



Domestic Wastewater Overflows

Information for Householders, Local Governments and Wastewater Service Providers

Information in this factsheet

This information is designed to assist people who are unfortunate enough to experience a domestic wastewater overflow either inside, or on the outside of their home or place of residence. It also explains what actions can be taken to reduce the chance of wastewater overflowing inside your home.

The following questions and information are detailed within this factsheet:

- What is a domestic wastewater overflow?
- What are common causes of domestic wastewater overflows?
- What is the purpose of an overflow relief gully?
- What potential health risks does contact with wastewater pose?
- Who is responsible to respond to a domestic wastewater overflow?
- Clean-up procedures for domestic wastewater overflows
- Legal powers and responsibilities in the event of a domestic wastewater overflow
- Emergency contact numbers

What is a domestic wastewater overflow?

A domestic wastewater overflow is an overflow of wastewater (blackwater or greywater) onto a person's property (i.e. within the land boundary of a person's place of residence) or into a person's home. A domestic wastewater overflow may occur on a seweraged property (a property which is connected to the sewerage main) or on lots with onsite sewerage disposal e.g. septic tanks and leach drains.

Note: Blackwater is water that originates from the toilet and is therefore contaminated with faeces and/or urine. Greywater is water that essentially originates from bathrooms, kitchens, or laundries.

What are common causes of domestic wastewater overflows?

Some of the common causes of domestic wastewater overflow events include:

- Blocked sewerage mains caused by tree roots, accumulation of fats and/or other objects e.g. rags, children's toys and miscellaneous items;
- Failure of, or inadequate maintenance and servicing of onsite sewage systems e.g. aerobic treatment units, septic tank and leach drains.

Note: A blockage in the sewerage main can cause wastewater to backflow up through the 'overflow relief gully' and empty out into the backyard or side areas around your home. If the



overflow relief gully is blocked, or covered, wastewater may backflow and overflow inside your home.

What is the purpose of an 'overflow relief gully'?

An overflow relief gully is a drain like fitting that has a small removable grate. It is normally located near the bathroom or laundry on the outside of your home. The grate is located approximately 75mm above ground level.

The overflow relief gully connects the sewerage main and plumbing pipework from within the home. The base of the overflow relief gully pipe is located at a level that is lower than any other pipe that exits from within the home.

The overflow relief gully is designed to ensure that if the sewerage main becomes blocked, that wastewater from your home will overflow out of the overflow relief gully rather than backflow inside your home.



Overflow Relief Gully

Note: In order to prevent wastewater back-flowing into your home, it is important to ensure that your overflow relief gully:

- Is **NOT** covered by landscaping, garden beds, pot-plants or paving;
- The grate (i.e. the plastic or metal grated lid) is **NOT** damaged or concreted i.e. permanently fixed to drain. The grate should easily pop-off.

For further information regarding overflow relief gullies see useful weblinks and publications: "[Our wastewater system](#)".

Note: If you have an **onsite sewage system**: It is important to ensure that you operate, maintain and keep it serviced in accordance with:

- approval to use conditions and;
- Manufacturer recommendations.

The general service and maintenance period for the following onsite sewage systems is as follows:

- Aerobic treatment units every 3 months;
- Septic tanks and leach drains every 2-3 years.

It is also important to ensure that trees are not planted over, or located in close proximity to sewerage pipes or onsite sewerage systems. Some types of trees may have more invasive root systems than others.



What potential health risks does contact with wastewater pose?

Wastewater contains 99.7% water; however, the 0.3% of dissolved and suspended matter, can contain many micro-organisms that may be harmful to humans, animals and the environment such as viruses, bacteria, fungal, and parasitic organisms.

Contact with wastewater or its products may cause exposure to pathogens (disease causing microorganisms) which can potentially lead to a number of illnesses for example:

- Gastroenteritis (diarrhoea or vomiting);
- Giardiasis and Cryptosporidiosis (severe stomach cramps, diarrhoea or vomiting);
- Viral infections such as hepatitis (liver infections);
- Infections of the skin or eyes.

What are the routes of exposure to pathogens?

People can be exposed to pathogens by:

- Hand to mouth contact during eating, drinking and smoking, or by wiping the face with contaminated hands or gloves, or by licking droplets from the skin;
- Skin contact, through cuts, scratches, or penetrating wounds. Certain organisms can enter the body through the surfaces of the eyes, nose and mouth; or
- Breathing in organisms, either through dust, aerosols, droplets or mist.

