



Water quality protection note 10

May 2020

Contaminant spills – emergency response plan

Preparation and use of a comprehensive emergency response plan (ERP) can help lessen environmental risks and impacts, minimise the cost and frequency of site down-time, aid clean-up, reduce occupational health and safety impacts and enhance community attitudes. Implementing an ERP helps prevent accidental spills, leaks and emergencies that could contaminate groundwater, soil, waterways or wetlands.

This note recommends that a comprehensive and effective ERP should be prepared, maintained and implemented by those responsible for storage, transport, handling or use of chemicals, wastes or other substances that could contaminate water resources or the environment.

Standard information to be read in conjunction with this note can be found in Water quality protection note (WQPN) 3: [Using water quality protection notes](#).

Scope

This note offers:

- guidance on the preparation and use of a comprehensive emergency response plan
- views on contaminant management and spill response
- contact details for emergency response processes for contaminant spills.

This note applies to the management of any chemical spill or contaminated water discharge that may pose a risk to human health or the environment, disrupt any community amenity (environmental or economic values), or impact any sensitive water resources (as defined in WQPN 4: [Sensitive water resources](#)).

Contaminants of particular concern are acids and alkalis, detergents, metal salts, nutrients, petroleum derivatives, solvents, pathogens, pesticides and carcinogens, including:

- all materials listed in Schedule 1 of the Environmental Protection (Unauthorised Discharges) Regulations 2004
- all substances listed in the current schedules of the [Medicines and Poisons Act 2014](#)
- all substances listed as Dangerous Goods pursuant to the Australian Dangerous Goods Code
- contaminants described in the water quality guidelines published as part of the National water quality management strategy

- any substance that, if released at a concentration above environmental background levels, could present a risk of harm to human health, impact drinking water, disrupt ecological processes, affect any environmental value or impact on the aesthetic appeal of waters.

Water quality contamination risks

Spills and contamination can result from various incidents such as equipment malfunctions, operating accidents, employee negligence, fires, inadequate prevention processes, moving harmful materials, natural events (such as storms, floods or earthquakes), civil disturbances, vandalism or unauthorised access.

Spills and leaks can also occur during normal operations, such as discharges to hardstand areas with connectivity to the environment as well as unsealed ground and stormwater drains (off-site disposal and on-site disposal i.e. soak wells).

All spills and leaks can result in contamination of water resources or the environment. The risk that a contaminant can pose varies based on the following factors:

- the volume of the spill
- the nature of the contaminant and its toxicity to living things
- the timeliness and effectiveness of spill management measures
- location of the spill and contaminant travel path
- extent of contaminant dilution and dispersion prior to its impact on water or environmental values
- physical characteristics of the contaminant (density, solubility in water, viscosity, potential for adsorption to soil particles and influence of rainfall or irrigation)
- persistence of the contaminant in the environment, (half-life, potential for evaporation, soil-filtering capability and biodegradability in contact with soil microbes)
- potential for reaction with substances present in the environment, and the subsequent by-products.

For general information about protecting water quality, see WQPN 8: [Further reading](#).

Recommendations

Location

The following recommendations describe information for the protection of sensitive water resources (see [WQPN 4: Sensitive water resources](#)). The development of an ERP is particularly important near sensitive water resources.

Within public drinking water source areas (PDWSAs)

The Department of Water and Environmental Regulation (the department) protects and manages PDWSAs in Western Australia (WA) to make sure the public has access to safe, good quality drinking water now and into the future. The department constitutes PDWSAs under the [Metropolitan Water Supply, Sewerage and Drainage Act 1909](#) or the [Country Areas Water Supply Act 1947](#) and prepares a drinking water source protection report for

each PDWSA. Each PDWSA is assigned with three different priority areas, priority 1 (P1), priority 2 (P2) and priority 3 (P3) for managing land uses and activities. Protection strategies differ for each priority area.

For more information on PDWSAs, see Strategic policy: [Protecting public drinking water sources in WA](#) and WQPN 25: [Land use compatibility tables for public drinking water source areas](#).

1. An ERP should be developed for all land uses or activities within a PDWSA that involve any of the hazardous substances listed in the 'scope' section.

