the CHP plant seems very low considering the nature of the material to be burned and incinerators generally have significant visible plumes. DVDs submitted, in response to the additional information, indicate plumes of significant height which, on some occasions, are visible from the grounds of Whitewood House and from the protected view across Whitewood Lake from the west.

2.5 With reference to the visual impact of a 46 metre stack in comparison to a 40 metre stack, I note that in 2003 the applicant (College Proteins), when appealing a decision by Meath County Council to refuse permission for a development on the site of the proposed development, (the applicant was then a party not involved in the current application), argued that the drawings submitted indicated a stack of 25.08 metres in height. It was submitted that there was no reference as to how a stack of this height would impinge on the landscape of the area. It was stated that as the area was mainly an agricultural one the stack would be seen from quite a distance. It was also argued that there was no mention of whether any measures had been put in place to reduce the visual impact of both the stack and the plant itself. This appeal, which related to an application on the lands which are the subject of the current application and which had been refused permission by the planning authority, was later withdrawn (File 17.201538 refers).

2.6 The site is located in an area identified as being of moderate landscape value, low vulnerability and of regional significance from a landscape perspective in



the Landscape Character Assessment contained in the current Co. Meath Development Plan. I consider that the difference between a 40 metre and a 46 metre stack would not be very significant in terms of impact on the landscape and visual amenity. The lower stack would however be preferable from this perspective.

### **3. Surface water management**

3.1 The plans submitted indicate that the surface water drainage from the existing plant is generally across College Road at a location to the south east of the existing access to the property and ultimately to a surface water drain through lands to the east. The plans indicate that it is proposed to drain the new development through a culvert beneath College Road to a surface water drain on the east side of the road and discharging towards the south east. The plans submitted do not indicate interference with the surface water drainage serving the existing plant.

3.2 Section 7 of the response to the request for additional information deals with the issue of surface water management.

3.3 It is proposed to collect roof water in rainwater harvesting tanks for use in the facility. Any overflow would be controlled by a hydrobrake and discharged via a silt trap into the access road drainage. Swales around the yard and oversized pipes also provide attenuation. The surface water discharge from the proposed development would be controlled by two hydrobrakes of 2.5

litres/second and 7.2 litres/second giving a total discharge of 11.7 litres/second (sic). It would appear that this should read 9.7 litres/second. (I note that in the original EIS 9.7 litres/second is referred to). The water would discharge via petrol interceptors to a drain with a capacity stated to be of 675 litres/second. This would lead to a ditch on the east side of College Road which has a stated capacity of 977 litres/second. This is indicated as leading to a ditch with a stated capacity of 4871 litres/second.

3.4 Details of a standard type management plan for the construction phase of the development are provided. This includes provision of a sedimentation pond/lagoon/tank to settle solids and other standard features to avoid water pollution during construction.

3.5 I noted on inspection that, due to the construction of a roadway generally along the line of where the surface water drain on which point M is indicated on drawing No. 898-5-C11 (submitted on 24<sup>th</sup> September 2010) the drain indicated is not clearly visible and defined. I noted that surface water at this location flows along the surface of the roadway onto the public road and it causes some flooding problems at the access to the house a short distance to the south east. There are drains, however, at points L and K on the opposite side of College Road. There is also a drain on the south side of the lane, opposite point L, to the east of College Road. This drain seems to take most of the surface water at present rather than the drain where L is indicated on drawing No. 898-5-C11. I also noted on inspection that the water in the drain where point J is indicated on the relevant drawing appears to flow north

eastwards rather than in the opposite direction as indicated (see attached map). The water from the road seems to flow along this drain (at a low velocity) rather than into the drain where K is indicated on the map. I noted on inspection that silt, which appears to cross College Road, is carried in this drain beyond the confluence with the drain where K is indicated. The water in this latter drain seems to be almost stagnant, although there is a significant sized drain at this location.

- 3.6 I have doubts about some aspects of the drainage plan as indicated. I consider, however, that, having regard to the relatively low discharge flow proposed, it would be possible to discharge surface water to the surface water drainage network on the east side of College Road without radically altering existing conditions to the east or giving rise to a significant flooding problem. (The applicant appears to have control over a significant amount of the lands to the east of the road). The drain on which J is indicated appears to flow towards the network of drains to the east where the surface water, from the existing plant, currently discharges. I consider that it might be better and more direct to provide a connection to the south side of the access lane (which leads to a house about 300 metres to the north east) rather than discharge to the drain on the north side of the lane. This would avoid the need for the culvert indicated across the lane on drawing number 898-5-C11. This, however, is a point of detail and I consider that the outlet proposed is adequate for surface water discharge at the rate proposed. I consider that details of the culvert to be provided beneath College Road should be agreed with the planning authority.

3.7 I consider that the greatest danger to surface water will arise during the construction phase of the development and, in particular, the landfill proposed. The latter development has the potential to impact on the western stream and will be dealt with in comments on issue No. 6. It is desirable that some type of lagoon/sedimentation pond be provided also for the construction phase of the CHP plant as proposed in the further information submitted. The Board will be aware that the EPA does not deal with pollution issues arising in the construction phase of a development. I consider that facilities such as lagoons/sedimentation points will be required to protect both the eastern and western surface water discharge systems during the construction of the development. The plans indicate a significant amount of cut to reduce ground level at the CHP site in phase 1. A significant amount of the cut material would be used in the construction of cell no.1 of the landfill. Spare material would be stored in the proposed soil deposition area near the western stream. The earth movements involved would have the potential to contaminate surface waters to the east and west unless adequate attenuation facilities are put in place.

