



Case Study: Water treatment

Scope

To provide basic water treatment for a shallow well in rural Dorset

- to attain drinking water quality
- to maintain drinking water quality

The existing system was contaminated with coliform organisms that were not being killed by the UV light system at the point of use.

The existing situation

The supply arrangements featured a shallow well; water from which was pumped to a series of water storage tanks. These tanks served an extensive network of water troughs for the farm cattle. The water service pipe work also fed the farm buildings, house and cottages. The water was receiving UV light dosing upon entry to the farm complex of buildings.

Investigation of the water use on the farm showed that very high volumes of water were being stored, amounting to several days of water storage within the tanks. The quality of the water in the borehole was already poor, with a high bacterial population. The quality of the water degenerated during further storage. The UV light plant was found to be undersized for the peak demand at the farm complex.

The Environmental Health Department had taken several "failed" water samples and required action to resolve the problem.



Silver-washed Fritillary Valezina

The scheme

- Reduction of water storage on site
- Increased rating of UV light system
- Chlorination of well, service pipe work and storage tanks

Project outcomes

- Drinking water quality restored leading to reduced contact with local Environmental Health Officer
- Better turnover of stored water reducing cleaning frequency of tanks
- Good understanding of "new" system improving operation and management of system.

...clear thinking