How can I reduce my risk of exposure to wastewater during an overflow event?

In all situations where a wastewater overflow clean up is being undertaken on your property, all persons involved in the cleanup should wear personal protective clothing such as rubber boots, rubber gloves and washable or disposable coveralls.

Unprotected persons should keep away from the affected area until the area has been thoroughly cleaned and disinfected.

Other safety precautions to be followed include:

- Assume anything touched by wastewater is contaminated.
- Wash your hands and affected areas of the body thoroughly with clean warm water and soap, especially before eating or smoking.
- Ensure that any cuts/scratches or wounds are properly covered (water proof bandaging/dressing are most effective) before undertaking any cleaning activities.
- Immediately wash and disinfect wounds that come into contact with wastewater.
- Change out of dirty clothes and wash clothes separately.
- Clean and dry dirty footwear.
- Contact your doctor immediately if you experience any illness.

Are odours from wastewater a health concern?

Odours from wastewater may be annoying but they are not a direct health concern. If odours persist please contact:

- For sewered properties: the wastewater service provider (generally [Water Corporation](#));
- For properties with onsite sewage disposal: the [Local Government](#) Environmental Health Service.



Note: If you're a neighbour that is experiencing an odour problem, that is, or appears to be coming from your neighbours' property, please contact your [Local Government](#) Environmental Health Service.

Who is responsible to respond to a domestic wastewater overflow?

When are and which Wastewater Service Providers are Responsible?

Wastewater service providers may be fully, or partially responsible for a domestic wastewater overflow, which occurs as a result of a fault or blockage within the sewerage main.

Water Corporation is the primary wastewater service provider in WA, and as such respond to many wastewater overflows (including domestic). However, there are also other wastewater service providers, e.g. Local Government authorities, land developers, mining companies, businesses, organisations or agencies that have responsibility for the carriage, treatment and disposal of sewage.

Responsibility for Provision of Temporary Alternate Accommodation

In situations where the premise has become uninhabitable, the person or organisation responsible for the wastewater overflow should immediately make available suitable temporary alternate accommodation, to the owner/s or occupier/s (applicable to the situation) for the duration of premise clean up and remediation.

When is a Property Owner Responsible?

If the cause of a wastewater overflow is directly related to the sewage system located on your property boundaries, then the responsibility to clean, disinfect, repair and/or replace equipment etc will reside primarily with the owner of the affected property.

For further information regarding responsibilities, please refer to the heading: *'Legal powers and responsibilities in the event of a domestic wastewater overflow'*.

Clean up procedures for domestic wastewater overflows

Clean up following a wastewater overflow should begin as soon as possible! If you are involved in wastewater clean-up in any way, please use common sense and follow occupational health and safety considerations! Some simple suggestions include:

- Covering any cuts or broken skin with a waterproof dressing or bandage;
- Wear personal protective equipment e.g. disposable protective coveralls over clothing, long pants, long shirt, boots, rubber gloves, face mask, safety glasses when cleaning to avoid skin contact with wastewater, splash or aerosols;
- Dispose of contaminated rags/cloths into the rubbish bin immediately after use;
- Do not use dirty rags, cloths etc to wipe over clean surfaces;
- Dispose of, or wash and disinfect soiled clothing once cleaning is completed, and;
- Wash hands and face after clean-up with soap and warm water.

If the wastewater service provider is fully, or partially responsible for the wastewater overflow, they may complete or assist with the clean-up, remediation and/or replacement of any soiled, damaged or affected items.

For further information regarding responsibilities, please refer to the heading: *'Legal powers and responsibilities in the event of a domestic wastewater overflow'*



Clean up generally involves the following steps:

Indoors

- Organise an insurance assessor to verify damage and loss to property and possessions, including determining property and possessions that require repair and/or replacement.
- Depending upon the extent of the wastewater overflow, organise a professional cleaning contractor to undertake cleaning procedures.
- Indoor clean up procedures involve:
 - pumping out wastewater (as appropriate);
 - cleaning the area thoroughly and;
 - applying a chemical disinfectant over the affected area.
- Use natural ventilation and fans to assist in drying the area to prevent mould growth.
- All items unable to be hygienically cleaned by a professional shall be disposed of appropriately off site.

