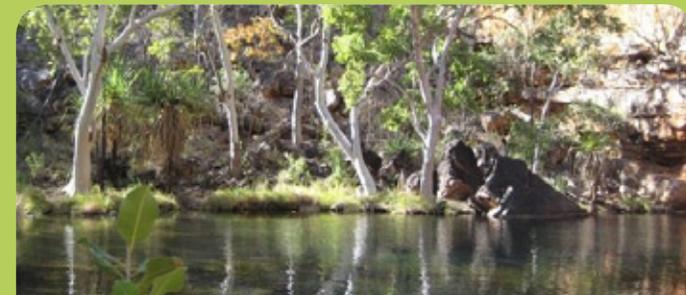


Protection measures action list

- 1 Place sites away from sensitive water resources using buffer zones, i.e. site shouldn't be prone to flooding, in public drinking water source areas or impact on conservation wetlands or waterways.
- 2 Minimise vegetation clearing and land disturbance when establishing the site.
- 3 Implement site drainage plan which includes pollutant capture traps.
- 4 Plan and construct employee amenities including toilets and personal hygiene facilities.
- 5 Locate material laydown areas on hard surfaces such as concrete to reduce disturbance of topsoils and minimise dust and erosion.
- 6 Contain potential polluting materials in weatherproof buildings or tanks and use bunding for secondary containment of chemicals.
- 7 Inspect all material deliveries to depots for damage during transport. Any damaged materials (e.g. punctured chemical storage drums) should not be unloaded.
- 8 Store incompatible materials separately to reduce the fire hazard, prevent chemical reactions or other dangerous incidents.
- 9 Operate designated systems for waste recycling and disposal e.g. skips and sullage tanks. Ad-hoc burial pits should not be used.
- 10 Employ good site security to deter intruder access including fencing and patrols.
- 11 Improve employee awareness and incident response procedures and resources including training in hazardous material handling and use of material safety data sheets.



Harding Dam: an important drinking water source for towns in the Pilbara



➤ Sensitive water resources

Clean water resources are used for drinking water, sustaining aquatic and land ecology, industry and aesthetic values and are fundamental for community needs.

For more information on sensitive water resources see the Department of Water's brochure *Sensitive water resources* on our website www.water.wa.gov.au.

➤ Further reading

- Chemical blending
- Containment spills - emergency response
- Light industry near sensitive water resources
- Liners for containing pollutants, using engineered soils
- Liners for containing pollutants, using synthetic membranes
- Mechanical equipment washdown
- Mechanical servicing and workshops
- Roads near sensitive water resources
- Stormwater management at industrial sites
- Tanks for elevated chemical storage
- Tanks for temporary elevated fuel and chemical storage
- Temporary skid mounted fuel transfer and storage in PDWSA
- Toxic and hazardous substances - storage and use
- Vegetated buffers to sensitive water resources.

Available at <http://drinkingwater.water.wa.gov.au>
(and select *Water quality protection notes*).

➤ Construction depots

Construction depots that store materials for the construction of buildings and other infrastructure are a potential contamination risk when located near sensitive water resources. Incorporating protective measures into the management of these sites can reduce these risks.



➤ Hazards to water resources

Construction depots can cause hazards to sensitive water resources.

Potential hazards include:

- land disturbance and vegetation loss leading to increased turbidity
- human activity increasing the chance of pathogen outbreaks from human waste or direct contact
- changes in water table levels leading to salinity or acid sulfate soil problems
- the loss of stored material (through leaks and spills) causing pollution such as oils from transformers, soils, fuel, metals, packaging litter, pesticides, fertilisers, solvents, preservatives and paints.

The chance of these hazards occurring is increased by poor management practices of operators, employees and contractors. Poor practices include inappropriate site selection and preparation, inadequate waste disposal measures and poor employee training.

Storm or fire damage and sabotage by intruders also increases the risk of environmental damage occurring.

➤ Other information sources

- Department of Water - *Stormwater management manual for Western Australia*
<http://stormwater.water.wa.gov.au>
- Department of Environment, Water, Heritage and the Arts - *Wastewise Construction Program Waste reduction guidelines for construction and demolition industry* www.environment.gov.au
- *National Water Quality Management Strategy* www.environment.gov.au/water/quality/nwqms
- Swan River Trust - *Environmental management and cleaner production directory for small and medium businesses* www.swanrivertrust.wa.gov.au
- Zero Waste WA website www.zerowastewa.com.au



Department of Water
Government of Western Australia

Looking after all our water needs

Department of Water

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➤ Feedback

We welcome your thoughts and suggestions on these publications. We aim to regularly update them and make them as useful as possible, which in turn will improve the level of protection we can provide for Western Australia's precious water resources.

Please email us at drinkingwater@water.wa.gov.au or contact us via the above information.



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Construction depots near sensitive water resources

Water quality awareness brochure no. 14 June 2008