**4. Potential impacts on underlying aquifer and western stream from the development (except the landfill) having regard to reliance on liquid waste streams**

4.1 The liquid waste streams referred to are presumably the 52,500 tonnes of liquid waste to be used to 'condition' the MBM. There is some argument and dispute in the documentation in relation to the source of this liquid waste.

4.2 The liquid waste in question would become part of the fuel used in the combustor. On this basis it would have no impact on either the aquifer or the western stream. In the event of there being spillages on site, it could of course impact on the water resources of the area. Subject, however, to proper management of the facility such spillages should not occur. The details of the process submitted in response to the Board's request for further information should ensure against any such spillages. In the event of there being any spillages, the aquifer seems generally to be well protected at the location of the processing plant by the overlying boulder clay. The surface water drainage system as proposed is to the east rather than to the west and any spillages diverted to the effluent treatment plant would not impact on the western stream as the treated waste water, not reused in the plant, is landspread on lands to the east. Reference is made in the discussion on item 5 of the consultant's brief to the possibility of the liquid waste stream proposed not being realised and water from the on-site well being used as a substitute.

4.3 The plans submitted, e.g. drawing no. 898-1-D02 Rev. A, suggest that the liquid waste tanks would not be located in a bunded area. The necessity for this however would be a matter for the EPA to consider in a licence application as the storage of the liquid waste is clearly associated with and related to the activity for which a licence would be required. In any event, I do not consider that there is a significant danger to the underlying aquifer or the western stream from the use of a liquid waste stream as proposed.

**5. 'Worst case' scenario of increased water abstraction from on-site well having regard to the existing permitted abstraction levels (stated to be 120,000 m<sup>3</sup> per annum at the oral hearing)**

5.1 This is a difficult issue to analyse having regard to the information and documentation submitted. The EPA licence for the facility does not contain any condition allowing or restricting water abstraction. The basis for the figure of 120,000 m<sup>3</sup> per annum is, accordingly, unclear. A condition relating to resource use requires that the applicant identify opportunities for reduction in water usage. The licence also contains a limit on waste water to be sent to landspreading. The maximum daily rate from June 2002 is given as 100 m<sup>3</sup>. It would not, however, be realistic to interpret this as a limit on water abstraction or usage as landspreading would not be possible or appropriate at various times of the year and during certain weather conditions. It must also be borne in mind that a lot of the water used is discharged through various stacks rather than being diverted to the effluent treatment plant.

- 5.2 The documentation submitted indicates that water usage at the existing plant has decreased significantly over the past number of years. Table 2.1 of the AWN Consultant's Report containing the hydrogeological assessment indicates that the maximum abstraction rate was in 2000, when 93,500 m<sup>3</sup> was abstracted. The figure for 2009 is given as 23,762 with an estimate for 2010 of 21,500. Figures for the late 1990's and early 2000's were in the order of 60,000 to 70,000 m<sup>3</sup> with significant decreases from 2002. The predicted abstraction rate with the CHP plant in operation and a rainwater harvesting system in place is given as 22,250 m<sup>3</sup>. A worst case scenario with no rainwater harvesting in place is given as 28,084 m<sup>3</sup> per year. It is stated that this will be at an average pumping rate of 5.5 m<sup>3</sup> per hour.
- 5.3 Pumping at an average pumping rate of 5.5 m<sup>3</sup> per hour over the entire year would, however, give a total abstraction of 48,180 m<sup>3</sup> per year. It would seem that continuous pumping at 5.5 m<sup>3</sup> per hour is not envisaged.
- 5.4 It is stated that the pump test was carried out at an average of 5.94 metres/hour. (This would give a yearly abstraction of 52,034 m<sup>3</sup> if pumping was continuously carried out at this rate). In the circumstances, there seems to be no basis for the worst case abstraction scenario being 120,000 m<sup>3</sup> per year.
- 5.5 It seems reasonable to accept the applicant's worst case scenario as being in the order of 28,000 m<sup>3</sup> per year. If the Board has concerns about this it could impose an abstraction limit on the extended plant if planning permission is

granted. As the control would essentially be to reduce or control any impact on base flows and on any downstream springs or wells, I do not consider that such a condition would be in conflict with sub-section 37 G (4) of the Planning and Development Act, 2000, as amended, as such a condition would not be for the purpose of controlling etc. emissions from the activity for which a licence from the EPA is required.

5.6 Having regard to the pumping test carried out and to the hydrogeological features of the area, I do not consider that an increase in the abstraction of water up to 28,000 or 30,000 m<sup>3</sup> per year would have any significant impact on the water flow in the western stream or the spring located at a distance of approximately 1 kilometre to the south.

5.7 It is not clear from items 4 and 5 of the brief if the Board is concerned that the entire 'liquid waste stream' would have to be provided through increased ground water abstraction. I consider that it is most unlikely that 52,500 m<sup>3</sup> of water would be abstracted in order to 'condition' the 52,500 tonnes of MBM to be burned in the CHP plant. It would appear more likely that treated effluent would be used (rather than spreading this on land) at least in part, although the documentation suggests that 52,500 m<sup>3</sup> of treated effluent would not be available. This, in any event, is not the proposal before the Board for consideration. The possibility of this happening could be excluded by a condition limiting abstraction to a figure close to the maximum proposed in the documentation submitted. A maximum pumping rate per hour or day might also be considered in order to limit water abstraction during periods of low



flows. Pumping and water abstraction during periods of high flows would not cause any problem and could be beneficial in terms of reducing flooding and/or water logging of land. (These are common features in this drumlin area).

- 5.8 A critique of the hydrogeological assessment carried out is contained in the submission from the NEAI Group and in particular the review of the response carried out by OGE Hydrogeology. Some mathematical errors in the tables are referred to and it is argued that the submission from the applicant does not contain a calculation of the base flow from the aquifer to the stream.

