Private Water Supply Management Plan
GREAT VENDORS FARM
MONKS GATE
HORSHAM

October 2025

Regulation 6 Risk Assessment

The key principles of the current regulations are risk assessment and mitigation. This is a whole-system approach for the lifetime of a private water supply. Risk assessment is a proactive approach to identify the risks (potential failures of standards and risks to human health) and to take action to control those risks using a multi-barrier approach. To this end, a Regulation 6 Risk assessment has been completed by Nicholls Boreholes, which is held as a separate document - appendix 5. This full Risk assessment was preceded by a risk matrix which was carried out during the design phase and has informed much of the system design that is now in place. (this is shown within this document).
Specific enhancements have been made to ensure compliance to the risk assessment. The current risk assessment (appendix 5) is a working document which may need to be updated as the system is used and maintained.

This will be revised every 5 years thereafter unless otherwise advised by the appointed Environmental Health Officer ("EHO").
Should any new risks be identified at future assessments, the PMC would be required to put together the necessary mitigation plans within a timely manner. Mitigation plans would need to be approved by EHO and implemented as soon as practically possible.

Responsible Parties

Installer
Nicholls Boreholes ("Installer"), who have installed and commissioned the private water supply.
The Installer will synchronously carry out group A & B UCAS water tap tests (or as otherwise determined by the EHO) on all properties to enable the water supply to be signed off by the EHO prior to occupation ("EHO Sign-off") by the Homeowner(s).

Principle Management Company ("PMC")
Currently not nominated – usually the building contractor initially and later transferred to a property-management company.

Maintainer and Service Provider ("MSP")
Once commissioned, the PMC will contract with Nicholls Servicing and Maintenance division who will take on the role of MSP as documented in this Private Water Supply Management Plan ("PWSMP").

Homeowners
Homeowners will be given a handover pack by the housing developer when their purchase is completed. This will highlight that the water supply is from a private borehole, identify the location of the borehole, plant room, beacon location, and will provide primary and secondary contact details for the PMC and will include an incident reporting mechanism.

The homeowners key contact will be the PMC, (not the MSP).

Water Source

Source Type:	Borehole
Filtration in use:	Iron filtration
	Fine particulate filtration
Number of Properties serviced:	5
Types of Property:	Detached (2x3, 2x4, and 1x2 bedrooms)

Borehole Water Usage Tracking

The water extracted by the borehole will be measured using a water meter and recorded and reported by the PMC.

Mains Water Usage Tracking
The water used for back up from the mains supply will be measured using a water meter. This will be recorded and reported by the PMC along with the bills from the water supplier.

Environmental Health
All private water supplies are regulated by the local Authority Environmental Department. Should the MSP make any be adaptions or changes to the private water supply infrastructure they must ensure that the plant and equipment supplied is of no less quality than that used in the original installation.

Management & Control

Training
The PMC will nominate primary and secondary contacts responsible for regular inspection, regulatory reporting and incident management and reporting, who will work with the MSP and the regulatory bodies to ensure the private water supply remains operative and meets regulatory standards.

The Installer will provide certified training to the primary and secondary contacts as part of the commissioning of the private water supply. Training will include a basic understanding of how the system operates, the faults that may occur, how to determine the fault and what to do in the event of one. Training will also include how to carry out regular inspections, how to read the borehole and main water meters and how to complete the reporting packs.

If the main contacts change, the MSP will provide basic training going forwards.

The plant room has been designed and built considering the safety of the people that will need to enter to monitor, maintain and repair the system. I.e., the space has been constructed in such a way to avoid being classified as a confined space.

Responsibility for maintenance and operation
The PMC is responsible for checking the system at appropriate intervals. In the event of a failure or emergency they will also be the first line of contact for homeowners. They will be the receivers of any telemetry alarms. They will be supported by the MSP who will receive and monitor telemetry alarm during normal working hours and who will provide a callout service as part of the PMP for incident resolution.

Manufacturer's instructions
The following manufacturers instructions and manuals will be required and attached as part of appendix 2. This will not be available until after installation.

1. Tank
2. Booster panel
3. Float valve
4. Filter head
5. Booster pump
6. Water meters
7. Filter MAVs
8. Pressure switch
9. Borehole pump
10. UV manual
11. Chlorine dosing

System checks

The PMC will carry out, record and maintain records of, regular inspections as identified in Appendix 3.

Hardcopy records of the regular inspections will be held in the plant room in the water-safety folder provided by the MSP.