Waterways

2. Within proclaimed waterways management areas, any land use that may affect water quality or its amenity requires written approval from this department.
3. Adequate buffers between waterways and their foreshore areas need to be maintained. Refer to Operational policy 4.3: [Identifying and establishing waterways foreshore areas](#).
4. For activities near waterways with recognised conservation or social values, advice should also be sought from the department's local regional office (see www.dwer.wa.gov.au, select Contact us).

Near the Swan-Canning estuary

The Swan-Canning River Protection Strategy supports the objectives of the [Swan and Canning Rivers Management Act 2006](#). The Act aims to protect and enhance the ecological health, community benefit and amenity of the Swan-Canning estuary through a coordinated program of monitoring river health, reducing contaminant inputs and enhancing waterway protection.

5. The cumulative effects of human activity and waste disposal puts pressure on the quality of waterways. An effective response following contaminant spills reduces these pressures.

For more detailed information, see www.dbca.wa.gov.au/swan-canning-riverpark or contact the Department of Biodiversity, Conservation and Attractions (DBCA).

Near to or upstream from wetlands

To find out the locations of wetlands, and any separation distances or special measures that may be required view the wetlands mapping layers on the Landgate platform, *Locate* available, www0.landgate.wa.gov.au/maps-and-imagery/interactive-maps/locate. Further information can be obtained by contacting DBCA, please see contact details in appendix A or at www.dbca.wa.gov.au.

Key considerations for your ERP

6. A comprehensive ERP should be prepared, maintained and then used by those responsible for handling, managing or using any substances that pose a contamination risk.

7. The ERP should follow the prevention, preparedness, response and recovery (PPRR) model which is a comprehensive approach to risk management under emergency management arrangements.
8. ERPs should ensure that the user is able to quickly and effectively respond in the event of a contaminant spill or other serious emergency. The effectiveness of an ERP depends on the documentation of spill scenarios, the response process, availability of adequate resources and training of those responsible for its implementation.
9. For the ERP to be as useful as possible, it should be easy to read and logically formatted, and provide detailed advice and a checklist.
10. Please refer to WQPN 14: [Statutory approvals](#) for a list of approvals that you may need before starting your development or activity, and the responsible agency. These responsibilities should be included in the ERP.
11. Operators should demonstrate that under a range of conditions, on-site materials and processes do not pose a significant risk to the local environment. Please refer WQPN 18: [Information the Department of Water and Environmental Regulation requires to assess a proposed development or activity](#).
12. The ERP should establish any necessary links between site emergency response protocols and the state's emergency management authorities including the Department of Fire and Emergency Services (DFES), Western Australian Police, State Emergency Management Committee (SEMC), advisory committees such as the state flood warning consultative committee, the State Hazard Plan - HAZMAT coordinating committee and the Maritime Environmental Emergency Response (MEER) unit. DFES can provide information on the appropriate contact details, available www.dfes.wa.gov.au.

Dangerous good sites

13. At dangerous goods sites, the ERP should meet all requirements of the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007. The following Department of Mines, Industry Regulation and Safety's (DMIRS) Dangerous Goods Safety information sheets (available www.dmirs.wa.gov.au) apply:
 - *Emergency planning for licensed dangerous goods sites*
 - *Overview of storage and handling regulations*
 - *Emergency plans for small businesses – guidance* (for dangerous good sites with less than five occupants).
14. Australian Standard AS 3745 *Planning for emergencies in facilities* provides guidance on how to prepare a suitable ERP to mitigate dangerous goods accidents.
15. All dangerous goods sites (except petrol stations and mine sites) that store or handle more than ten times the manifest quantity of dangerous goods (see Schedule 1 of the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007) require the development and ongoing review of a DFES Fire and emergency services emergency response guide (FES-ERG).

A FES-ERG is designed to provide essential information to DFES for use in an emergency. It is also used as an inspection tool by local DFES fire stations for risk

management purposes. For information on developing a FES-ERG see, [When is a DFES emergency response guide \(FES-ERG\) required?](#), available www.dmp.wa.gov.au.

The operator of a site requiring a FES-ERG must ensure that a completed and current guide is maintained on the DFES FES Emergency Guides and Plans website. A printed copy of the FES-ERG should also be held on-site. For more information on FES-ERGs email feserg@dmirs.wa.gov.au.