Outdoors

- All pooling wastewater shall be pumped out into a control waste vehicle and transported offsite for disposal back into the sewer or at an approved landfill location.
- Contaminated hard surface areas (e.g. concrete, brick-paving etc) shall be thoroughly washed down with clean water and a chemical disinfectant applied over the area.
- All water used to clean the area must NOT be disposed of into the stormwater drain. This water must either soak naturally into surrounding soil and grassed areas, or if pooling be disposed of away from the site back into the sewer or transported to an approved landfill.
- In some circumstances, hydrated lime (builders lime) may be spread over the area and mixed into the soil (if in a non-paved area). This helps to neutralise wastewater so that it is less harmful to the environment, and it also assists in reducing odours. Cleanfill soil may also be spread over soil and/or grassed areas.
- Avoid contact with decontaminated affected surface areas (for at least 24 hours following clean-up/disinfection) and allow exposure to the suns ultraviolet rays to assist in destroying disease causing micro-organisms.

What is involved in the disinfection process?

Disinfection is the process of destroying or preventing the growth of disease causing microorganisms.

Chemical disinfectants commonly used during wastewater overflow clean up procedures contain an active ingredient of 1% Quaternary Ammonium Compound. This disinfectant is considered appropriate by the Department of Health when it is used in accordance with the manufacturer's instructions. Two commonly used disinfectants are Accent Tang and Jasol Green Pine.



What are the cleanup requirements for the following household items damaged by wastewater?

Carpets or rugs

In general, saturated carpeting (and the underlay) cannot be adequately cleaned after it has been contaminated by wastewater. Where possible the carpet and underlay should be removed and replaced. The wastewater service provider (if responsible) may advise regarding the renewal and replacement of carpet and underlay.

In situations where the householder has decided to keep a carpet and/or rug (i.e. sentimental reasons), a professional carpet cleaning company shall clean and disinfect the carpet and rug. The underlay for the carpet shall be disposed of and replaced prior to use.

Mattresses, bedding, linen, upholstered furniture and stuffed toys

Absorbent materials such as bedding and linen that have been saturated by wastewater must be properly cleaned, disinfected and dried.

Mattresses, upholstered furniture and stuffed toys that have been saturated with wastewater shall be destroyed and replaced, as they may become reservoirs for the growth of micro-organisms and spread of disease. If these items have only been lightly contaminated with wastewater and are salvageable, then a professional cleaning company shall clean and disinfect these items.

Hard surfaces such as wood, concrete, wood mouldings, hardwood floors and metal furniture

All hard surfaces should be thoroughly cleaned with clean hot water and detergent, and then properly disinfected by a cleaning contractor. All items must then be thoroughly dried.

Vinyl floor areas/tiled areas

Generally vinyl and tiled floor areas are nonporous (do not absorb water). After the area has been cleaned and disinfected, these areas should be carefully examined, as wastewater may migrate into cracks or to the perimeter of the floor and become trapped below the surface. If migration has occurred, these materials must be removed, undergo further cleaning and materials replaced or reinstated as required.

Plaster/plaster boards

Plaster or plaster boards that are saturated and are soft to touch should be cleaned and disinfected. If any of these materials are retaining moisture they should be thoroughly dried out, or removed and replaced, and then disposed of appropriately.

Household appliances

Any household appliance that has been in contact with wastewater should be cleaned with warm water and detergent, and then rinsed with a disinfectant solution and allowed to dry.



How should swimming pools and fish ponds be cleaned up?

Fish pond

Wastewater will generally not harm fish. However, depending on the amount of wastewater the fish may need to be removed from the pond. The pond volume should then be partially replaced with de-chlorinated clean water. People and pets should not have contact with the pond for at least 2-3 days.

Swimming pools

There are two general options for cleaning swimming pools contaminated with wastewater which include:

- Emptying, cleaning and then refilling the pool; or
- Removing all visible material from the pool using a scoop etc. Then;
- Adding a flocculent or clarifier to the pool, dispersing it over the entire pool.
- Ensuring the chemical mixes thoroughly with all pool water.
- Turning the filter OFF for 8 hours to allow material to settle on bottom of pool.
- Vacuum material settled on pool floor to waste (if possible - not through filter).
- Backwashing the filter.
- Super chlorinating water to 8-10 mg/L and maintain for approximately 24hrs
- Adding:
 - 14 grams of granular chlorine (calcium hypochlorite) per 1000 Litres, or
 - 80mL of liquid chlorine (sodium hypochlorite) per 1000 Litres.
- Checking to ensure pH is 7.2 - 7.6. If necessary, add sufficient chemicals to adjust the pH.
- Operate filter for 24 hours.
- Backwashing filter.
- Ensuring water is clear and chlorine levels are between 1-5mg/L before people use pool.
- If water is still turbid, repeating flocculation process.
- If water still cloudy, drain and refill pool.