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- 5.9 Having regard to the level of the stream at the western side of the College Proteins' lands relative to the aquifer level in the bedrock, I consider that it is unlikely that there is any significant base flow, from the bedrock aquifer, to the stream at the location where the stream abuts the applicant's lands. The flow measurements in the stream at the location measured indicates no flow at certain times. The O.S. map to scale 1:2500, however, indicates that there was a well at one time near the southern corner of the field where the archaeological monument is located (see attached map). The presence of this well does not appear to have been investigated in the hydrogeological assessment. The supply to this well is not clear. It may have depended on some local sand or gravel lenses, rather than being fed from the bedrock aquifer. (The well may have served a building marked on the O.S. map, but which no longer exists.) The documentation submitted indicates that the bedrock is not close to the ground surface at the general location where the well is indicated e.g. RC4 on figure 8.7 in Appendix 8 of the EIS appears to be

located relatively close to where the well is indicated (and at a lower level). The log record for RC4 (contained in Appendix No.7) suggests that the bedrock is well below ground level (over 28 metres) at this location. Cross section 2-2 through the landfill as indicated on drawing no. 898-1-C04 Rev. J which would, at it's western end, be close to the location of the well also indicates the rock head well below ground level. In the circumstances, it does not seem possible that a well at this location would have been fed by the bedrock aquifer. (I could not identify the well during inspection although there was some ponding of water in the general area.)

- 5.10 It is probable that there would be a greater contribution to base flow at the lower level where the OGE Group carried out its measurements and where the spring referred to in paragraphs 5.13 and 5.14 is located. There is, however, no information or argument made to the effect that the low flow in the stream in question has any particular significance in terms of ecology or the provision of a water supply (other than from the spring referred to).
- 5.11 The OGE report presents an alternative ne of contribution for the existing well which it is argued should have a more west-east orientation to reflect the local ground water contours and gradient. (The OGE ZOC extends across the stream to the west and College Road to the east.) It is noted that the zone of contribution as given by OGE extends only slightly to the south of that given by AWN.

- 5.12 From the information submitted, I consider that the Board should accept the worst case scenario as being that indicated by the applicant and in the event of it deciding to grant planning permission impose any condition in relation to this that it considers necessary. There is no clear basis for requiring tests to be done on the basis of the abstraction of 120,000 m<sup>3</sup> per year.
- 5.13 The documentation submitted suggests that the pumping had little effect on other wells in the vicinity. It is unlikely that any additional pumping and water abstraction required to facilitate the proposed development will have a significant effect in base flows in the western stream or in the spring located close to this stream to the west of Shruhan Bridge. In Mr. O'Neill's submission to the oral hearing he submitted a map indicating a spring in this location. Due to the scale of the map it is difficult to identify the precise location of the spring. I note, however, that a spring is indicated on the O.S. map (see attached map). The spring seems to be located somewhat to the west of the location indicated by Mr. O'Neill. There is, however, no house or farmyard in the immediate vicinity. The spring is over a kilometre from the abstraction well in College Proteins' lands. I noted, on inspection of the spring, that water overflows from it to the stream to the south. The spring is located about 18 metres north of the stream.
- 5.14 A Mr. Dominic Horgan with an address in Muff, which is on the western side of the stream, stated at the oral hearing that the main water supply for his farm 'will be coming from a well in the townland of Leafin which is very close to the Shruhan Stream'. This is the well or spring in question. In a submission in

relation to the additional information, Mr. Dominick Horgan of Muff House stated that the applicant did not request to inspect the spring in question and that the spring is a valuable asset on his farm with potential for development as a business enterprise because of its high capacity. The documentation submitted by OGE on behalf of the NEAI Group, which suggests that the ground water flow is more towards the east than estimated by the applicant, would suggest less impact, if any, on the spring at this location arising from water abstraction to serve the College Proteins development. No evidence appears to have been submitted to the effect that the higher abstraction rates e.g. in 2000 had a significant effect. I consider that, having regard to the documentation and arguments submitted and the distance of the spring from the abstraction well in College Proteins lands that it is unlikely that the increased water abstraction proposed would have any significant effect on the spring or that any such effect would have relevance from a planning perspective.

**6. Observations on proposed landfill (hydrological and hydrogeological issues)**

- 6.1 My observations on this issue are made essentially on the basis of the landfill as indicated in the additional information submitted on 24<sup>th</sup> September 2010 i.e. with Cell No. 4 originally proposed now omitted and the landfill accordingly reduced in capacity.
- 6.2 The ash landfill as modified to omit Cell No. 4 would have a total capacity of 176,539 m<sup>3</sup>. It is estimated that this would provide adequate space for the bottom ash production over a 31 year period. The original EIS had stated that the ash landfill was envisaged as a temporary measure and that the applicant company had entered into discussions with a number of companies with a view to offering the ash for use as aggregate or a raw material for fertiliser manufacture. It was stated that ash is so used in Germany and Japan. The original landfill had provision for 38 years bed ash production (fly ash is to be disposed of as hazardous waste).
- 6.3 It is argued, in the response to the request for information, that the landfill retains adequate capacity for the expected lifespan of the facility and it is expected that alternative uses will be found making it unlikely that the full landfill capacity will be utilised.