Content of ERPs

16. Develop a comprehensive ERP to ensure preparedness for any contaminant spill. The ERP should include the following sections:

Purpose of the plan

State the objectives, application and extent of the plan.

Contaminant inventory

Detail the current types and quantities of chemicals and potential contaminants stored or handled on-site. A Safety Data Sheet for each chemical should be available.

Site layout diagram

This diagram should show:

- the locations of chemical and potential contaminant storage and points of use
- emergency and spill kit equipment (including for fire control)
- site drainage and places where drains can be blocked in an emergency
- any on-site water sources
- workforce access ways, multiple escape paths and muster points.

Description of potential emergencies

- Provide an assessment of risk scenarios that could lead to spills and the probable impacts. Assess the circumstances where incidents could occur and the likely health and environmental impacts, both on and off site.
- Define any actions that may aggravate or limit harmful impacts. For example, some contaminants may give off toxic fumes, impeding clean-up efforts.
- Define contaminant flow paths to human and environmental receptors.
- Provide an action plan for each scenario. These action plans should include both on and off-site mitigation measures, such as working with government agencies to block off street drains.
- Further information can be found below in the section *Emergency response classification system*.

Risk assessments

These should be prepared by defining:

- likely incident causes
- the probable frequency of spill occurrence (e.g. number spills per year)

- the probable scale of an incident (e.g. a 200-litre drum spill)
- impact thresholds i.e. the concentration of chemicals that may cause harm, see *National water quality management strategy papers 4 and 6* (in references)
- factors such as success of protective barriers, remediation, dilution, soil filtration and stormwater impact that should be considered and conservatively applied.

Employee safety

Employee safety should be a key concern. Adequately trained, designated and equipped staff should be available to respond immediately to contaminant spills. All other people should evacuate the area to a safe muster zone in response to an alarm, or as directed by the agency that has taken charge of the emergency response (such as DFES).

Allocate responsibility

An emergency response manager should be designated with the responsibility to implement the ERP. The roles of key support staff could be defined using a flow chart. Ensure that staff are available and effectively trained to carry out their assigned functions. There should be a 24-hour roster so that there are trained staff available for emergency response at any time.

Communications

A continuously effective communications system is essential. Individual action cards or programmed personal digital assistants should be accessible for staff with roles and responsibilities under the ERP.

Backup resources

Trained staff and equipment should be continuously available to deal with emergencies. Such equipment may include:

- personal protective clothing
- respirators
- chemical monitoring equipment
- absorbent litter
- fire-fighting equipment
- safety shower and eye wash
- drainage isolation valves or a means to block drains
- floating fuel barriers
- earth-moving machinery
- waste containment skips.

Where necessary, have stand-by contracts for emergency response services available, including 24-hour contact details.

Regularly test emergency procedures

The ERP should include an outline and timelines for periodic testing to ensure staff are well prepared and that response procedures work in an adequate and timely manner.

Make changes to the ERP if tests demonstrate that procedures can be improved. Testing should include all aspects of the ERP such as:

- walkthroughs and orientation workshops
- tabletop tests such as desktop incident simulation
- functional tests such as communication system tests and team training
- full-scale tests such as mock spill responses and practice evacuations.

Notify the authorities

Define the procedures for contacting emergency services and regulatory agencies in the event of significant emergencies. List who will contact the emergency services and under what conditions, and list relevant all-hours phone numbers. Please see appendix A: *Emergency contact details*. Examples of those to be contacted include:

- Department of Fire and Emergency Services (DFES)
- Department of Water and Environmental Regulation's pollution response team (1300 784 782)
- Department of Mines, Industry Regulation and Safety (DMIRS)
- local government
- drinking water service provider (such as the Water Corporation).

Notify the neighbours

Maintain a contact list of neighbours and the circumstances under which they need to be notified e.g. an evacuation. A cooperative approach can assist in an emergency response situation.

Site evacuation

In situations where an employee or visitor's health or wellbeing may be at risk, a procedure should be prepared describing who, when, where and how people will be evacuated and accounted for and how the evacuation protocol applies. Periodic evacuation drills are recommended.

