



WATER QUALITY

RESERVOIR
MAINTENANCE
SPECIALISTS

issue **15**

SERVICE RESERVOIR INSPECTIONS

Drinking water must satisfy the market force principles of satisfaction and trust. Water quality within service reservoirs is now being given more consideration within inspection outcomes.



NSW Office of Water (NOW) have issued a new protocol (Circular 18), which acknowledges the three barriers required for drinking water to be suitable for safe consumption.

1. Effective disinfection to kill, inactivate or remove pathogens in the water supply.
2. Ensure distribution integrity to prevent contamination.
3. Maintain free chlorine residual in the water distribution system to protect

against minor contamination and to indicate potential breaches in distribution system integrity.

This is a major step forward in recognising the importance of reservoirs within the distribution network. The initiatives commenced in NSW deserve to be expanded into the other States, so that all consumers can have confidence in the drinking water they have been told they can trust.

INSPECTION METHODS

Service reservoir inspections based on the NOW requirements place emphasis on entry hatches, platform areas, roof structures and ventilation systems to ensure effective barriers are in place to prevent contaminants entering into our water supplies (Barrier 2).



Most defective areas are obvious, but some of the worst contamination entry points are also the hardest to identify. This is where experience comes into play, based on identifying the evidence such as bird activity around the roof area, staining and debris residue on platforms from ponded water, hatches that leak when the BoW (bucket of water test) is applied, and feathers or nesting material on the internal water line areas.



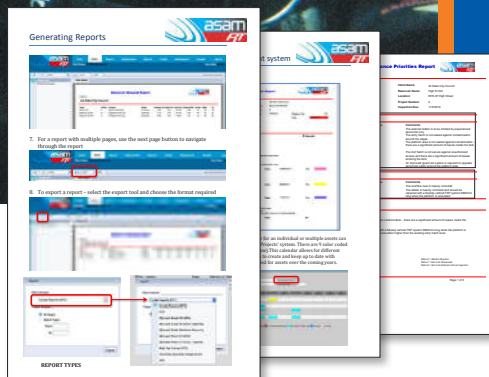
The presence of heavily corroded internal ladder systems and overflow pipework, along with excessive sediment loadings are also important to identify, as they will be impacting disinfection residuals within the storage (Barrier 3).

INSPECTION METHODS



The most important aspect of an inspection program is how the client receives and takes 'ownership' of the results. Field data needs to be consistent and accurate – images and written data should complement each other and 'tell a story' to whoever views the findings later on. The only way to achieve this effectively, is for the main inspector to input the data and rename the images at the end of each day.

There is also a choice between 'one off' written reports or 'a live data base' which can be searched, updated and accessed via PC, tablet or smart phone at any time, any place. ASAM R/T is a data management system that ensures fast and simple access to inspection results and photos. Projects can be created and managed, specialised reports can be generated, a search engine finds information quickly and clients can update their data online.



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