- 6.4 The documentation indicates that the landfill proposed would be located on an aquifer of local importance (at most). The vulnerability of the aquifer beneath the modified landfill is low due to the depth of relatively impermeable material beneath the landfill liner. The cross sections indicate more than 10 metres to the rock level beneath all cells of the proposed landfill.
- 6.5 The landfill design is proposed in compliance with the EU Landfill Directive with a one metre clay liner with a conductivity of less than  $1 \times 10^{-9}$  m/second. There would also be a HDPE liner and the ash, which would be relatively inert, would be contained in watertight bags. Leachate would be collected, pumped to a leachate tank and treated as necessary. The landfill proposed would be a relatively small one in comparison to most modern landfills. I consider that the landfill would not give rise to any significant danger of pollution of the underlying aquifer (I note the statement in the original EIS to the effect that a conductivity of  $1 \times 10^{-9}$  means that water would theoretically travel through the liner at the rate of 0.0000000001 metre per second and at this rate it would take water 31 years to travel through the 1 metre liner. I consider that this contains a typographical error and that 0.0000000001 should read 0.000000001. The travel rate of 1 metre per 31 years however seems correct for a liner of  $1 \times 10^{-9}$  metres/second conductivity).
- 6.6 I note that the applicant has clarified that bentonite enhanced soil is not proposed as it is considered that there is adequate suitable soil on site to achieve the required strength of liner.

- 6.7 I consider that the general approach adopted in relation to the ash landfill is reasonable based on the information provided and the documentation submitted. I comment further on issues relating to the size of the landfill and the amount of ash to be produced in my comments on item No. 7 of the brief.
- 6.8 I consider that the greatest problem likely to arise from the construction of the landfill would be the danger of pollution of the western stream due to suspended solids and sediment being carried into the stream. The soil on site is of a gley variety with very poor drainage. At the time of my inspection the lands were extremely wet with the surface waterlogged. Some of the site sloped quite steeply downwards towards the stream to the west and south west. It will be essential that some sedimentation lagoon be provided in order to prevent sediment entering the stream. This issue is addressed in section 9.1.2 of the response to the request for additional information. It is proposed to construct a 'silt fence' to protect the stream. Details of this and sedimentation ponds should be agreed with the planning authority if permission is granted. Plans for the protection of the western stream from pollution would also have to be co-ordinated with the landscaping proposals. It is stated at 14.9 of the EIS that the landscaping proposal in figure 14.19 describes the screen planting which will be established on site prior to the construction of the development and landfill operation. Proposals for the protection of the western stream as referred to above would have to be co-ordinated with the landscaping - The landscaping plans (prepared by Park-Hood Landscape Architects) are seen more clearly in document No. 37 submitted to the oral hearing. (The Board will be aware that according to the

High Court decision in the USK landfill case it must consider the environmental effects arising from the construction of the landfill. These construction activities will be on-going, even if intermittent, during the life span of the development. Two separate sets of controls ie. planning control on construction activities and EPA controls on operational activities will apply to the landfill).

6.9 The 1:2500 OS map for the area indicates a well in lands belonging to the applicant between the landfill and the stream in the south corner of the field (of 8.707 acres) where the archaeological feature (Liskilleen) is located (see attached map). I could not detect a well at this location during my inspection, although there was some water ponding in the general area. I have commented on this issue at 5.5 above. I do not consider the issue to be particularly significant however but it emphasises the poor drainage characteristics of the site.

6.10 The revised landfill proposal indicates a shortfall of material for capping the final cell on completion of the landfill. I do not consider that this would be significant in terms of traffic generation or from any other planning perspective.

## **7. Bed/Fly Ash Ratio**

7.1 This issue is covered in section 10 of the response to the request for further or additional information. It is stated that the ratio of 70% bed to 30% fly ash



was derived from combustion trials conducted by College Proteins using a fluidised bed pilot plant at the Lurgi Design and Research Complex in Frankfurt, Germany. It is stated that the plant has a capacity of up to 1 tonne of waste per hour. It is submitted that the pilot plant configuration was similar in outline and concept to the proposed plant.

7.2 It is argued that College Proteins has made substantial investment in the pilot trials and the data must remain confidential as it would provide an invaluable advantage to any competitor. It is stated that, given the nature of a pilot plant, there is always a degree of uncertainty attached to the results and it was, accordingly, decided to use 'the bed ash to fly ash ratio obtained as the likely worst case'. It was decided to use the 70/30 ratio on the basis that this would lead to a conservatively sized landfill.

7.3 With developments in the design an upper limit of bed ash to fly ash has been proposed. It is stated that this will be used in the sizing of the fly ash generation and handling equipment. The estimate of upper limit for fly ash is 53% with the bed ash comprising 47%. It is submitted that both the landfill and fly ash handling equipment may accordingly be oversized. It is submitted that this precautionary principle has been applied to the design.

7.4 Full details of the results of the trial tests at the pilot plant have not been submitted. There seems no obvious reason, however, why the figures given do not represent those obtained in the trial testing. It is not clear, however, if the pilot plant used 50% of the total feed in the form of liquid waste or indeed

if this would affect the ratio (it would clearly affect the total quantity of ash as a percentage of the total feed – see table 10.1 of the response to the request for further information). Whilst I have no reason to doubt the ratios given, I would like to see some verification through independent research. It would also be useful to see figures from the Goosey Lodge plant referred to in the documentation. The smaller scale of the pilot plant could also have some impact on the relevance of the comparison.

7.5 I note from other CHP and/or incinerator plant proposals that the ratio given for bed to fly ash varies. The figures given for the Dublin City proposal in Poolbeg indicate 80% bed ash and 20% fly ash approximately. The figures for the proposed facility in Rathcoole were 60% bed 40% fly. The current figures are about half way between the two. The nature of the wastes being burned, however, are different and different technologies are involved. The total ash figure of 14,017.5 tonnes per annum seems small for a facility with a capacity of 105,000 tonnes per annum (13% ash). This is, however, at least partially explained in Table 10.1 of the additional information response. The percentage of ash from the MBM component would be about 26% which seems reasonable based on other facilities.