Incident investigation

Staff should report actual incidents and near misses to the designated emergency response manager. An incident review should urgently follow to assess and correct any procedural defects discovered during the emergency (see section *Emergency response review*). A record of incidents should be maintained on a business data system.

Media interest

Effective media communication (press, radio, television and internet) can be a key element both in implementing the ERP for major incidents and dealing with community interest during and after the incident. Adequate attention should be given to this issue prior to an incident occurring.

Prevention, preparedness, response and recovery (PPRR) model

The ERP should follow the prevention, preparedness, response and recovery (PPRR) model.

Prevention

Operators should aim to eliminate (or reduce the probability of) the unplanned release of contaminants and minimise the degree of damage that could occur to the environment. If a risk of contaminant spill exists, the following prevention measures should be arranged:

17. Use alternatives to toxic and hazardous chemicals where possible. This could include non-chemical options or chemicals that have a lower toxicity, limited mobility in the environment or low persistence in their toxic form. All West Australians are encouraged to do their part in making better environmental choices.
18. Store chemicals on sealed, hardstand flooring using purpose-built racks or pallets within secure, covered and weatherproof buildings.
19. If storing and using dangerous goods, you must comply with the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007, available at www.legislation.wa.gov.au. For example, all chemical containers must be labelled with the contents and supplier's safe-use instructions.
20. It is an offence under the Environmental Protection (Unauthorised Discharges) Regulations 2004 to cause or allow certain materials to enter the environment in connection with a commercial or business activity. All requirements under this regulation must be implemented by operators, available at www.legislation.wa.gov.au. Please also see the department's fact sheet, *Environmental Protection (Unauthorised Discharges) Regulations 2004*, available at www.dwer.wa.gov.au.
21. Ensure the site and operation meets any local planning requirements and by-laws by contacting your relevant local government. For example, these laws may pertain to storage requirements for environmentally harmful materials.
22. Develop a drainage plan as part of the ERP. The drainage plan should include a drain identification (ID) for all drainage and drainage isolation points. The following should be labelled in a visible, clear manner on-site:
 - drain ID on each drain
 - all drains on-site where water can discharge to the environment including soak wells and stormwater drains.

This will increase awareness of contamination risks. You may have to employ a contractor to help determine this information or it may be available in your existing stormwater drainage plans.
23. Place spill-risk facilities away from sensitive areas such as stormwater drains. Include a buffer sufficient to allow for effective intervention prior to a spill causing water contamination.
24. Prepare to use drain blockers and drainage isolation devices (such as butterfly valves, sluice gates and sand bags) for on-site drainage and bunded areas to halt the passage of spilt fluids and prevent the discharge of contaminants off-site. The ability to contain water on-site to enable recovery is crucial to reducing environmental impact and the cost of remediation.
25. Ensure the use and maintenance of secondary spill-control facilities such as bunded containment compounds.

26. Use preliminary water treatment where possible. For example, if storing hydrocarbons, please ensure you have an oil-water separator installed in the bund prior to discharge points, to ensure that there are no contaminants in the water.
27. Avoid risk-related activities at times when weather conditions may magnify any harm caused by a spill. For example, avoid unloading trucks outdoors during rainfall.

Preparedness

An effective ERP means continuous preparedness for accidents and emergencies. A quick response to an accidental contaminant discharge can greatly minimise the impact and exposure of the discharge to the environment, with the following preparations in place:

