Proposed water filtration system for proposed cabins at Badgers Hollow, Thakeham

The filtration system from Off Grid Water comes in 3 stages.

Stage one and Two use LED UV sterilisation and together provide safe drinking water from rainwater collection. As with all UV sterilisation processes there is no significant water loss.

Stage 3 is a reverse osmosis system which is designed to make drinking water 'healthier' than tap water, as explained below. This is an optional step. The reply from the owner of Off grid water states that this system rejects 60% of water from final drinking water but this rejected water is then sent for use for other sources such as washing so the loss overall is negligible. This will only be included within the system at Badgers Hollow if the water loss is minimal and does not interfere with the volumes required for the cabins in conjunction with the volumes collected.

I hope this clarifies any doubt regarding the proposed system.

Our options if we are lucky enough to get a higher than 75% occupancy alongside lack of rainfall is to increase our capacity to hold rainwater to make the system more efficient, provide drinking water to guests or in the worst case scenario to buy water in for guests.

Below are the details from the off grid water website:

Stage One :

The Offgrid StageOne is built for tough environments, offering a 7-stage filtration process with LED UV sterilisation. It's designed to filter dirty source water, whether canals, rivers, lakes or rain water. Durable and weather-resistant, this unit is ideal for all sorts of off grid applications, effectively removing contaminants, sediments, and microorganisms.

The filtered water is then suitable for washing and domestic purposes. Depending on the quality of the source water, we can configure your system to produce water that is safe to drink (by including ultrafiltration for instance).

Specification

- Source water purified: Canal / River / Rain / Lakes
- Power: 200 watts with either 12v or 230v adapters
- Dimensions: W64cm x D31 x H40
- Weight: 14kg (dry) / 19kg (wet)
- Weatherproofing: Rain and cold but protect from frost
- Flow rate: 10-12 litres per minute (depending on filter setup and height)
- Filters: 6 x 10" x 2.5" standard filters (type varies depending on use)
- LED UV: Compact unit which never needs its bulb changing (Optional)
- Filter change frequency: Variable but around one every 1500-2000 litres
- Running costs: £70-£90 per year for dirty canal water (full time canal boat living)
- Equipment: Primary strainer, high pressure couplings, hose clips, set of filters and instructions
- Assembled in England
- Warranty: 2 Years

Note that we cannot guarantee output quality of water as there are many variables out of our control such as differing contaminants in source water and maintenance of the system. High soluble iron content for instance may need a specific iron filter. What we do know is that for rainwater and river water as well as many other water sources, this system gets them to drinking water standards.

Stage Two:

Please note, this is an add-on product and should be used with our StageOne unit. It should be plumbed in either under your sink or after your accumulator.

The Offgrid StageTwo is built for filtering water that has already been purified by the Offgrid StageOne unit, mains water or stagnant tank water that you don’t trust. It combines de-ionisation, ultra filtration and carbon filtration to remove any contaminants or microorganisms that may still be present in your water to get it to drinking water standards. Water softening can also be added to protect appliances from limescale or make for a better shower experience!

Specification

- Source water purified: Water purified by StageOne or similar / stagnant tank water or mains
- Power use: 0 watts
- Dimensions: W35cm x D15 x H35
- Weight: 4kg (dry) / 7kg (wet)
- Weatherproofing: Indoor or outdoor use (protect from direct sunlight)
- Flow rate: Up to 16 litres per minute
- Filters: 3 x 10" x 2.5" standard filters (type varies depending on use)
- Filter change frequency: 4-8 months
- Running costs: £30-40 per year
- Warranty: 2 Years

Stage 3 (Optional)

The FinalStage Reverse Osmosis unit provides the highest quality drinking water in a compact package. It can be used in combination with the Offgrid StageOne or to increase filter life, after a StageTwo unit. A pre filter of some kind is required. It can also be used in standard domestic settings with mains water.

The FinalStage RO unit not only removes chlorine, fluoride, nitrates, hard metals, viruses, cysts and bacteria (as well as hundreds of other contaminants), but then remineralises the water using an alkaline filter so it is healthy and great to drink.

The FinalStage RO comes with its own drinking water tap too - the diameter for this is 23mm so you'll need a hole saw accordingly (or ask and we can send one with your order).

Specification

- Source water purified: Water purified by Offgrid StageOne + StageTwo/ stagnant tank water or mains.
- Power use: 230v 3 pin plug 75 watts (1.4w on standby)
- 12v option: Yes
- Dimensions: W14cm x D45 x H40

- Weight: 10kg
- Weatherproofing: Indoor use only
- Flow rate: 1.6 litres per minute
- Filters: 2 x cartridge filters
- Filter change frequency: 12-24 months
- Running costs: £70-90 per year
- Warranty: 2 Years