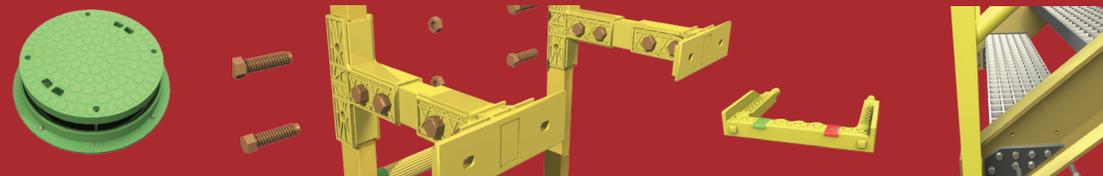
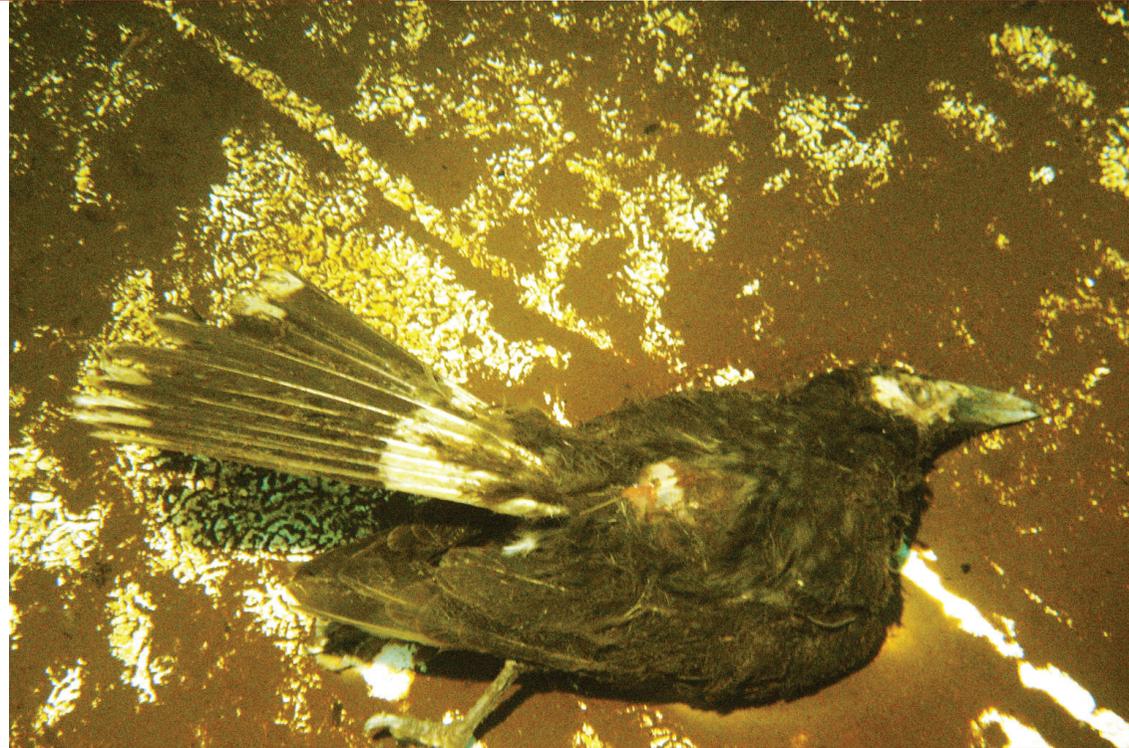


Disinfection System Management

Gunnedah Shire had included a new disinfection regime into their distribution system to optimise their water quality and to comply with NSW Dept of Health guidelines. Practical training and operational manuals were required to assist management and field staff in running the new system. Aqualift arranged for a scientific officer and a disinfection systems technician to spend a week in Gunnedah to review the existing hardware and processes that were installed in four separate areas of the Shire. Council staff were trained onsite with their own equipment and instrumentation, rather than having to attend more generalised classes 'away from home'. Operations manuals were developed to continue this practical, 'hands on' approach with the new technologies. Continuing training and auditing will maintain this knowledge for future generations of operators and management.



Covered Storage Tanks.



Most storage tanks have been roofed to maintain water quality, and at first glance this is a marked improvement upon the previous uncovered storages. However, roof areas can hide a multitude of contamination problems that are not obvious at first.



Faulty drainage points are the largest contributors to 'unseen' contamination – often the whole roof area keeps on draining back into the tank, along with the surface contaminants that have accumulated upon it.



Roof structures can also provide a safe haven for small birds and vermin, who would otherwise be preyed upon by larger natural predators, if they remained in an open environment. Any gutter system that drains internally needs to be fully checked for integrity and ventilation areas need to be checked for vermin or bird entry potentials. Only then can a covered storage tank be considered 'an improvement' upon the original open design.

Disinfection-too much reliance?

Good quality drinking water is produced at most of our treatment facilities today, but it is often degraded in the distribution system.

This is due to several key factors - introduced contamination and additional disinfection demand areas within the storage tanks.

Storage tanks need to be assessed for contamination entry points and any internal materials that can degrade and affect water quality. Corroded metal ladders and pipework are common and these are large consumers of disinfection chemicals.

Disinfection has generally been the 'fix all' scenario for any water quality issues that arise within a distribution system and spot dosing is used to 'top up' the disinfection levels when problems occur.

It is better to remove any contributing factors before problems can occur. Disinfection can then return to its function as a 'back up' system to good quality supply, instead of being the sole provider of protection to the consumer.