28. Use secondary containment facilities, such as bunding.
29. Have site incident response manuals, including the provision and maintenance of relevant chemical supplier's Safety Data Sheets, in locations accessible to incident management personnel.
30. Install a loudspeaker warning system or warning siren.
31. Install and maintain clear and visible signs for warnings, muster points and emergency contacts.
32. Ensure that there is continuous access to suitable equipment (such as spill kits) and drain blockers to mitigate the effects of chemical spills and adequately protect workers and emergency response personnel.
33. Ensure spill kits, drain blockers and other emergency clean-up equipment is located close to where discharges might occur, and that staff know how to use it.
34. Spill kits should include equipment appropriate for the type and use of chemicals on site. This may include non-spark (grain) shovel, broom, disposable gloves, safety goggles, chemical resistant coveralls, disposable masks, waste bags or containers, suitable biodegradable degreaser, absorbent material, over-packing containers or drums and neutralisation agents.
35. Regularly audit pollution-control equipment and components. Replace, update and maintain them as required so that they are operating efficiently.
36. Regularly review and audit areas, equipment and processes that may result in spills.
37. Check chemical containers against their expiry date and keep over-packing containers for product transfer or in case of damaged containers.
38. Ensure site drainage plans are available for protecting site drainage systems, including understanding where they discharge.
39. Ensure the ERP includes procedures for recovery and disposal of contaminated fluids if there is a significant spill or fire.
40. Keep emergency contact information up to date, including after-hours, and clean-up contractors' details.
41. Regularly train relevant employees and contractors in incident response protocols, including holding drills to ensure safe procedures and use of good environmental

practice. Use signs and checklists to reinforce training and good practice. All staff inductions should include learning about the ERP.

Response

The scale and type of response to a contaminant spill depends on the nature and volume of substances discharged, likely contaminant pathway, and the potential risk for impacts to people, the environment (including water resources) and property.

42. The response to a spill will vary depending on the emergency response classification system detailed below. However, when detailing your varying responses in your ERP, it is important to consider including the steps of control, containment, contact and clean.

Emergency response classification system

43. Emergency response can be managed using a three-tier impact classification system (described below) based on a risk assessment of the potential severity of impact on people or the environment. The following impact classification (high, moderate and low) is aimed at indicating the severity of the incident, so that appropriate resources are deployed in response to the emergency.

High impact incident

To be considered a 'high' impact incident, one or more of the following must apply:

- a significant and immediate threat to human health or property (such as fire, the production of toxic fumes, hazardous liquids, solids, dusts emissions or persistent toxic matter that cannot be contained)
- incident is within a PDWSA
- significant or immediate harm could occur to endangered native plants or animals
- observable harm has occurred (such as fish deaths)
- incident is within a water catchment with a recorded conservation value
- incident has the potential to persistently contaminate soil or water resources.

Moderate impact incident

To be considered a 'medium' impact incident, one or more of the following must apply:

- moderate threat to human health, amenity or property
- incident is outside PDWSAs, but close to private water supply sources
- chronic or long-term harm could occur to native plants or animals
- long-term (not immediate) observable impact may occur to the environment.

Low impact incident

- low or no significant threat to human health, amenity or property
- contaminant is fully contained and cannot enter soil, drains or waterways, or is in a position which does not pose a threat to the environment
- incident is outside any recognised sensitive environment (areas with defined water resource values)
- poses no immediate or long-term threat to environmental receptors.

Recovery

44. Ensuring site safety is the most important concern. After this, the priority is to contain and recover as much of the spilt contaminant as possible, prior to escape into the environment.
45. Any solids remaining from the clean-up should be disposed of appropriately in sealed containers for disposal off-site. Ensure that any spill residue drains to a sealed collection sump, not into the environment.
46. All contaminated soil in environments where local water values are threatened should be removed to a containment area for analysis and effective treatment or disposed of at a secure, authorised landfill.
47. All site remediation or rehabilitation for contaminant spills should be effectively undertaken and a site audit should determine that no residual site contamination remains.
48. This department's pollution response team or another emergency response agency such as DFES may attend the site during the clean-up to assess environmental risk and investigate potential impacts.
49. Once the contaminant spill and environmental hazards are appropriately removed, a follow-up audit of the site clean-up may be required. Personnel from this department's pollution response team or an appropriate regional office may undertake this follow-up visit.

Review

50. If a significant contamination incident has occurred, the owner/operator of the facility or equipment that caused the incident should install appropriate safeguards and improve protective measures to reduce the risk of the incident occurring again.
51. The ERP should be periodically reviewed when chemicals or processes change (or at least every five years) or following any significant incident or near miss to ensure it remains up-to-date and effective.
52. Aim to avoid or minimise the impact of future incidents. Typical questions that should be asked during the review are:
 - a What can be learned from what has happened?
 - b How can the scenario that led to the incident be prevented?
 - c Are there any necessary changes to be made to improve the ERP?
 - d How do we assess what is and is not working?
 - e What are the implications not only for on-site operations, but also on the whole business or industry?
 - f Is the training for response personnel adequate and up to date?
 - g What validation exercises do we need to undertake?
 - h Are further ERP and response program revisions needed?

