



# Pool Note 2

## Swimming Pools inundated by Flood Waters

This Note provides information about repairing an aquatic water body used for recreation in commercial, educational or community environment after the pool has been inundated with flood or waste water. Private swimming pool owners facing such a situation should consult a trained swimming pool and spa technical operator to undertake these works. This information applies to spas and swimming pools.

### Why is flooding of a swimming pool a problem?

Flood waters can be contaminated with sewage, other waste, mud and/or brackish water etc, so remedial work will be required to get a flooded public, commercial, tourist, educational or local government pool up to an acceptable standard for use. This will include cleaning out and flushing or treatment with flocculants and chemicals to remove solids and contaminants.

### Pool to be closed for maintenance

It is recommended that the Operator close the pool for maintenance for the time taken to clean and sanitise the pool, for samples of pool water to be taken by an environmental health officer or trained Technical Operator (as applicable) and satisfactory results to be received from a NATA accredited waters laboratory, before the pool can be re-opened for public use.

In the event that the Operator does not close the facility, the local government may deem it to be a health risk and order it closed until satisfactory water samples are obtained. In Western Australia, an environmental health officer may issue a closure order which must be endorsed by the Executive Director Public Health within 48 hours (at all times). A scanned copy of the order may be sent to [swimmingpools@health.wa.gov.au](mailto:swimmingpools@health.wa.gov.au) for endorsement.

### If the Pool can be emptied:

The Operator will need to make an assessment as to whether it is safe to empty the pool with advice from a building consultant especially in areas with a high water table. Emptying a pool situated in an area with a high water table or in water –logged soils may put the pool walls under stress resulting in cracking or collapsing of the pool walls or forcing the pool up out of the ground.

It will also be important that potentially contaminated pool water can be disposed of to a location where it will not cause overflows in an already overloaded drainage system, or contaminate other water bodies.

If it is safe to be empty the pool, then all water and residues should be removed together with flushing of plumbing pipes to filters and replacement of filters or filter media.





Once emptied, the pool floor can be cleaned and sanitised using a 10ppm chlorine solution. Walls can be cleaned with a 10% bicarbonate solution. Bicarbonate is also used to raise the pH.

Once completely cleaned the pool can be refilled using scheme water (Provided this has not also been compromised by the flood) and disinfectant added to bring it up to the operating parameters found [here](#).

When the pool has been operating at these levels continuously for 24 hours, the local government environmental health officer should undertake start up sampling of the pool and the backwash of each filter and forward the samples with accompanying form to a NATA accredited waters laboratory. Further information about pool sampling is available [here](#).

### **Where a pool cannot be emptied**

Where the pool cannot be emptied, a trained Technical Operator will need to inspect the pool to determine an appropriate treatment to remove solids from the water by a chemical technique e.g. flocculation. Depending on the amount and type of inundation, the water may need to be treated over several days to allow all undissolved solids to descend to the floor of the pool ready for vacuuming. Only when all the sand and sludge has been removed from the pool, can effective chlorination commence. The pool and filters should be superchlorinated to 20mg/l (ppm) for up to 13 hours.

Depending on the nature and amount of contamination and the volume of the pool, the chemical treatment process and chlorination of the pool may take up to a week to complete.

Once the pool water is visibly clean, the pool motor and filter(s) may then be used to operate at the required chemical levels (e.g. chlorine, pH, bromine, cyanuric acid level, etc). Operators should determine the time required for a complete filtration cycle. It should be noted that 4 complete cycles of the pool water are required to achieve 98% filtration of pool water.

Once the pool is maintaining the chemical levels listed in the Code of Practice for the Design, Construction, Operation, Management & Maintenance of Aquatic Facilities (May 2010), the local government environmental health officer be contacted to undertake start-up sampling of the pool (or spa) and backwash of each filter, and forward the samples with accompanying form to the Pathwest Laboratory in Nedlands.

### **Sampling of swimming Pool Waters**

Operators in Western Australia should allow 3 – 4 days (metropolitan area) and up to 7 days (rural & remote areas) for water samples to be collected and the results returned to the Operator. Where an initial sample fails to meet the standard in Section 5 of the Code of Practice, an additional sample must be taken and time allowed for the results to be forwarded to the Operator.

Further information is available here or by email to: [swimmingpools@health.wa.gov.au](mailto:swimmingpools@health.wa.gov.au) or by phone call to the Environmental Health Directorate at (08) 9388 4999.