7.6 The implications for variations in the ratios relate to the facilities for handling the ash and transport. The applicants indicate that they are taking a precautionary approach by designing for the maximum expected bed ash in terms of the landfill and providing fly ash handling facilities for over 50% of the total ash production.

7.7 Any implication of the varying ratios in terms of traffic has been provided for in the traffic assessment where the assessment was done on the basis of the entire amount of ash generated being taken off site. A greater or smaller ratio of bed ash would have implications for the life span of the ash landfill as this has stated capacity for 31 years at a 70/30 ratio. I do not consider that there would be any significant problems arising due to the size of the landfill in the event of this ratio being somewhat different. (The landfill would have adequate capacity for over 26 years production at 80% bed ash and over 35 years at 60% bed ash). It would be a considerable number of years before any problem would arise and I consider that the disposal of bed ash to an alternative landfill, if necessary, would not be an insurmountable problem.

## **8. Legislation and policy changes since November 2009**

8.1 Any legislative and policy changes arising from November 2009 to May 2012 have been documented and commented on in detail in the applicant's submission which was received by the Board on 24<sup>th</sup> May 2012 and the numerous submissions made in response to the further information.

8.2 In my commentary, in order to avoid confusion, I intend to concentrate on any major changes which may be relevant to the proposed development in the context of the proper planning and sustainable development of the area.

- 8.3 The Board will be aware, from the legal case of *Kenny v An Bord Pleanála*, that an application falls to be decided on the basis of the legislation pertaining at the date on which the application was lodged. An exception to this may arise in a situation where the national legislation on the date in question failed to have transposed some provision in European legislation, which is clear and precise, and which should have been transposed at the date in question. My comments on issue No. 10 may be considered relevant in this regard.
- 8.4 European Regulation (EC) No. 1069/2009 and the implementing Regulation 142/2011 are specifically referred to in the documentation and have replaced Regulation (EC) 1774/2002 which was commented on in detail in the earlier documentation and at the oral hearing. In my opinion the regulations in question do not significantly alter the situation from what pertained under EC Regulation 1774/2002 in so far as they may have implications relevant to the perspective of proper planning and sustainable development. The Irish regulations implementing the updated EU regulations i.e. S.I. No. 150 of 2011 emphasise the fact that the basic provisions of the EU Directive were not altered. The regulations of 2008 (S.I. No. 252 of 2008) were updated to allow for the 2008 Regulations to be continued in use by merely changing the references in the 2008 Regulations to now refer to the relevant provisions in the two EU regulations referred to (see S.I. No. 150 of 2011).
- 8.5 I note that the EU regulations, referred to in 8.4, are essentially intended to protect human and animal health, food and the food chain. The regulations which refer to animal by-products do not specifically refer to the waste

hierarchy as referred to in the EU Waste Directive. The regulations referred to are separately enforced by the Department of Agriculture, Fisheries and Food. The regulations set out definitions of various categories of animal by-products. They refer to acceptable use and disposal options and they specify some requirements for various plants. Disposal and use options for Category 1 material are more limited than for Categories 2 and 3. I note however that disposal by means of incineration is listed as an option for all categories. (Articles 12, 13 and 14 of 1069/2009). I am not aware of any specified requirement (in the regulations) which cannot be met in the proposed development in so far as such relates to the proper planning and sustainable development of the area. It would appear that a plant can be developed at this location to meet the specified requirements although ensuring compliance with the various requirements is a matter for the Department of Agriculture, Fisheries and Food.

- 8.6 S.I. No. 126 of 2011 i.e. the European Communities (Waste Directive) Regulations 2011 came into effect on 31<sup>st</sup> March 2011. These regulations were enacted to give effect to the EU Directive 2008/98/EC on waste. Subsequent amendments contained in S.I. No. 323 of 2011 should be noted.
- 8.7 The 2011 regulations amend the Waste Management Act of 1996 in certain respects. Section 3 is amended with a revised section substituted. This section states that the Act does not apply to certain waste streams. Included in the waste streams to which the Act does not apply are wastewaters, animal by-products and the carcasses of animals that have died other than by being

slaughtered, including animals killed to eradicate epizootic diseases and that are disposed of in accordance with Regulation (EC) No. 1069/2009.

- 8.8 An amendment contained in S.I. No. 323 added a rider to the exemption relating to animal by-products to the effect 'except those which are destined for incineration, landfilling or use in a biogas or composting plant'.
- 8.9 A new Article 21A was inserted into the Waste Management Act. This states that the waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy. The hierarchy is set out in the new section. It is further stated that in applying the waste hierarchy the Minister, the Agency and local authorities shall take measures to enforce the options that deliver the best overall environmental outcome. (An Bord Pleanála is not specifically referred to). It is noted from Article 4 of the Directive that the hierarchy is to apply "in waste prevention and management legislation and policy". There is no specific reference to project determination although it is accepted that cases should be determined on the basis of a policy framework.
- 8.10 The 1996 Act which applied at the time of the application did not contain a specific provision in relation to the waste hierarchy as is now contained in section 21A. The exemptions from the provisions contained in the 1996 Act given in section 3 of that Act did not refer to animal by-products.
- 8.11 It is noted that paragraph No. 31 of the preamble to Directive 2008/98/EC states that the waste hierarchy generally lays down a priority order of what

constitutes the best overall environmental option in waste legislation and policy while departing from such hierarchy may be necessary for specific waste streams when justified for reason of inter alia technical feasibility, economic viability and environmental protection.