MSP Record Management

The MSP will maintain accurate and complete records of all planned and emergency maintenance services carried out under the maintenance agreement. Such records will be maintained in accordance with recognised commercial practices so they may be readily reviewed. The MSP shall retain all records for a minimum period of five years.

Copies of all service and maintenance reports will be stored with the inspection reports in the water-safety folder in the plant room.

Any system design changes or remedial works that materially impact the mechanism of the private water supply will be reflected in an update to this PWSMP by the MSP.

Maintenance and Repair/Servicing (including testing regime)

Water quality testing regime

Methodology

Both the Installer and the MSP will ensure that for the UKAS ISO Drinking Standard all water quality testing activities will be subject to the following:

- Water samples will be undertaken by a an employee or agent DWI certified for sampling private water supplies
- Both the Installer and the MSP will ensure that all water samples are UKAS water tested by a laboratory that is accredited to the ISO 17025 Drinking Water Testing Specification
- Group A and B tests will be carried out (unless otherwise determined by the EHO)

Both the Installer and the MSP will ensure that for the Non-UKAS water testing:

- Water samples will be taken post the water storage-tank by a competent person
- Where tap testing is specified, samples will be taken during a single site visit at the farthest property from the borehole.

Frequency

In the first year Non-UKAS testing will continue from the EHO Sign-off at the end of month six. (The Installer will carry out testing necessary for EHO Sign-off and the MSP will be responsible thereafter).

At the anniversary of the first year and at yearly intervals thereafter UKAS ISO Drinking Standard testing will be undertaken by the MSP.

Water quality issues

If contamination is suspected (change in taste or odour) The Homeowner must contact the PMC immediately. The PMC will enter the plant room and carry out a check of the system. If deemed necessary the PMC will switch the water to a mains supply and instigate the flushing procedure as documented below.

Should the results of a UKAS test reveal that water samples do not meet the UK Drinking Standard the MSP will raise a High Priority Incident and immediately inform the PMC who will switch the water to a mains supply and instigate the flushing procedure as documented below.

Switchover to Mains Supply

The PMC will enter the plant room and will turn the borehole supply off. This will automatically run the mains back up until further testing can be carried out and the source of the contamination found and rectified.

Flushing Procedure

Main system flush requires the tank to be drained allowing fresh mains water to fill. This can be done by utilising the irrigation pipe line or by turning taps on in the houses. Once the tank is drained and the mains water is filling the tank each household connected to the borehole system must:

- Open all taps within the house and leave running for 10 minutes
- If any odour or taste remains outside of the normal repeat above process again until taste and odour disappears.
- Close taps and continue with normal use.
- If taste or odour remains, the PMC will need to contact the MSP to investigate and the system moved to the emergency water supply.

The PMC will be solely responsible supply of potable water. The MSP will be responsible for supporting the PMC in identifying and the corrective action required to remedy appropriately and will carry out those corrective actions where applicable.

Water quality testing regime									
	Month								
	1	2	3	6	10	11	12	24	36
Test									
UKAS ISO drinking standard	Tap						Tap	Tap	Tap
Non-UKAS				Post Tank					

Maintenance intervals

Planned preventative maintenance will be performed by the MSP in accordance with the Preventative Maintenance Plan ("PMP") in operation between the MSP and the PMC.

Within the planned annual maintenance

- UV bulbs and quartz sleeves will be replaced
- Top up of chemicals and salts
- Filtration media will be replaced
- A post-tank UKAS ISO Drinking Standard test will be completed
- Insulation and motor windings tests will be carried out on borehole pump
- Removal and cleaning/replacement of clack head (filter head) seals to each filter vessel
- Inspection and adjustment of all controls
- Tank inspection and full drain down and clean
- Replacement of consumable media
- Replace or clean the sediment filter cartridge
- General check of all systems and operation
- Inspection and test run of the on-site back-up generator

Water Sources

Source protection
There is complete control of the land around the source as it is located within the development site.

The well head is completely sealed by means of a raised GRP well-head cover. This is the responsibility of the PMC to maintain and protect.

In terms of continuity of supply during dry periods extending beyond 35 days: this is most relevant for rainwater harvesting and less applicable for borehole water supplies. The yield capacity for the borehole is much greater than what is required in this instance. In addition, mains water backup is available should the borehole water fail. In the extremely unlikely event that the aquifer fails to yield as required, a new Borehole Prognosis report would be conducted with a view to a new borehole with a revised specification.

Water Storage

Tank
5000L Potable overground storage tank

Tank turnover
The tank volume is calculated to turn over at an average of once every 48 hours

Tank inspections
Will be carried out as part of regular inspections performed by the MSP. Inspections will highlight any need for a tank clean by way of visually seeing any build up of debris inside.

