



Stormwater Management

for Service Stations and sites with Underground Storage Tanks

EPA 506/04—April 2004

Why do service stations need this information?

This information for owners and staff of service stations and underground storage tanks aims to help you identify and manage potential stormwater pollution problems at your sites.

The *Environment Protection (Water Quality) Policy 2003* requires you to ensure that stormwater is protected from pollutants such as general rubbish, petroleum products, heavy metals, industrial waste, oils and greases.

What is stormwater?

Stormwater is rainwater that flows over outside surfaces into stormwater drains and gutters in the street. This water is not treated and flows directly to our creeks, rivers, groundwaters and oceans. Stormwater should only contain clean rainwater and *no* pollutants.

Benefits for you and your business

By addressing potential stormwater pollution problems at your workplace you:

- minimise your potential for environmental fines and prosecutions
- demonstrate compliance with the Environment Protection Authority's codes of practice
- improve your business profile
- make long-term cost savings by increasing efficiency and reducing costs
- increase customer patronage
- improve environmental conditions for everyone.

What legislation governs stormwater pollution?

The stormwater system is protected by a number of different laws including the *Environment Protection Act 1993* (the Act), the *Environment Protection (Water Quality) Policy 2003* (the Water Quality Policy), the *Local Government Act 1934*, the *Development Act 1993* and the *Public and Environmental Health Act 1987*.

The Water Quality Policy offers the most specific protection for the state's waters. It prohibits the pollution of the stormwater system and our natural waters. The Water Quality Policy has general obligations with which every person, business and industry must comply, as well as specific obligations for particular activities. Failure to comply with any of these obligations may result in a \$300 fine, Environment Protection Order, and/or prosecution.

Clause 17 of the Water Quality Policy states that *a person must not discharge or deposit a pollutant listed in Schedule 4 of the Policy into any waters or onto land where it might enter any waters*. The pollutants listed in Schedule 4 that relate to service stations and underground storage tanks include:

- cleaning agents
- detergents and their by-products
- engine coolant
- fuel dispensing area washwater
- hard waste (for example, vehicles, tyres, batteries, metal parts, piping)
- motor vehicle servicing or repair waste
- oil, grease, lubricants, petroleum products, rubbish, and solvents.

For more information on the Water Quality Policy visit the EPA web site at www.epa.sa.gov.au or telephone (08) 8204 2004.

In addition, the EPA recommends that owners and operators of service stations and underground storage tanks:

- comply with the South Australian EPA's *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry*, which is now mandatory
- follow any conditions of planning approval made by the local council
- refer to current guidelines and codes of practice from the *Australian Institute of Petroleum*
- refer to the Victorian EPA's *Guidelines on the Design, Installation and Management Requirements for Underground Petroleum Storage Systems 2003*
- comply with any requirements as stipulated by the SA State Government agency Workplace Services—telephone 1300 365 255.

Identifying potential pollution problems

Service stations pose a significant potential pollution risk to the stormwater system due to the nature of the products used and activities occurring at the location. The varied activities of a service station, including a mechanical workshop, carwash, and refuelling pump, use petroleum products, oils, grease, solvents and detergents on a daily basis. These pollutants can be easily transported by clean water and discharged into stormwater drains.

Think about the areas where clean water has the potential to mix with pollutants. Is the contaminated water draining directly into the stormwater system or into an approved treatment system? Can you change your work practices to ensure that contaminated water is directed into the stormwater treatment system, and that the system is adequately maintained and operated at its maximum efficiency?

Any discharges to the sewer must be in accordance with the requirements of the SA Water Trade Wastes Section—telephone (08) 8207 1350, fax (08) 8207 1361.

What can you do to prevent stormwater pollution?