- 8.12 The extent to which compliance with the waste hierarchy set out in the EU Waste Directive and in Section 21A of the 1996 Act as amended is obligatory, is not clear cut in this case, having regard to the context in which the hierarchy is referred to in Article 4 of the Directive (see 8.9 above), the nature of the waste and the date of the application. In relation to animal by-products, it could be argued that the exception provided for in S.I. 323 of 2011 only requires that disposal and general environmental protection issues contained in the EU Directive have to be respected. To attempt to apply the entire provisions of the Directive including those relating to the waste hierarchy to animal by-products would seem to effectively negate the general exemption (for animal by-products). In terms of the other liquid wastes it could be argued that because of the date of the application the provisions of S.I. No. 126/2011 and section 21A inserted into the 1996 Act do not apply. (Article 40 of EU Directive 2008/98/EC required that member states transpose the Directive by 12<sup>th</sup> December 2010). The arguments as to whether or not the hierarchy is being applied are not clear cut in any event and the preamble to the Directive referred to above seems to allow for departures in specific circumstances. The hierarchy was referred to in a more generalised format in the earlier EU Directive. Compliance with the hierarchy could also be considered a

reasonable principle to apply in determining proper planning and sustainable development.

- 8.13 There is considerable discussion in the documentation in relation to the Waste Policy Discussion Document issued by the Department of the Environment, Community and Local Government in August 2011. This discussion has to a great extent now been rendered futile due to the publication by the Department of the Environment, Community and Local Government of 'A Resource Opportunity - Waste Management Policy in Ireland', in July 2012.
- 8.14 The policy document issued in July 2012 does not specifically deal with the waste stream in question here and in particular the animal by-products/MBM stream. It is a general policy document which is more geared towards the management of municipal waste.
- 8.15 The policy document is cognisant of the need for compliance with the requirements of EU Directive including the waste hierarchy. It is envisaged that the number of regional bodies will be reduced to no more than three. This would allow for greater mobility to waste facilities although this was in effect already provided for in waste policy.
- 8.16 It is stated in the 2012 policy document that in keeping with the proximity and self sufficiency principles a key objective of waste management plans will be to ensure a sufficiency of waste management infrastructure within the state to manage municipal waste. It is noted that this objective refers to municipal



waste and no specific objectives are set out for specific waste streams such as that in question here.

8.17 It is noted in the policy document that Ireland still has an unsustainable dependence on landfill as a method of managing its waste. It is also stated that, given our dependence on imported fossil fuels and the challenges which this presents for a sustainable energy policy, it is important to harness the potential of waste to contribute in a significant manner to displacing the use of finite fossil fuel resources. A number of ways through which waste can be used to produce energy, including thermal treatment, are referred to. To some extent the proposed development would be in compliance with this general provision although the energy efficiency figure seems to be quite low. The policy document also highlights the need to strike a balance between the development of essential infrastructure and the importance of ensuring that material which could be used or recycled is not drawn down the hierarchy and that waste generation is not encouraged in order to provide feedstock for recovery processes.

8.18 Overall, while emphasising the need for compliance with the waste hierarchy and the provisions of the EU Directive, the policy document of July 2012 is not of great value in terms of assessing the issues arising in relation to the project in question in the current application.

8.19 I do not consider that the arguments made in relation to the Regional Planning Guidelines for the Greater Dublin Area 2010-2022 have any great relevance

to considerations relating to this particular application. The specific waste stream in question is not referred to and the facility seems intended to be a national rather than regional facility.

8.20 It is accepted that the provision of economically viable options for dealing with waste streams generated by the economy is desirable for the development of the region and indeed of any region. I do not, however, consider that the general provisions and policy statements quoted by the consultants on behalf of the applicant give particular or significant strength to arguments in favour of the particular development in question. Neither do I consider that the guidelines can be relied on to support arguments against the development.

8.21 The current application must be assessed against the provisions of the current County Meath Development Plan i.e. the 2007-2013 Plan. While some provisions in draft plans may have legal significance e.g. listing of protected structures or proposed protected structures, there is no evidence in the submissions to the effect that any change in the listings proposed would have an impact on the considerations relating to the proper planning and sustainable development of the area arising in the current application. Issues relating to impact on protected structures listed in the current plan have been addressed in the inspector's report.

8.22 In commenting on the Draft Development Plan 2013-2019 consultants on behalf of the owner of Whitewood House (a protected structure) stated that the Minister for Arts, Heritage and the Gaeltacht has now determined that

Whitewood House is intrinsically of significant historical and architectural interest, that other structures in the estate are also intrinsically of significant architectural interest and that the garden/designated landscape is intrinsically of significant aesthetic interest. It is stated that a representation will be made to include the view from Whitewood House along the avenue towards the east in Appendix 12 of the Plan in addition to item 19 which reapplies the protection of the view towards Whitewood House from the west. It is submitted that it would be reasonable to include the view from the house towards the east as Whitewood House will be open to the public. It is argued that the proposed stack and plume would contravene any such development plan objective. I consider that the application must be dealt with on the basis of the current Development Plan. The protection of the view to the east from the grounds of Whitewood House is not a specified objective of the current plan. Mr. Green, in his report has given his assessment of the impact of the proposed development on the setting etc. of Whitewood House. Two of the DVDs, including that from the owner of Whitewood House, submitted in response to the further information submitted on the 24<sup>th</sup> September 2010 contain views of the existing plume from the grounds of Whitewood House.

8.23 There is no evidence on file of any variation made to the County Meath Development Plan 2007-2013 being of significance in terms of considering the current application.

8.24 I accept that, due to the generation of energy, the development would help to achieve national targets for renewable energy. The contribution from the plant

would, however, be relatively small and it is possible that other technologies could be used in order to convert the energy from the raw material to useable energy. The development would, however, make a contribution to the process (see applicant's consultant's comments on EU Directive 2009/28/EC.).