Reporting and support when combating spill incidents

53. Any material dumping, contaminant spill or contaminated water that escapes containment that could harm the environment must be reported (please use the contacts provided in Appendix A). Please report these incidents to the Pollution Watch Hotline, phone 1300 784 782 or via email: pollutionwatch@dwer.wa.gov.au.
54. If the incident is within a PDWSA, which can pose a risk to drinking water quality and public health, immediately report it to the local water service provider. This is often the Water Corporation (phone 13 13 75 and they will determine if they are the appropriate contact).
55. Discharges of waste likely to cause pollution or environmental harm must be reported to the Pollution Watch Hotline on 1300 784 782 as soon as practical (as per requirements under section 72 of the *Environmental Protection Act 1986*). Written notifications (following verbal notification) can be lodged by completing a [Waste Discharge Notification Form](#) and emailing it, along with photographs and a map showing the discharge point to pollutionwatch@dwer.wa.gov.au. Refer to the department's fact sheet: [Notification of waste discharges](#) for further information on reporting requirements and responsibilities for notifications under the *Environmental Protection Act 1986*.
56. Liable persons must report waste (such as from contaminant spill clean-ups) and recycling data annually to this department (as required by the Waste Avoidance and Resource Recovery Regulations 2008, amended in 2019). More information is available at www.dwer.wa.gov.au.

Contaminated sites

'Contaminated' is defined in the *Contaminated Sites Act 2003* as being 'in relation to land, water or a site, means having a substance present in or on that land, water or site at above background concentrations that presents, or has the potential to present, a risk of harm to human health, the environment or any environmental value.'

57. Under section 11 of the *Contaminated Sites Act 2003*, site owners, occupiers or a person who knows or suspects that they have caused or contributed to contamination must report the site to this department. If you suspect a site to be contaminated it must be reported as soon as reasonably practical. However, if you know a site is contaminated it must be reported within 21 days of you first becoming aware of the contamination. Failure to do so is considered an offence under the Act.
58. This department administers and enforces the *Contaminated Sites Act 2003*, which includes classifying sites (in consultation with the Department of Health) and making information on contaminated sites available to the public. Investigating and cleaning up contaminated sites is, in most cases, the responsibility of the polluter or current site owner.
59. This department can allocate one of seven classifications to sites: contaminated – remediation not required; contaminated – restricted use; remediated for restricted use; possibly contaminated – investigation required; decontaminated; not contaminated – unrestricted use; report not substantiated. Classification decisions made by the department are subject to appeal. Appeals are investigated and determined by the

Contaminated Sites Committee. Further information on appeals can be found at www.csc.wa.gov.au.

60. If you are dealing with a possible contaminated site, please refer to the contaminated sites guidelines (available www.dwer.wa.gov.au), to understand:
- the requirements of the *Contaminated Sites Act 2003* and Contaminated Sites Regulations 2006
 - the National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended in May 2013
 - process improvements developed during the statutory five-year review of the *Contaminated Sites Act 2003*.

Controlled wastes from site clean-up sites

61. The department regulates the transport of controlled waste on roads by administering the Environmental Protection (Controlled Waste) Regulations 2004 under the *Environmental Protection Act 1986*. A licence from this department is required to transport any controlled wastes resulting from the clean-up from contaminant spills.
62. A person transporting bulk-controlled waste (i.e. liquid waste within a tank) on a road must hold a controlled waste driver's licence and a licence relevant to the type of controlled waste. Any vehicle or tank transporting bulk- controlled waste must also be licenced. Different provisions apply to transporting packaged controlled wastes.
63. The regulations also provide for the tracking of controlled wastes from the point of generation to unloading at an approved waste facility, through the use of controlled waste tracking forms, which must accompany the load and be copied to this department.
64. To transport contaminated clean-up materials that are 'dangerous goods' the *Australian code for the transport of dangerous goods by road and rail (ADG Code)*, should be followed. There are also various regulations that sit under the *Dangerous Goods Safety Act 2004*. Further information is available from DMIRS (www.dmirs.wa.gov.au).