- All stormwater runoff from the uncovered driveways and hard paved areas on the site must be diverted into a stormwater treatment system or device capable of removing litter, sediment and oil products.
- The stormwater treatment system should include a high flow by-pass system to maintain the quality of the discharged water during periods of high rainfall or first winter rains.
- Water that has been treated could be discharged to a grassed swale, vegetated site or garden strip within the property boundary, once you ensure the quality of the discharge is suitable. It should be noted that water in the treatment system might contain dissolved hydrocarbons which, if at high concentrations, could result in contamination and should not be used in this way.
- Confine the washing and cleaning of vehicles and parts to an approved wash bay or contained or bunded (raised edge) area, from where the wastewater is directed to the sewer with a trade waste permit. Discuss alternatives with the Trade Wastes Section of SA Water, who will provide technical advice and options for appropriately collecting, storing and disposing of your liquid wastes.
- Do not hose the service station forecourt unless all cleaning water is collected and directed through an approved trade waste system. Sweep or vacuum the area or use absorbent materials and solvent on a rag to remove concentrated areas of grime or spillages. Painting the floor with a non-slip paint (as used in aeroplane hangars) to prevent it from absorbing oil will make the floor easier to clean.
- The petrol refuelling area/covered forecourt must:
 - include or contain within its perimeter the underground fuel storage tank filling points and tanker delivery standing area
 - be designed so that no vehicle can be refuelled outside of the designated drainage area
 - be protected from the entry of run-off from the uncovered forecourt area at the roof canopy line by a combination of ground surface grade change and a grated drain system, draining to a blind sump which:
 - could contain occasional minor fuel spills from the covered forecourt area (Note: a fuel spill contingency plan is required to minimise the potential explosive hazard: see below.)
 - would contain all cleaning wastes, washdown water and vehicle fluid spillage for treatment before pumped discharge to the sewer or to a septic tank effluent drainage scheme (STEDS) (Note: the requirements and approval of either the Manager, Industrial Wastes, SA Water or the local council must be sought before discharging to a sewer or STEDS).
- The EPA recommends that all storage systems no longer in use should be removed from the ground as soon as reasonably practicable. An appropriately experienced environmental consultant should be engaged to assess any environmental impacts and to recommend remedial action to verify the suitability of the site for the intended use.

Spill management

Any property that contains hazardous and/or potentially polluting material must have an emergency spill response plan to deal with any danger or potential danger that results from the leakage or spillage of those materials. The preparation and ongoing maintenance of an emergency spill response plan is necessary to show compliance with the general environmental duty. Premises with activities licensed under the Environment Protection Act may be required by a condition of licence to prepare and publish a plan of action to deal with emergencies.

In the event of a spill:

- quickly and safely stop the spill source and isolate it
- contain the spilt material away from the stormwater system and waterways
- clean up the spill with reference to the material safety data sheet.

Copies of material safety data sheets should be readily available for all materials on site.

An environmental management system will identify accidental risks and help prevent accidents.

Water use

Water is one of our most valuable natural resources. Water supply organisations in South Australia have begun to introduce a 'user pays' system to promote water conservation and to better reflect the true cost of water collection, storage and supply services.

Service stations can save money and have a positive impact on the environment by implementing a water efficiency program. This program starts with a water audit to determine how much water your business uses, where there are water leaks, and what systems and equipment could be put in place to reduce your water use. For further information, please contact SA Water on (08) 8207 1350.

For information on the current level of water restrictions visit the SA Water web site at www.sawater.com.au, or telephone 1800 130 952.

The information contained in this document is from a series of fact sheets developed by the Stormwater Pollution Prevention Projects.

Visit www.catchments.net/initiatives/initiatives_stormwater.shtml for more information on stormwater issues.

FURTHER INFORMATION

Legislation

Legislation may be viewed on the Internet at: www.parliament.sa.gov.au/dbsearch/legsearch.htm

Copies of legislation are available for purchase from:

Government Information Centre
Lands Titles Office, 101 Grenfell Street
Adelaide SA 5000

Telephone: 13 23 24
Internet: shop.service.sa.gov.au

For general information please contact:

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