- 8.25 I believe that the expiry date for the North East Region Waste Management Plan 2005-2010 has been extended to 31<sup>st</sup> December 2012. I understand, however, that at the present date a new plan has not been made or published.

## **9. Material changes in circumstances since November 2009**

- 9.1 The major change in circumstances which has arisen and which has given rise to controversy and argument in relation to the application is the decline in the amount of Category 1 MBM being produced and the amount held in storage.
- 9.2 The original application was made on the basis of 52,500 tonnes of MBM being burned in addition to 52,500 tonnes of waste organic liquids. The combined total was 105,000 tonnes which brought the development above the minimum figure of 100,000 tonnes required to qualify for inclusion in the 7<sup>th</sup> Schedule of the Planning and Development Act 2000, as amended, and consequentially possible treatment as Strategic Infrastructure Development.

- 9.3 Table 5 of the applicant's consultants submission indicates that the total intake of raw materials for Category 1 and 3 animal by-products plants in Ireland (there are no Category 2 plants), decreased from 549,882 tonnes in 2007 to 474,861 tonnes in 2011. MBM produced decreased from 149,659 tonnes to 132,661 tonnes. Table 6 indicates the figures for Category 1 waste. The production of Category 1 MBM from the plants decreased from 96,266 to 68,966 tonnes.
- 9.4 Table 8 of the applicant's submission indicates that in 2008 there was 48,410 tonnes of Category 1 MBM in storage. This had reduced to 9,815 tonnes in 2011. The total amount of MBM in storage in 2008 was 81,166 tonnes and this had reduced to 10,149 tonnes in 2011.
- 9.5 In reviewing the figures given above, it must be borne in mind that any animal by-products processed in a Category 1 plant by definition becomes Category 1 (arguments are made that some of the category 1 plants, including College Proteins, are processing non Category 1 material).
- 9.6 The tables submitted indicate that the amount of Category 1 MBM produced in 2011 had reduced by about 28% in the 5 year period. MBM produced in Category 3 plants had increased by about 19% in the same period. This suggests a greater targeting of Category 3 material to Category 3 plants.
- 9.7 A number of reasons are set out for the fall in MBM production. These include the fall in sheep numbers and the export of live animals. Indications are that

the 2012 figures will be further reduced but Meat Industry Ireland expect to see the numbers back up in 2013.

9.8 The applicant submitted an analysis of future trends in Irish agriculture, mainly based on a document entitled 'Food Harvest 2020: A Vision for Irish Agri-Food and Fisheries', published by the Department of Agriculture, Fisheries and Food in 2010. There is significant argument in relation to the status of this document i.e. whether or not it is Departmental policy or a vision of the industry stakeholders. Having regard to the uncertainty involved in forecasting future agricultural production, I would be reluctant to place significant reliance on the projections contained in Food Harvest 2020, irrespective of its status, (in the absence of the carrying out of an SEA for the vision, I consider that it cannot be considered a programme or plan, officially endorsed by the government). Some of the targets e.g. 50% increase in milk output seem very ambitious.

9.9 The applicant points out that, since the closure of the oral hearing, College Proteins have purchased Premier Proteins Category 1 Plant in Ballinasloe. It is submitted that between the two plants i.e. Nobber and Ballinasloe, they produced about 32,100 tonnes of MBM in 2011 (46% of the 68,966 total). The opponents of the development point out that the Ballinasloe plant has been closed and there is no guarantee that customers or providers of animal by-products to that plant will now supply College Proteins.

- 9.10 The applicant submits that there is adequate MBM available to feed the proposed development and in any event the plant can be run to any output from 100% down to 70%. It is submitted that any further reduction in the availability of MBM would simply result in longer planned shut downs on an annual basis without any impact on the plant's typical 24 hour per day 7 day per week operation. (The applicant also argues that in recent years there has been a significant amount of MBM (Category 1) exported to Northern Ireland for treatment. It is argued that this is not sustainable or desirable and the company expects it to return to Irish plants in the future).
- 9.11 The opponents to the development argue strongly, on the basis of the Category 1 MBM figures and the genuine percentage of a carcass which is Category 1, that there is no need for the development, that it is not strategic infrastructure and that permission should consequently be refused.
- 9.12 The MBM figures seem to suggest that the problem envisaged in 2008, when pre-application discussions took place, are somehow being resolved even in the absence of the proposed development. Recent figures suggest that it will be difficult for the developer, if permission is granted, to source the 52,500 tonnes of Category 1 material planned for. This casts some doubt on the argument that the proposed development is strategic infrastructure as defined in the Planning and Development Act 2000, as amended, (an annual intake greater than 100,000 tonnes is required for qualification as a 7<sup>th</sup> Schedule development). Operating at 70% below capacity would indicate an annual throughput of about 74,500 tonnes.

- 9.13 The issue of whether or not the development should be determined to be strategic infrastructure has, however, already been determined by the Board's decision on the issue dated 27<sup>th</sup> February 2009. This was determined in good faith on the basis of the information submitted and circumstances prevailing at the time. The application must now be determined on its merits, having regard to the proper planning and sustainable development of the area.
- 9.14 The opponents of the development emphasise that there is no need for the development due to the diminishing amount of MBM and the availability of an alternative disposal option through cement kilns. It is suggested that the applicant's current production of MBM is only about 20,000 tonnes, although figures for recent years are not made available. (It is argued that the existing plant gives rise to serious problems for residents in the area and that the planned expansion should not be permitted).
- 9.15 Intermittent use of the plant would give rise to some problems as start ups would be more frequent with corresponding greater emissions. The link ups with the existing plant would also give rise to some complications e.g. the proposal to extract air from the existing plant would have to be balanced with the need to provide, on a continuous basis, for odour abatement facilities serving the rendering plant. Reduced load would also have an impact on energy output in terms of electricity and heat.