Penalties

Discharges of environmentally harmful materials into the environment can result in formal letters of warning, on the spot infringement notices or prosecution.

65. This department is responsible for investigating and prosecuting illegal dumping under the *Environmental Protection Act 1986*. Illegal dumping is the unauthorised discharging or abandonment of waste and is an offence under Section 49A of the Environmental Protection Act. On conviction, the offence carries a maximum fine of \$125,000 for corporations and \$62,500 for individuals.
66. It is an offence under Environmental Protection (Unauthorised Discharges) Regulations 2004 to cause or allow animal waste, food waste and other scheduled items to be discharged to the environment. The regulations are intended to ensure that operators engaged in commercial activity take responsibility for preventing the escape of contaminants into the environment, otherwise penalties apply.
67. The Environmental Protection (Unauthorised Discharges) Regulations cover discharges into the environment from business or commercial activities which individually are not

serious enough to cause pollution and breach the provisions of the *Environmental Protection Act 1986* but cumulatively can cause harm. These regulations are enforced by this department and local governments. More information on these regulations can be found in the following fact sheet: *Environmental Protection (Unauthorised Discharges) Regulations 2004*, available www.dwer.wa.gov.au.

68. It is an offence under section 72 of the *Environmental Protection Act 1986*, to fail to report discharges of waste likely to cause pollution or environmental harm to this department.
69. It is an offence under section 11 of the *Contaminated Sites Act 2003* for site owners, occupiers or a person who knows or suspects that they have caused or contributed to contamination, to fail to report it to this department within 21 days of first being aware of the contamination.

Appendix A – Emergency contact details

Table 1: Emergency contact details (*after hours*)

Contact	Issue	Contact details
Ambulance, fire or police	Life or property emergencies, hazardous material spills in a building or on a road	000 (24 hours)
Police	Non-life-threatening incidents	13 14 44 (24 hours)
Department of Fire and Emergency Services	State emergency services assistance	13 25 00 (24 hours) (08) 9395 9395 (satellite phones/ interstate calls)
	Emergency information	13 3337 / 13 DFES
Department of Water and Environmental Regulation – Pollution response	Notification of spills and pollution	1300 784 782 (24 hours)
Department of Biodiversity, Conservation and Attractions – Riverpark Unit	Reporting Swan or Canning river pollution	(08) 9278 0981 (24 hours)
Poisons information centre	Chemical safety data	13 11 26 (24 hours)
Water Corporation	Spills or accidents within public drinking water source areas	13 13 75 (24 hours)
ChemCentre WA	Emergency response, chemical identification, chemical sampling, testing and analysis of water samples residue analysis, air-quality analysis, occupational health investigations, advice on personal protective equipment, neutralisation protocols, decontamination, buffers and clean-up remediation	(08) 9422 9940 (24 hours) (08) 9422 9800 (business hours) www.ccwa.wa.gov.au enquiries@chemcentre.wa.gov.au

Table 2: Agency specific issues - contact details (**business hours**)

Contact	Issue	Contact details
Department of Mines, Industry Regulation and Safety	Safety, reporting, storage, transport and use and of dangerous goods, emergency response guides (FES-ERG).	(08) 6251 2300 dgsb@dmirs.wa.gov.au
Department of Fire and Emergency Services	Fire and rescue service, incident controller, chemical spill emergencies.	(08) 9395 9300 (reception) 13 25 00 (emergencies) 13 33 37 (emergency information) www.dfes.wa.gov.au
Department of Water and Environmental Regulation	Reception	(08) 6364 7000 primehouse.reception@dwer.wa.gov.au www.dwer.wa.gov.au
	Pollution Watch hotline/ pollution response. Discharges of pollutants into the environment.	1300 784 782 (24 hours) pollutionwatch@dwer.wa.gov.au
	Controlled waste	(08) 6364 6946 controlled.waste@dwer.wa.gov.au
	Contaminated sites	1300 762 982
	Water source protection planning for PDWSA contaminant spills and information on this document.	drinkingwater@dwer.wa.gov.au
	Water monitoring data.	spatial.data@water.wa.gov.au
Water Corporation	Spills or other risks to drinking water, scheme water quality, emergencies affecting drinking water, reporting pollution in PDWSAs.	source.protection@watercorporation.com.au 13 13 75 (24 hours) www.watercorporation.com.au
Local government authorities – Environmental health sections	Environmental health, storage of harmful materials, waste management and disposal.	Contact your relevant local government