Backwash wastewater must **NOT** be disposed of into the stormwater drain, but emptied into a soakwell or disposed of offsite at an approved location.

For further information contact your [Local Government](#) Environmental Health Service.

If wastewater has overflowed onto grassed, concrete or bricked outdoor surfaces, when will it be safe to use this area again?

In situations where wastewater has overflowed onto grassed, concrete or brick surfaces, it is advisable to keep children and pets off these areas following clean up and disinfection for at least 24 hours.

What about vegetable gardens and fruit trees? Are they safe to eat?

Fruit and vegetables that have had contact with wastewater may be contaminated by disease causing microorganisms. All leafy vegetables and soft skinned fruits e.g. strawberries that have had any contact with wastewater should be discarded.

Fruit and root vegetables, including fruit from fruit trees (as a precaution) should be washed in a solution of at least 100mg/L of chlorine and rinsed with clean water prior to consumption. All vegetables should be thoroughly cooked before consumption.



What about my plants?

Any affected plants should be gently watered with clean water and not touched for 2-3 days after the overflow to allow natural disinfection to occur. In certain cases, extra top soil (i.e. sand) may be applied over the area.

Animal beds/bird aviaries

It is important not to forget your pets in such events. Ensure any pet beds, food bowls etc that have had contact with wastewater are cleaned and disinfected or discarded.

In bird aviaries, first remove the birds from the cage. You should ensure that all bird seed that has had contact with wastewater is discarded. The area should then be cleaned with warm water and a disinfectant applied to all surfaces. Depending on the type of floor surface, lime and/or clean sand can also be spread over the area. The aviary should be allowed to dry before birds go back into the cage.

Note: In the first instance it may be better to ensure that animal beds/bird aviaries are not located on top of or in close proximity to the overflow relief gully.

Outdoor sports equipment, childrens toys, tools and other hardware

All outdoor equipment including but not limited to sporting gear, children's toys, tools or hardware that have had contact with wastewater must be washed with warm water and detergent, and then soaked in a disinfectant and allowed to dry.

Note: Give electrical power tools a light spray of disinfectant and wipe over to clean!

How do I prevent mould growth after a wastewater overflow occurs?

Mould growth after a wastewater overflow may occur as a result of excess moisture in materials. If a material stays wet mould is likely to grow. In order to prevent mould from growing, it is important to ensure all materials exposed to wastewater are thoroughly cleaned, disinfected and dried, or appropriately disposed of off site.

It is extremely important to keep the area well ventilated following the event to assist in drying. Windows and doors should be kept open, and fans should be used to assist in the drying process.

Legal powers and responsibilities in the event of a domestic wastewater overflow

Owner/Occupier responsibilities

Under the [Health Act 1911](#) (the Act), the owner and the occupier have specific responsibilities for adjoining drains and fittings on their property boundary which are connected with the sewer.

These legal responsibilities are summarised as follows:

Owner [see Section 78 (2)]

- May only repair drains and fittings that are within their property boundary, which are connected with the sewer, if their [Local Government Authority](#) (LGA) directs them to do so.
- Required to pay for the cost of repairing any drains and fittings that are within their property boundary which are connected with the sewer.



Implication for Owner & LGA:

Report any problems with your drains and fittings at your property to your LGA and seek their permission/direction to fix any relevant drains and fittings.

Note: It may be helpful to send a copy of the plumbers' written quote/report to the LGA to confirm the nature of the problem. The Department of Health recommends that the LGA visit the premise upon notification of a domestic wastewater overflow, to confirm the nature and/or extent and cause of the wastewater overflow/problem.

Occupier [see Section 78 (2)]

- May only clean the drains and fittings that are within their property boundary, which are connected with the sewer if their LGA directs them to do so.
- Required to pay for the cost to clean any drains and fittings that are within the property boundary which are connected with the sewer.

Implication for Occupier & LGA:

Report any problems with your drains and fittings at your place of residence to your LGA and seek their permission/direction to clean any relevant drains and fittings.

It may be helpful to request that the LGA inspect the premise to confirm the nature and/or extent of the problem.