Water Distribution

Pipework
All external pipework is MDPE, and is 32mm pre-filtration and 40mm post-filtration. All internal pipework is part of the detailed design.

Water Treatment

Treatment in place
Pre water-storage tank, the raw borehole water will be treated for its higher than the *UK drinking standards* levels of iron using aeration and suitable iron filtration media. In this case, the media use is high manganese dioxide media. Post water storage, the water will be filtered for sediment and then dosed with chlorine before lastly treated with UV light to eliminate a broad spectrum of pathogens (please see the detailed design: Appendix 7 and laboratory results Appendix 6 and Appendix 8).

System design
Raw borehole water is pumped from the borehole via a submersible pump through a contact tank. Iron filtration follows the removal of iron. The processed water is then stored in an overground tank until required. As required, the water is pumped to the properties by a booster set through a central high flow particulate filter, chlorine is added and finally treated by UV.

System security
The plantroom is brick walled, felt roofed with a lockable access door. The well head has a lockable raised GRP cover.

System Monitoring
The telemetry system will report up to seven incidents via GSM to a SIM device owned and operated by

the PMC. The SIM will report telemetry faults to two phone numbers help by the MSP and a minimum of one phone number held by the primary and/or secondary contacts at the PMC.
All faults identified by the telemetry system will require a plant room inspection by the PMC in accordance with Appendix 1.

Chlorine Dosing , Supply availability and Calibration
As part of the maintenance schedule there will always be a brand new chlorine container within the plant room , that will hold more than one year supply, this will ensure that the PMC can always do the regular required chlorine top up monthly.

The calibration schedule is as follows and will be carried out as part of the yearly maintenance checks carried out by Nicholls.

Calibration Schedule:

Components requiring calibration	Supplier	Regularity	Method
Chlorine dosing probe	Seko	Yearly calibration	One point calibration • Take a chlorine reading with a reference instrument. • Change the value shown on the display until it reaches the value read by the reference instrument and press Enter. • Wait 10 seconds for the calibration to be completed. • At the end of the operation, a calibration completion message will be displayed.

Emergency Plan

Emergency plans for failure of supply or insufficiency.

The system will have a mains water back up system installed which automatically operates in the event of insufficiency or borehole malfunction. The water supplied from the mains will be supplied via cat 5 WRAS-approved turret. To comply with current regulations, the turret is necessary because mains borehole water cannot be allowed to contaminate mains water.

The water levels inside the water-storage tank are monitored by a float switch, as water is used and the water level drops below a threshold, the switch initiates the borehole pump to top up the tank. The threshold level can be adjusted to ensure that sufficient water is available at all times and that the water turnover is high enough.

If the mains-water back system operates, the telemetry system will report a fault code.

Ultraviolet (UV) Failure
The system comprises one Ultraviolet filter installed in the plant room. Should the filter fail this will be reported via the telemetry system. On receipt of a telemetry fault code indicating a filter failure, the PMC will instigate the switchover to mains supply and flushing procedure documented above.

Telemetry system
The equipment in the plant room will be linked to a telemetry system. If the telemetry system reports a fault the PMC primary or secondary contact will carry out an inspection in accordance with *Appendix 1*.

The inspection report must be clearly annotated that the inspection was carried out as a result of a telemetry fault code and it must record the fault code reported.

The possible failures displayed on the alarm panel are:

1. Borehole pump
2. Mains backup pump
3. Iron filtration
4. Booster set
5. Water meter
6. UV
7. Chlorine

Power cut

In the event of a power cut all water supply equipment will not function, including the mains backup. A backup system in the form of a generator will be permanently present on site and will be maintained by the MSP. Once power has been re-established, either with the generator, or power has been restored, the checklist in appendix 1 would be completed by an individual approved to do so via the PMC.

Repairs

In the event that a repair is required and is carried out to any part of the system , including surrounding building or tanks. The appointed contractor would be contacted and would carry out a full system check and follow the maintenance procedures and a flush of the system if required.

Emergency Call-out

The PMP will include the supply of an engineer call-out service which will respond to the reported incident in accordance with the priority level determined by the Risk Matrix.

Manufacturer's Instructions

Manufacturer's manuals are contained within this file

Additional information

Drill log Sheet
Test pump record
Raw borehole water analysis
Regulation 6 Risk assessment

Customer Complaints

Should homeowners not be satisfied with the quality of the water, they should raise concerns to their PMC, who will either carry out additional checks of the sytems or make an engineer call out. If the concerns are significant a designated and trained individual may switch the water to the mian back up and then carry out he necessary procedures and call and engineer.

