Sub no. (3)

Sonja Smith

From: Licensing Staff
Sent: 08 April 2010 10:52
To: Sonja Smith; Maire Buckley
Subject: FW: New submission entered for Reg no: P0914-01. (Reference Number: P0914-01-100407055501)
Attachments: peat_westland_ippc_licence_sub_05apr10.doc

Importance: High

From: Caroline Lewis [mailto:caroline@friendsoftheirishenvironment.org]
Sent: 07 April 2010 17:55
To: Licensing Staff
Subject: New submission entered for Reg no: P0914-01. (Reference Number: P0914-01-100407055501)
Importance: High

Title:	Ms
First Name:	Caroline
SurName:	Lewis
Organisation Name:	FIE
Address Line 1:	Kilcatherine
Address Line 2:	Eyeries
Address Line 3:	
County:	Cork
Post Code:	
Phone Number:	027 74771
Email:	caroline@friendsoftheirishenvironment.org

Kilcatherine, Eyeries, County Cork
http://www.friendsoftheirishenvironment.org

Submission to the IPPC licence application no P0914-01 made by Westland Horticulture on the 12/03/10.

We submit that

- The application is invalid because it is not accompanied by an EIS
- the Sediment Traps & Buffer Zones are inadequate to prevent water pollution and habitat damage
- there are discrepanciess in the discharge limits.

Environmental impact assessment

This site is adjacent to the River Inny, a once prime salmon angling river, and upstream of Lough Derravaragh, a designated SPA and NHA. Numerous studies have shown that degraded peat has an environmental impact on aquatic systems through the release of :

- Sediments
- Dissolved organic carbon,
- Heavy metals
- Nutrients

Section 32 of the Natural Habitats Regulations (S.I.No.94/1997: http://www.irishstatutebook.ie/1997/en/si/0094.html) states that:

> *'(1)Where an operation or activity or an established activity to which an application for a licence or a revised licence or a review of a licence or revised licence, as appropriate, under any of the enactments set out in Part II of the Second Schedule applies is neither directly connected with nor necessary to the management of a European site but likely to have a significant effect thereon either individually or in a combination with other operations or activities or established activities a local authority, the Board or the Environmental Protection Agency shall ensure that an appropriate*

assessment of the environmental implications for the site in view of the site's conservation objectives is undertaken.

(2) An environmental impact assessment in respect of an operation or activity referred to in paragraph (1) shall be an appropriate assessment for the purposes of paragraph (1).

(3) The local authority, the Board or the Environmental Protection Agency, as the case may be, in carrying out their powers and functions under any of the enactments set out in Part II of the Second Schedule, having regard to the conclusions of the assessment undertaken under paragraph (1), shall grant the licence only after having ascertained that the operation or activity will not adversely affect the integrity of the European site concerned.

The Environmental Protection Agency Act, 1992 is listed in PART II ENACTMENT REFERRED TO IN REGULATION 32

In addition S.I. No. 538/2001 — European Communities (Environmental Impact Assessment) (Amendment) Regulations, 2001 requires an EIA for

"Peat extraction not included in Part 1 of this Schedule which would involve a new or extended area of 30 hectares or more."

Reports are available from the Fisheries Board and the National Parks and Wildlife Service which show that this activity, along with others in the area, is having a negative impact on a designated site.

No such assessment has been carried out in particular assessment of any cumulative impact with other activities (e.g. forestry, peat extraction, agricultural improvement, arterial drainage) at a catchment based level.

Therefore we submit that this application is invalid.

And, without prejudice to our primary submission, we also wish to submit that the Environmental Management Plan contained in part 2 of the application form is inadequate in particular for sediment traps, buffer zones and discharge limits.

Sediment Traps and Buffer Zones.

Silt ponds - otherwise known as sediment traps - are frequently ineffective, particularly on peat soils and frequently act as sediment sources. Degraded peat is relatively

unconsolidated and prone to erosion. The sides of drains and sediment traps frequently collapse.

In the EMP section 12 a) Catchments Areas and Silt Pond design optimisation it states that:

'Peat bogs in milled moss peat production produce approx $50m^3$ of runoff per hectare per annum. The design capacity of all silt ponds should be a minimum of $50m^3$ per hectare.'

This implies that each silt pond has been designed to store a minimum of one years runoff.

We have a number of concerns with the estimated volume of run off from this site.

The run off is the average rainfall less the water evaporated to the atmosphere.

Even allowing for evaporation/evapotranspiration (ET) it is highly unlikely that annual runoff will be as low as 50 $m^3 ha^{-1} yr^{-1}$. at this location

For example

The average rainfall for Mullingar is 999mm.

Cumbria, which has a similar climate, has an average annual potential evapotranspiration rate of 375mm yr^{-1}.

The calculation 999 - 375 = 625mm

Shows that 625mm of the rainfall is potential runoff.

In order to calculate the volume of water running off one hectare, the rainfall is multiplied by the area i.e. 100m by 100m :

$$0.625m \times 100m \times 100m = 6250\ m^3$$

Assuming the catchment is at field capacity this indicates the amount of runoff -whether via subsurface runoff, overland flow or channel precipitation.

The amount of runoff is likely to be in the region of a minimum of 6250 $m^3 ha^{-1} yr^{-1}$, nothing like the 50 $m^3 ha^{-1} yr^{-1}$ proposed in the EMP.

Structures that carry or contain water such as sediment traps, however, are generally designed on the basis of peak discharge of rainfall events as these events present the most serious environmental consequences.

The peak discharge (Q_p) is based on the:

- average rate of rainfall falling on a catchment (I).
- area of the catchment (A)
- runoff coefficient (C) (0.35 – 0.95 for degraded peat)

Sediment traps are also designed using settling velocities of the sediments and their retention time, the surface loading rate and the weir overflow rate.

It is necessary to ask those who have prepared this report to provide the model and calculations that were made to

1. Result in a figure of approximately 50m^3 runoff $h^{-1}yr^{-1}$.
2. ensure that the silt ponds are effective at sediment settlement particularly during period of heavy prolonged rainfall.

It must be noted that the fine sediments and dissolved organic carbons are not removed in sediment traps and it is these that may cause more serious pollution.

Discharge Limits

The Shannon Regional Fisheries Board fisheries Preliminary Report on Peat Siltation in the River Inny states that emissions of suspended solids to water 'must not exceed 30 mg l^{-1} in any instance.'

Section 2.2. of Westland's Discharge license issued by the county council on the 26th November 2009 gives the maximum limit for discharge to surface waters for suspended solids as 25mg/l.

However the Environmental Management Plans gives the following discharge limits 'Total suspended solids – 75% of grab samples for each monitored discharge shall not exceed 35ml/L and no individual grab sample shall exceed 3 times the emission limit (allowing for torrential rainfall and flash flooding)'.

Yet it is these weather events that is the greatest environmental threat and result in significant volumes of polluted runoff, and from which the receiving environment must be protected.

In addition it is impossible to accurately measure pollutants discharged to waters unless continuous monitoring is carried out.

In conclusion we would be grateful if you would inform us as to what consideration will be given to our submission.