

The use of ROVs can supplement existing water sampling methods. Currently quality can only be monitored at an access point or down line.

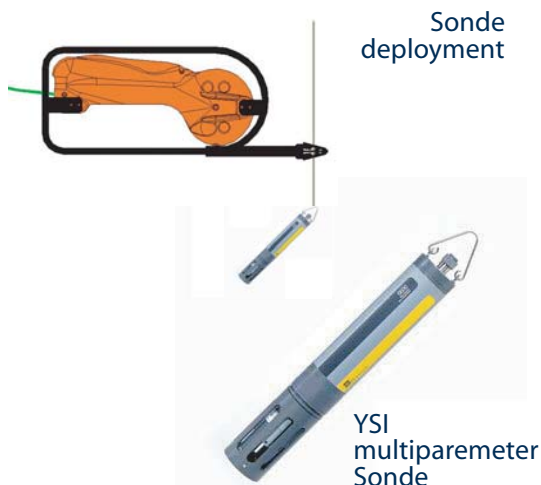
In large reservoirs the occurrence of 'dead spots' where the chlorine level is too low - can be specifically investigated using an ROV.

The data collected provides water quality departments with definitive information on cyclic trends, and water quality within an asset.

Information obtained can also be used to confirm the results of 3D modelling exercises.

The ROV is utilised in two ways

- Deployment tool to position test equipment in traditionally inaccessible areas of the asset.
- As a platform to mount sampling equipment that can take samples anywhere within the asset.



Deployment of test equipment

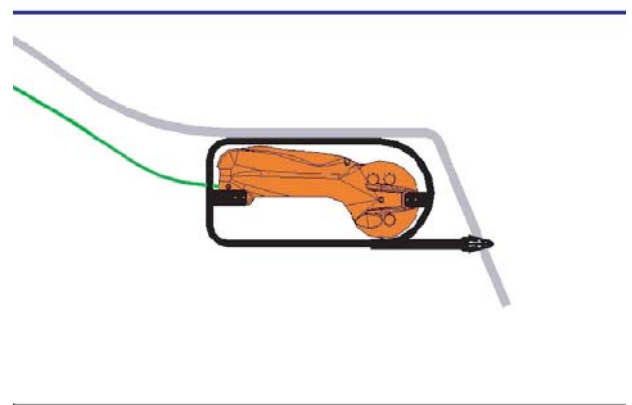
Multi parameter sondes can be deployed at any pre-defined position specified by the client. Data is then recorded at user-defined intervals for periods of up to 3 months. The sondes can be fitted with up to 15 sensors to measure various levels such as chlorine, dissolved oxygen and turbidity. This information is then downloaded when the sonde is retrieved. This data will identify daily, weekly and monthly trends within the asset.

- No disruption to supply.
- Full log through varying flow conditions.
- Information to assist with SR operation or design of enhancement works.

Direct sampling

Another option is to use the ROV, fitted with a sampling hose connected to a surface mounted peristaltic pump, to extract water samples from selected areas of the SR. This method provides 'point in time' data that would identify any serious problem areas.

- Low cost sampling.
- Water Utility carry out testing.
- Immediate results.



Direct water sampling

Budget Price Guide: (ex. VAT)

£5000 - Assuming 4 No. Sondes and 4 weeks monitoring

£500 - For direct water sampling - on single day as part of general work package

Principal Benefits:

- Definitive water quality data - from inaccessible areas
- Provides upto 12 weeks data - sound basis for decisions
- Avoids expensive civils works - where perceived problem does not exist