9.16 I consider that an argument to the effect that the applicant must prove a need for the facility may be somewhat simplistic. It is not a general requirement in the Irish planning management system to require the applicant to prove in some manner that there is a need for a development. I accept that the situation may be somewhat altered in a situation where a development is promoted as strategic infrastructure, is claimed to be filling an identified need in the national or regional infrastructure and where it is claimed that special consideration should be given to these issues. It is, however, generally accepted that if a development does not give rise to significant environmental problems and is held to be in accordance with the proper planning and sustainable development of the area, permission should be granted. On the question of need, the applicant, to some extent, relies on the preamble at paragraph 20 of EU Directive 1069/2009 which is quoted by the applicant's consultants on page 11 of the response received on 24<sup>th</sup> May 2012. The highlighted section refers to the scope of the collection and disposal system, taking account of the actual amount of animal by-products provided in a member state, and also on a precautionary basis, the need for extended disposal capacities in the event of major outbreaks of transmissible diseases.

## **10. Screening for Appropriate Assessment (Article 6.3 of EU Habitats Directive issue)**

10.1 The Planning and Development (Amendment) Act 2010 inserted Part XAB into the Planning and Development Act 2000. There have been some subsequent amendments to the provisions contained in Part XAB. The purpose of Part XAB is to give effect to the EU Habitats Directive in so far as the planning system is concerned.

10.2 Prior to the insertion of Part XAB, the Habitats Directive was transposed into Irish legislation through the European Communities (Natural Habitats) Regulations 1997 – S.I. No. 94/1997. These regulations were not, however, updated to take account of the Planning and Development Act 2000 and subsequent amendments to that Act.

10.3 Part XAB is implementing the provisions of the Habitats Directive in so far as planning legislation is concerned. Section 177U requires that a screening for appropriate assessment shall be carried out by the competent authority to assess if, in view of the best scientific knowledge, a proposed development, individually or in combination with another project, is likely to have a significant effect on a European Site. The competent authority must determine that an appropriate assessment is required if it cannot be excluded on the basis of objective information, that the development, individually or in combination with other plans, will have a significant effect on a European Site.

- 10.4 It has been argued, in some of the submissions, that screening for appropriate assessment is required e.g. An Taisce submission. No argument has, however, been submitted in support of an argument that such an assessment is required.
- 10.5 Chapter 9 of the EIS deals with the issue of the impact of the development on fauna and flora. The assessment deals with the impact on fauna/flora in the site and it also refers to any proposed National Heritage Areas located within a 10 km radius of the site. These are indicated on Figure 9.1 of the EIS. Five such areas are indicated. Four of these are lakes and the other is a marshland. The nearest is indicated as being 7.7 km from the site. These sites are not European Sites as defined in the Planning and Development Act 2000, as amended.
- 10.6 The nearest SAC/SPA or European Site to the proposed development is the Blackwater River which is closest to the site near Kells. This site is over 12 km from the College Proteins site and the College Proteins lands drain to the River Dee. There is no pathway through which the proposed development could have any significant effect on the River Boyne and River Blackwater Special Area of Conservation. The Minister for Arts, Heritage and the Gaeltacht designated the River Boyne and River Blackwater Special Protection Area 004232 on 21<sup>st</sup> November 2012. The designation was aimed in particular at the protection of the Kingfisher. The proposed development would not impact on the Kingfisher or its habitat in the designated SPA.

- 10.7 There is another SAC European Site located partly in Co. Meath but for the greater part in Co. Cavan at a distance of about 15Km from the site. This is located to the south of Mullagh, Co. Cavan and west of Moynalty, Co. Meath. The site in question is Killyconny Bog (Cloughbally), SAC Reference 000006. This site is a raised bog. The development proposed would have no impact on the drainage or any other aspect of this bog.
- 10.8 I consider that the proposed development would not have any impact on either the Boyne Estuary or the River Nanny Estuary and Shore Special Protection Areas, the two closest SPAs in Co. Meath apart from that referred to in 10.6 above..
- 10.9 There are six SACs located in Co. Louth. These are Carlingford Shore, Carlingford Mountain, Dundalk Bay, Clogherhead, the Boyne Coast and Estuary and the River Boyne and Blackwater System. There are also four SPAs in Co. Louth i.e. Carlingford Lough, Dundalk Bay, Stabannon and Braganstown (an area to the north of the River Dee between Ardee and Castlebellingham) and the Boyne Estuary. These sites are all a considerable distance from Nobber and there is no potential pathway through which the proposed development could have a significant impact on any of the sites in question.
- 10.10 The River Dee enters the sea at Annagassan which is located near the southern end of Dundalk Bay which is a designated SAC and SPA. There is

no direct discharge from the proposed development to any water course apart from surface waste discharges. It is noted that the River Dee joins the River Glyde prior to entering Dundalk Bay. It is inconceivable that the proposed development would have a significant impact on Dundalk Bay due to any impact on the River Dee. Dundalk Bay is about 30 km from Nobber.

10.11

I consider that, having regard to the distance to any designated European Site from the site of the proposed development, the nature of the proposed development and the absence of any potential pathways for impact on designated sites, it can be excluded that the proposed development, of itself or in combination with any other project, will have a significant effect on any European Site. An appropriate assessment (as defined in the Planning and Development Act 2000, as amended and as referred to in Article 6.3 of the EU Habitats Directive) is accordingly not required.

Padraic Thornton

Planning and Environmental Consultant

25<sup>th</sup> January 2013