



WATER NEUTRALITY

TEMPORARY (THREE YEARS) DWELLING FOR EQUINE WORKERS

AT

**NEWELL STUD
LIMEKILN FARM
BROADWATER LANE
COPSALE
RH13 6QW**

INTRODUCTION

On 14 September 2021, Horsham District Council received a Position Statement from Natural England. Information collected by Natural England shows that water abstraction for drinking water supplies is having a negative impact on the wildlife sites in the Arun Valley. They have advised that any new development that takes place must not add to this negative impact.

The Newell Stud is located at Limekiln Farm, the subject of a successful planning application, HDC Ref. DC/23/1325, for the construction of a stable, sand school and machinery barn. To resolve the water neutrality challenge, the applicant provided an on-site borehole which, because it took raw water from the Tunbridge sand aquifer to the east of the site, did not affect the Arun Valley water supply.

The application for a temporary rural workers' dwelling at Limekiln Farm will use the same water supply already approved under the above reference.

BOREHOLE WATER TREATMENT : PART 1

The applicant originally commissioned a Report from Messrs Nicholls Ltd in February 2023. This addressed the water neutrality restrictions and offered an approach to the design, installation and general management of the borehole raw water so that it could be treated for potable drinking water in compliance with statutory requirements and those of the Environment Agency and Horsham's own Environmental Protection Department.

The Nicholls Report AL100 is attached as Appendix 1.

BOREHOLE WATER TREATMENT : PART 2

Nicholls Ltd also produced a Borehole Prognosis Report with information about the probable nature of a borehole at Limekiln Farm, the geological situation there, and comparisons with other boreholes in the general area.

The Nicholls Prognosis Report is attached as Appendix 2.

BOREHOLE WATER TREATMENT : PART 3

A potential borehole location was identified and a borehole was drilled by Sussex Boreholes Limited.

The Drilling Report is attached as Appendix 3.

BOREHOLE WATER TREATMENT : PART 4

A sample of the raw water was taken by Invicta Limited, and submitted to South East Water Services for a full analysis so that A custom-designed water filtration system could be provided.

The Invicta Report is attached as Appendix 4.

THE FILTRATION PLANT

The chemical analysis of the raw water was submitted to Messrs. Silverline UK Limited, who manufacture filtration equipment. They provided a comprehensive design for a complete system to provide potable water. Silverline confirmed that their system and the resultant drinking water met all statutory regulations

The Silverline UK Proposal is attached as Appendix 5.

DRINKING WATER FOR THE TEMPORARY RURAL WORKERS' DWELLING

It will be noted that the “Drinking Water Safety Plan” Silverline UK document in Appendix 5 indicates a supply of treated water being sent to the dwelling. The proposed system allows for a supply to the dwelling in addition to a supply to the cattle troughs and the stable building.

The Silverline system for the whole of the location is designed for a daily water supply of 1 m³, with a maximum peak flow of 20 litres a minute.

Water usage calculations for Rural Workers' Dwelling:

(Based upon BREEAM 2014 Water Calculator)

Fitting:	Default input:	Totals:
Kitchen taps	3 litres per min	6.32 litres p.p per day
Shower	5 litres per min	21.85 litres p.p per day
Washing m/c	8.17 litres per kilo	17.16 litres p.p per day
Wash basin	3 litres per min	6.32 litres p.p per day
W.C. Dual fl.	4 or 2.5 litres	13.25 litres p.p per day
TOTAL:		64.91 litres p.p per day
X 2 workers = (say)		130 litres per day

The borehole has been estimated to produce a daily supply of 1 m³. The proposed new dwelling will require the equivalent of 0.13 m³, an insignificant additional daily need. An Environment Agency abstraction licence is not required.

MITIGATION

It is a condition of planning approval that a mitigation scheme is in place to treat borehole raw water so as to provide potable water for human and livestock consumption.

The recommendations of Invicta Limited and the equipment to be provided by Silverline UK Limited meet the following regulations:

Schedule 1 Private Water Supplies (England) Regulations 2016

Regulation 31 – Water Supply (Water Quality) Regulations 2016

PRIVATE WATER SUPPLY MANAGEMENT PLAN

It is a condition of planning approval that a management plan is in place, together with a regime for sampling/testing of the potable water.

A Regulation 6 Assessment is to be carried out at least every 5 years, to include maintenance, servicing and cleaning of pump, plantroom, water treatment equipment, tanks, all pipework etc.

Written records of all sampling, water analysis results, inspections, cleaning and maintenance must be made available to the Local Authority. This must continue for the duration of the water system.

The Drinking Water Safety Plan is attached as Appendix 6.

END/14-05-2025