

Christmas Farm / Llay Road / Wrexham / LL12 9UG

To whom it may concern: -

Based on the following information, this application falls squarely within the NRW guidelines for local authorities to screen out applications deemed to reduce current phosphate levels

REINDEER WASTE

As previously mentioned, and included with previous documentation to the local authority, it has been determined, by using animal waste production levels gathered by various universities that 11 (ELEVEN) reindeer produce a similar amount of waste as 1 (ONE) cow. Previously, the land was used for grazing over 100 beef cattle and as this is no longer the case, as they were removed when I purchased the land, the current use being for 20 reindeer means the levels of phosphates produced on the land have decreased by over 90%. Our stock grazes the land and produces rabbit like droppings which are worked into the land either by reindeer traffic or grass care.

EFFLUENT MANAGEMENT PLAN

2 Toilets and wash basins will be provided within the planned building for staff use which will be producing well under 2m3 of waste per day.

Temporary self-contained portable toilets will be hired in for public use. Selected company will be chosen depending upon removal licenses that are available at the time.

Building plumbing will be connected to a standalone sewage treatment plant meeting the British standard EN12566-3 that will output final liquid to ground via a herringbone gravel system (see below). The output levels of phosphates are 1.8mg/l – Certificate attached

Ground levels at site: -

Northwest at junction of Park Road / Llay Road – 81m

Northeast at entrance – 82m

Southeast boundary – 80m

Southwest boundary – 79m

Lake surface level – 75m

Ground levels of local properties: -

Bungalows located on Llay Road to the Northwest of treatment plant site – 84m

Houses located on Park Road to the Southwest of treatment plant site – 79m

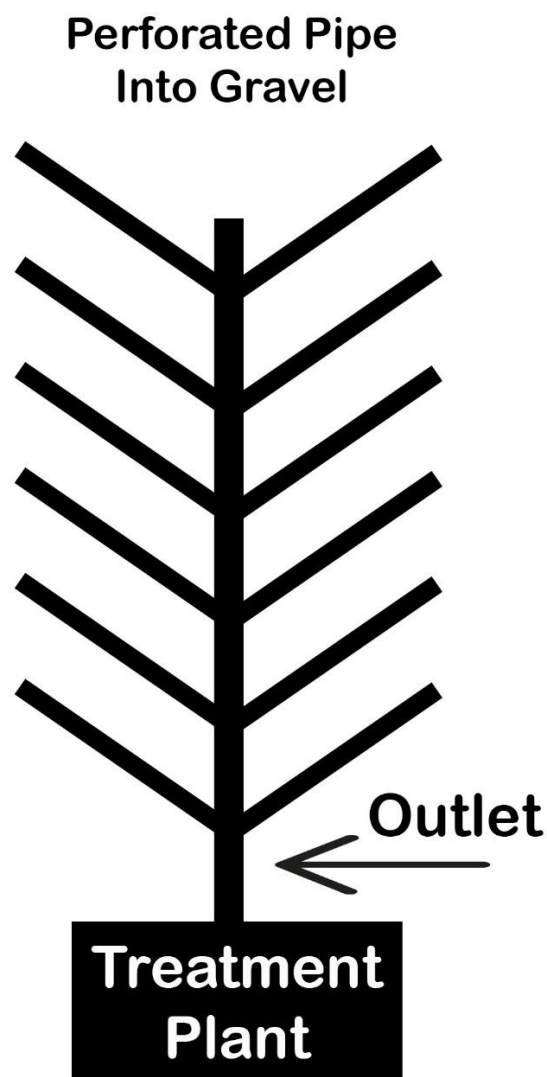
Treatment plant / outlet details: -

The selected location for the treatment plant outlet is 77m so it is therefore determined that there will be no infiltration of any surrounding properties or drainage courses due to the significant negative height level of the outlet. It is also determined that there will be no infiltration of output once it has discharged to ground as the route the underground water takes is to the lake on site which is 4m below the lowest neighbouring properties and roads.

Watercourse encroaching into site: -

There is currently a local authority-maintained ditch running into the site that goes into a holding pool and eventually through the ground into the lake on site. It is therefore given that any additional water supply would naturally take the same route.

Herringbone Gravel soakaway: -



Treatment Plant Certificate



PERFORMANCE RESULTS

WTE Ltd

Unit 2, Bolton Lane, York, YO41 5QX, United Kingdom

EN 12566-3, Annex B

Small wastewater treatment systems for up to 50 PT

Small wastewater treatment system Vortex 5

Activated sludge system in two chambers without primary settlement

Test report PIA2017-301B09

Nominal organic daily load	0.25 kg BOD ₅ /d		
Nominal hydraulic daily load	0.75 m ³ /d		
Material	Polyethylene		
Treatment efficiency (nominal sequences)	Efficiency	Effluent	
	COD	93.8 %	55 mg/l
	BOD ₅	97.3 %	9 mg/l
	NH ₄ -N*	94.6 %	1.8 mg/l
	SS	95.3 %	17 mg/l
Electrical consumption	1.2 kWh/d		

*determined for temperatures $\geq 12^{\circ}\text{C}$ in the bioreactor

Performance tested by

PIA – Prüfinstitut für Abwassertechnik GmbH

(PIA GmbH)

Hergenrather Weg 30

52074 Aachen, Germany

This document replaces neither the declaration
of performance nor the CE marking



Notified Body
No. 1739



Certified according to
ISO 9001:2008



Deutsche
Akkreditierungsstelle
D-PL-17712-01-00



Elmar Lances

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