<p>Department of Biodiversity, Conservation and Attractions (DBCA) – Riverpark Unit</p>	<p>Reporting Swan or Canning river pollution.</p>	<p>(08) 9278 0981 (24 hours) riverpark.incidents@dbca.wa.gov.au</p>
<p>ChemCentre WA</p>	<p>Emergency response, chemical identification, chemical sampling, testing, and analysis of water samples, residue analysis, air quality analysis, occupational health investigations, advice on personal protective equipment, neutralisation protocols, decontamination, buffers and clean-up remediation.</p>	<p>(08) 9422 9940 (24 hours) (08) 9422 9800 (business hours) www.ccwa.wa.gov.au enquiries@chemcentre.wa.gov.au</p>

Appendix B – Contamination response checklist

No.	Issue	YES / NO
	Site emergency response plan (ERP) follows PPRR model, is available, up to date and has been regularly reviewed	
	List of emergency contacts is available and up to date	
	Spill prevention measures are in place and in good condition	
	Chemicals are located and stored appropriately	
	Site staff are trained, and incident response roles are assigned, including a designated emergency response manager for the site	
	Record of previous incidents has been maintained and is up to date	
	Drainage management plan and site layout plan is available and up to date	
	Operator understands local water resources (including PDWSAs), their values and location and has appropriate protection measures in place	
	Safety Data Sheets and a chemical inventory are available on site	
	Chemical containers labelled with contents and suppliers' safe-use instructions	
	Contamination control and spill equipment is available on site	
	Spill and contamination risk assessment is available for the site	
	Site communications (warnings, links, defined response protocols) are adequate	
	Protective clothing/ spill mitigation/clean-up equipment is available	
	Emergency response protocols are available and have been tested	
	Site evacuation procedure is available and has been tested	
	Relevant stakeholder notification arrangements are in place	
	Incident classification system is available (high, medium, low)	
	Contaminated waste and spill materials are appropriately contained, controlled, cleaned, treated or disposed of consistent with regulations	
	Arrangements for government agency support services are in place	
	All appropriate contacts adequately notified of the incident in a timely manner, including the Department of Water and Environmental Regulation	
	Site operator took appropriate corrective action to deal with contamination incident on discovery	
	Site operator cooperated with government response agencies	
	Site operator undertook appropriate post-incident review	
	Contractor was employed to manage site assessment /effective remediation	
	Investigation of extent of water resource contamination including lab analyses compared to NWQMS guidance criteria, conducted	
	Barriers/ management improvements made to prevent repeat incidents	
	Penal action does not need to be initiated as result of contamination incident	

Shortened forms

ADWG	Australian drinking water guidelines
CCWA	ChemCentre WA
DBCA	Department of Biodiversity, Conservation and Attractions
DFES	Department of Fire and Emergency Services
DMIRS	Department of Mines, Industry Regulation and Safety
FES-ERG	Fire and emergency services emergency response guide
ERP	Emergency response plan
HAZMAT	Hazardous Materials
LGA	Local government authority
MEER	Maritime Environmental Emergency Response
NWQMS	National water quality management strategy
PDWSA	Public drinking water source area
PPRR	Prevention, preparedness, response and recovery
SDS	Safety Data Sheet
SEMC	State Emergency Management Committee
State Hazard Plan–HAZMAT	Western Australian plan for hazardous materials (previously named Westplan–HAZMAT and WAHMEMS)
WQPN	Water quality protection note

References and further reading

Further reading is available in WQPN 8: *Further reading*.

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- AS 3745 *Planning for emergencies in facilities*
- AS/NZS 5667 *Water quality sampling guidelines*
- AS/NZS 4482.1 *Guide to investigation and sampling of sites with potentially contaminated soil*
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