

**MM/10/5340L01**  
**29<sup>th</sup> September 2010**

**An Bord Pleanála**  
**64 Marlborough St,**  
**Dublin 1**

To the An Bord Pleanála Inspector,

**RE: ABP Ref: 17.PA0013 - Calculations for Zone of Contribution of College Proteins Water Supply Well**

AWN Consulting carried out a hydrogeological study as part of the Request for Further Information (RFI) for the proposed Biomass Combined Heat and Power (CHP) Facility at College Proteins, Nobber, Co. Meath. We wish to point out an error in the data displayed in one of the Tables presented as part of the following report: 10\_5340Rev.0 (College Proteins Hydrogeological Study – RFI Response). This error was just noticed after submission of the report, whereby an old table was included in the report.

Table 3.3 from Section 3.3, was not updated to show the revised calculations used for the assessment of the Zone of Contribution (ZOC). However, it should be stressed that the correct figures were used in the assessment, and therefore the error was purely typographical.

It should also be noted that the drawings depicting the ZOCs, i.e. Figure 3.2 and Figure 3.3 were correct and based on the revised calculations, showing an accurate ZOC. However the legend for the Drawing 3.2 was not correct and displayed the wrong area (m<sup>2</sup>), i.e. the area presented in Table 3.3.

In addition, the calculation for the Inner Protection Area and the down-gradient distance to the boundary of the ZOC, i.e. to the null point (94.17 m) were also correct.

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The original table and the amended table are both shown below - Table 3.3, from Section 3.3 of the aforementioned report. The volumes for the current and predicted abstractions rates presented have been amended to reflect the actual calculated ZOC areas (m<sup>2</sup>). The changes are highlighted in yellow.

**Table 3.3** Calculation of Zone of Contribution

	Unit	Current Usage	Predicted Maximum Usage
<b>Groundwater Abstraction Rate</b>	m <sup>3</sup> /yr	22,082	23,000
<b>Rainfall</b>			
Total Rainfall	m/yr	0.917	0.917
Evapotranspiration (Effective)	m/yr	0.416	0.416
Effective Rainfall (Total - Evapotsp.)	m/yr	0.501	0.501
<b>Aquifer Recharge</b>			
Recharge Rate *	%	17.0	17.0
Annual Average Recharge	m/yr	0.085	0.085
<b>Zone of Contribution</b>	m <sup>2</sup>	259,270	270,048

\* Taken from STRIVE study, EPA, 2009

**Table 3.3** Calculation of Zone of Contribution - Amended

	Unit	Current Usage	Predicted Maximum Usage
<b>Groundwater Abstraction Rate</b>	m <sup>3</sup> /yr	23,762	28,084
<b>Rainfall</b>			
Total Rainfall	m/yr	0.917	0.917
Evapotranspiration (Effective)	m/yr	0.416	0.416
Effective Rainfall (Total - Evapotsp.)	m/yr	0.501	0.501
<b>Aquifer Recharge</b>			
Recharge Rate *	%	17.0	17.0
Annual Average Recharge	m/yr	0.085	0.085
<b>Zone of Contribution</b>	m <sup>2</sup>	278,995	329,741

\* Taken from STRIVE study, EPA, 2009

The correct predicted maximum ZOC was therefore calculated to be 329,741 m<sup>2</sup>. The amended drawing is also attached, with the amended legend shown on each the drawing.

Yours sincerely,

**MAIREAD MORRISSEY**  
Principal Environmental Consultant