

## 6.12 Maintenance and training requirements

One of the most neglected aspects of small water supply systems is maintenance. The usual practice is to deal with equipment failures as they arise, with the risk that contaminated water will be supplied until the problem is fixed. Proper maintenance involves a regular, preventive, maintenance programme. This enables early identification of problems. Equipment manufacturer's maintenance instructions must be followed as a minimum requirement. Simple checks can be used to give forewarning of problems:

- daily (or more frequent) check on operation of disinfection equipment (e.g. check that UV lamp is on, measure chlorine residual);
- investigate causes of dirty or discoloured water;
- regular cleaning of filters, sedimentation tanks and so on;
- site inspection to check for signs of pollution of the water source; and
- structural inspection of the treatment plant, storage tanks and pipework.

Maintenance should always be performed by people familiar with the equipment. Some suppliers of treatment equipment may offer maintenance and servicing contracts. At the time a water treatment plant is installed and commissioned, the supplier should provide training on routine operation and maintenance tasks. The training should cover:

- checking that treatment is operating correctly;
- topping-up chemicals as required;
- routine maintenance of the equipment; and
- making simple repairs.

This on-site training should be supported by appropriate documentation, such as an operation and maintenance manual.