Offences [see Sections 78 (1) (a), (b) & 79 (1)]

The owner/occupier of a property commits an offence if they:

- Clean and/or repair any drains and fittings within their property boundary, which are connected to the sewer without the direction of their LGA.
- Do not clean and/or repair the drains and fittings that are within their property boundary, which are connected to the sewer when directed to by their LGA.
- Obstruct or encroach upon the sewer without written permission from their LGA.
- **Note:** Disputes between neighbours regarding the cause of and responsibility for domestic wastewater overflow incidents are civil matters, and as such may require legal advice or representation if a resolution is not forth-coming.

Local Government powers and/or responsibilities

Under the [Health Act 1911](#); a LGA has the following powers and responsibilities:

- Must ensure that all drains, sanitary conveniences, and apparatus for the treatment of sewage are constructed and kept so they are not a nuisance, dangerous or injurious to health [see S107 (1)].
- May enter an owner/occupier's property and dig up/open and examine any drain, sanitary convenience, or apparatus for the treatment of sewage, if it is suspected of been a nuisance or injurious to health [see S108 (1)].
- May inspect and direct the owner/occupier to clean/repair any drains and fittings on their property that are connected with the sewer [see S78 (1)].
- May serve a notice upon the owner/occupier to rectify any drain, sanitary convenience, or apparatus for the treatment of sewage on their property [see S108 (3)].
- May serve a nuisance order upon the owner/occupier of a premise to direct them to rectify/make good a nuisance (see S87).



- May restore or reinstate the sewer; and recover expenses from the person responsible [see S79 (2)].
- May undertake relevant works and recover expenses from the owner/occupier, if they neglect or refuse to comply with the LGA's direction [see S108 (4a)].
- May serve a notice to several owners/occupiers to recover expenses for works it performs to a single private drain connected with a public sewer [see S108 (4b)].
- May clean sanitary conveniences and drains, collect and dispose of sewage and clean and water streets [see S112 (1)].

Wastewater Service Provider responsibilities

In WA, the [Economic Regulatory Authority](#) licenses a number of wastewater service providers. There are also a number of wastewater service providers that the [Department of Water](#) have assessed and deemed not to require a license.

The responsibilities of wastewater service providers (licensed or otherwise) are to:

- Convey, treat and dispose of wastewater;
- Ensure that sewage is not discharged onto any land or place than what is otherwise purposed (see Section 98 of the [Health Act 1911](#)).

Note: Wastewater from the sewerage main will contain sewage and therefore unauthorised discharge under the [Health Act 1911](#) is an offence.

Useful weblinks & publications

1. Information on sewerage system:
<http://www.watercorporation.com.au/Home/Residential/Water%20supply%20and%20services/Wastewater/Your%20responsibilities>
2. Water Corporation: <http://www.watercorporation.com.au/about-us/contact-us>
3. Local Government: http://www.walga.asn.au/about_lg/council_websites
4. Department of Housing Rental Housing Reporting Maintenance:
http://www.dhw.wa.gov.au/2216_2218.asp
5. Department of Water:
<http://www.water.wa.gov.au/Business+with+water/Water+licensing/default.aspx>
6. Economic Regulatory Authority: <http://www.erawa.com.au/0/51/51/licensing.pm>
7. Health Act 1911:
http://www.slp.wa.gov.au/legislation/statutes.nsf/main_mrtitle_412_homepage.html



Emergency contact numbers and further information

To notify the responsible wastewater service provider or agency concerned regarding a domestic wastewater overflow event please note the following contact details:

Department of Housing – Rental properties

- Housing Direct on **1300 137 677** for emergency repairs

Sewered Properties (Water Corporation customers – majority of locations)

- [Water Corporation's](#) Faults, Emergencies and Security line on **13 13 75**
Email: customer@watercorporation.com.au

Local Government Authority

- Your [Local Government](#) Environmental Health Service, for properties with onsite sewage disposal, or if your LGA is your wastewater service provider, or to report a problem with drains and fittings.

Department of Health

- Environmental Health Directorate on **+61 8 9388 4999**
Email: ssalert@health.wa.gov.au

More information

Water Unit
Environmental Health Directorate
Department of Health
PO Box 8172
PERTH BUSINESS CENTRE WA 6849
Telephone: (08) 9388 4999
Fax: (08) 9388 4910

Produced by Environmental Health Directorate
© Department of Health, Western Australia 2013

