

WATER REVIEW

Farm: Lower Pentwyn

Date: 11/5/12

Water Use

The overall water usage at the installation is primarily consumed by the livestock and poultry house wash-down process being the only other significant process water user. Other minor processes that use water include domestic office use and toilets. Table 1 below summarises the source of the water utilised and the total amount of water consumed annually.

All water systems in use on the installation are subject to preventative maintenance to minimise leaks.

Table 1: Annual Water consumption at the installation

Source e.g. river, town water	Amount (m ³ /yr)
Bore hole	5459

Water efficiency audit

Due to the quantity of water consumed by the livestock within the installation, combined with the current opportunities that exist for improving the efficiency of water usage, Lower Pentwyn does not consider it appropriate to set water efficiency objectives for the installation, however, Lower Pentwyn commits, as part of an on-going servicing programme, to reviewing the applicability of introducing water efficiency objectives.

Whilst Lower Pentwyn has implemented specific programmes to minimise water consumption, due to the quantity of water consumed by the livestock within the installation and the welfare ramifications if this was significantly reduced, combined with the perceived extremely limited benefits that could be achieved through the implementation of a recycling water, Lower Pentwyn does not consider it appropriate to undertake any further measures at this point.

Breakdown of water consumption

Table 2

Use	Consumption	Monitoring	Amount (m ³ /yr)	% of total	Monitored or estimated value?
Department or activity within the installation	Uses within the specific department of activity	Water quality requirements			
Poultry House	Livestock consumption	Potable		95.0%	Monitored daily meter reading
Washing of Poultry House & concrete aprons	To wash down organic material etc	Potable		4.85%	Monitored by end of production cycle meter reading
Domestic		Potable		0.15%	Estimated by difference
Total				100%	Monitored

[Insert Farm Name] has implemented management methods and controls which optimise water use efficiency, these include:

- The location of water pipes, stop cocks and water meters is shown on the site drainage plan sited in the main office, to increase awareness of staff and visitors.
- Currently, nipple drinkers are being used to minimise water waste and to improve litter quality, subsequently reducing ammonia levels inside the shed.
- Water consumption is monitored and recorded daily from individual water meters within the sheds by the Site Manager.
- [Insert Farm Name] produces a daily water intake chart, which the operator refers to ascertain an unusual increase or decrease.
- Daily checks by farm staff will allow for equipment height to be adjusted to meet the need of the birds, and prevent waste
- Having drinkers at the correct level and adjusting the flow pressure will allow birds to utilise the water correctly thus minimising wasted water and helping litter quality.

These checks will also allow staff to attend to any problems with equipment, such as a leaking drinker line.

The site is insulated; an adequate ventilation system to help regulate temperature and maintain a healthy environment inside the shed during times of extreme weather thus water consumption should not drastically increase during times of hot weather.

Table 2.2.3.6

	Yes	No	
Are all pipes insulated above ground?			Houses insulated
Are stop taps & drain valves installed?			See site drainage plan
Are water tanks covered?			Hygiene & level alarms
Position of water meters identified?			See site drainage plan
All hoses & hand lances fitted with triggers?			During Site wash down

Potential sources of recycled water of suitable quality

Due to the nature and quantity of water consumed within the installation, combined with the water quality requirements (potable water for all uses) Lower Pentwyn does not consider it appropriate or economically viable to recycle water within the process.