If there are more general concerns with the level of maintenance or the plant room, homeowners should contact the PMC.

Appendices

Appendix 1

Telemetry Fault and/or Incident - Plant Room Inspection checklist

Please tick or note value in each box to record that each action has been carried out/recorded and sign off to confirm the check has been completed.

Name of site: ……..

Date of incident: ……/……/……..

Date of inspection: ……/……/……..

Telemetry Fault Code / GSM Message

OR Description of incident :

Check	**Item**	**Record**
Metre Readings	• Mains:	
	• Borehole 1 inlet:	
	Filtration outlet:	
Check	• **Item**	**Tick**
General	• Check all control panels for error messages Check for leaks, strange noises, vibrations and rodent ingress	
	• Check chlorine level in tank (replace as needed)	
	• Check chlorine reading at tap adjust dose if required	
	• Check gauge and visible condition for the sediment filter (replace as needed)	
	• Check telemetry panel for any alarms	
	• Check flow rates if running.	
	• Check water tank clarity and for dirt accumulation	
	• Check externally for any signs of damage or leaks	
	• Check borehole well head. Is it locked? • Is there damage, infestation, leaks etc inside the GRP enclosure	
	•	
	•	

Checklist completed by:

Name: …… Signature: ……

Call Nicholls Servicing & Maintenance on 01403 820750 option 4 and email an image of this report to: servicing@nichollsboreholes.co.uk

Appendix 2

Manuals and manufacturer's information are available and are held in a file that is stored within the plant room. Soft Copies of these are available from Nicholls borehole.

Appendix 3a

Weekly Plant Room Checklist and Action Plan

Please tick or note value in each box to record that each action has been carried out/recorded and sign off to confirm the check has been completed.

Name of site: ……..

Date of inspection: ……/……/……..

Checklist completed by:

Name: …… Signature: ……

Check	Item	Record
Meter Readings	• Mains:	
	• Borehole inlet:	
	• Filtration outlet:	
Check	**Item**	**Tick**
General	• Check all control panels for error messages	
	• Visual and touch test for leaks	
	• Rodent ingress	
	• Visual check for condensation	
	• Visual check for flooding/damp	
	• Visual check of water tank for leaks	
	• Open tank lid to check for debris build up	
Notes		

Call Nicholls Servicing & Maintenance on 01403 820750 option 4 if any fault code shown on control panels.

Appendix 4 Private Water Supplies Information Pack
GREAT VENDORS FARM MONKS GATE HORSHAM

Water Supply Plan Responsibilities

PMC

1. Primary Contact ……
    a. Contact Number ……
    b. Email Address ……
2. Secondary Contact ……
    a. Contact Number ……
    b. Email Address ……

Horsham District Council Environmental Health Service.

1. Address ……
2. Environmental Health Officer ……
    c. Contact Number ……
    d. Email Address ……

MSP

1. Primary Contact ……
    a. Contact Number ……
    b. Email Address ……
2. Secondary Contact ……
    a. Contact Number ……
    b. Email Address ……

		Components Affected Causing Hazzards							
		Borehole pump	Iron filtration	pressure vessels	Mains backup	Booster set	Alarm system	UV Filters	Potential Outcome
Component Failure	Borehole pump		No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	Reduced/no water supply
	Iron filter	No Hazzard		No Hazzard	No Hazzard	Component failure	Activated	Component failure	Non-potible water
	pressure vessels	Component failure	No Hazzard		No Hazzard	No Hazzard	No immediate alarm	No Hazzard	Leaking, flooding, overabstraction
	Mains backup	No Hazzard	No Hazzard	No Hazzard		No Hazzard	No Hazzard	No Hazzard	No water should borehole supply at any point
	Float valve fail - fail to refill	No Hazzard	No Hazzard	No Hazzard	No Hazzard	Component failure	Activated	No Hazzard	No water supply until mains backup is activated
	Float valve fail - overfill	Component failure	Component failure	No Hazzard	No Hazzard	No Hazzard	Activated	No Hazzard	Leaking, flooding, overabstraction
	Booster set	No Hazzard	No Hazzard	No Hazzard	No Hazzard		Activated	No Hazzard	No water supply
	Alarm system	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Alarm	No Hazzard	All of the above
	UV Filter	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	Non-potible water
	Plant room fan	No Hazzard	Condensation damage to control circuitry	No Hazzard	Condensation damage to control circuitry	Condensation damage to control circuitry	Condensation damage to control circuitry	No Hazzard	All of the above
	Plant room heater	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	No Hazzard	Leaking, flooding, overabstraction