# Domestic wastewater overflow – cleaning up

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Clean-up following a wastewater overflow (sewage spill) should begin as soon as possible.

If you are involved in wastewater clean-up, the following simple suggestions may help:

Turn off electrical power in the area that has been flooded if there is any chance of electrical wires, extension cords, or electrical appliances or fixtures coming in contact with standing water or wet materials. This may involve switching off the power at the house switchboard or fuse box, or calling a licensed electrician

Assume that any surface or material touched by wastewater is contaminated.

Keep children and pets away from any area affected by a wastewater overflow.

- Cover any cuts, scratches or broken skin with a waterproof dressing or bandage.
- Wear personal protective equipment when cleaning to avoid skin contact with wastewater, splash or aerosols. This can include:
  - disposable protective coveralls
  - long pants and long shirt
  - boots
  - rubber gloves face mask
  - safety glasses.
- Throw away contaminated rags or cloths immediately after use.
- Do not use dirty rags, cloths or other material to wipe over clean surfaces.
- Dispose of, or wash and disinfect dirty clothing once you have finished the cleaning.
- 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:

- clean-up
- remediation
- replacement of any soiled, damaged or affected items.

# Organising a clean-up after a wastewater overflow

You should consider taking the following steps if your house or property has been affected by a wastewater overflow.

#### Indoors

- Organise an insurance assessor to verify damage and loss to property and possessions. This will include 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.

#### Procedures involve:

- pumping out wastewater (as appropriate)
- cleaning the area thoroughly
- applying a chemical disinfectant over the affected area.
- Natural ventilation and fans should be used to assist in drying the area. This will prevent mould growth.
- All items unable to be hygienically cleaned by a professional must be disposed of appropriately offsite.

#### Outdoors

- All wastewater must be pumped out into a control waste vehicle. This will then be transported offsite for disposal – either back into the sewer or at an approved landfill location.
- Contaminated hard surface areas (for example concrete and brick-paving) must be thoroughly washed down with clean water and a chemical disinfectant.
- Water used to clean the area must not be disposed of into the stormwater drain. The
  water must either be allowed to soak naturally into surrounding soil and grassed areas
  or, if it is pooling, taken away from site and back to the sewer or to an approved landfill.
- In some circumstances, quicklime (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. This also assists in reducing odours. Clean fill 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.
- Exposure to the sun's ultraviolet rays will assist in destroying disease causing microorganisms.

# What is involved in the disinfection process?

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

Chemical disinfectants are commonly used in the clean-up of wastewater overflow and they usually contain an active ingredient of 1 per cent 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

# Cleaning your home, property and personal belongings damaged by wastewater

Care should be taken to properly clean and disinfect any areas or personal items that have been affected by wastewater.

#### Indoors

### Carpets or rugs

In general, saturated carpet and its underlay cannot be adequately cleaned after it has been contaminated by wastewater.

Where possible the carpet and underlay should be removed and replaced.

If the wastewater service provider is responsible, they may advise replacing the carpet and underlay.

If the householder has decided to keep a carpet or rug, these must be cleaned and disinfected by a professional carpet cleaning company.

The underlay for the carpet must 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.

These items may become reservoirs for the growth of microorganisms and spread of disease.

If these items have only been lightly contaminated with wastewater and are salvageable, they must be cleaned and disinfected by a professional cleaning company.

#### Hard surfaces

All hard surfaces should be thoroughly cleaned with clean hot water and detergent. This includes wood, concrete, wood mouldings, hardwood floors and metal furniture.

They also need to be disinfected by a cleaning contractor. All items must be thoroughly dried.

### Vinyl or tiled flooring

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
- replaced or reinstated as required.

#### Plaster and plaster boards

Plaster or plaster boards that are saturated and 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

Seek the advice of a licensed electrician to determine if an appliance that has been in contact with wastewater can be salvaged before use. Do not plug in or turn on any appliance. As the risk of electrocution exists, a licensed electrician should check power supply and electrical appliances before they are plugged in.

Any household appliance that has been in contact with wastewater should be cleaned with a clean cloth rinsed in warm water and detergent, or disposed of in a safe fashion. It also needs to be wiped with a disinfectant solution and allowed to dry.

# Using outdoor areas after wastewater overflow

In situations where wastewater has overflowed onto grass, concrete or brick surfaces it is advisable to keep children and pets off these areas.

The area should be safe to use 24 hours after clean up and disinfection.

# Are the vegetables and fruit in my garden safe to eat?

Fruit and vegetables that have had contact with wastewater are likely to be contaminated by microorganisms that can cause disease.

All leafy vegetables and soft skinned fruits, for example strawberries, that have had any contact with wastewater should be discarded.

As a precaution, fruit and root vegetables, including fruit from fruit trees should be washed in a solution of at least 100 milligrams per litre of chlorine.

They should be rinsed with clean water before they are eaten.

All vegetables should be thoroughly cooked before they are eaten.

### What about my plants?

Any affected plants should be gently watered with clean water and not touched for 2 to 3 days after the overflow to allow natural disinfection to occur.

In certain cases, extra top soil (sand) may be applied over the area.

#### Animal beds and bird aviaries

It is important not to forget your pets if your wastewater overflows.

Ensure any pet beds, food bowls and toys 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. It may be better to ensure that animal beds or bird aviaries are not located on top of or in close proximity to the overflow relief gully.

## Sports equipment, children's toys, tools and other hardware

All outdoor equipment including sporting gear, children's toys, tools or hardware that have had contact with wastewater must be washed with warm water and detergent.

They also need to be soaked in a disinfectant and allowed to dry.

Electrical power tools can have a light spray of disinfectant and dried with a cloth.

# **Pools and ponds**

#### 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 dechlorinated clean water.

People and pets should not have contact with the pond for at least 2 to 3 days.

### Swimming pools

There are 2 general options for cleaning swimming pools contaminated with wastewater. The first option is to empty, clean and then refill the pool.

The second option involves:

- removing all visible material from the pool using a scoop
- adding a flocculent or clarifier to the pool and 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
- vacuuming material settled on pool floor to waste if possible it should not go through filter
- backwashing the filter
- superchlorinating water to 8 to 10 milligrams per litre and maintain for approximately 24 hours adding:
  - 14 grams of granular chlorine (calcium hypochlorite) per 1000 litres of water or
  - o 80 millilitres of liquid chlorine (sodium hypochlorite) per 1000 litres of water
- checking the pH level is 7.2 to 7.6 and if necessary adding sufficient chemicals to adjust the pH
- operating the filter for 24 hours
- backwashing the filter
- ensuring water is clear and chlorine levels are between 1 to 5 milligrams per litre before people use the pool
- repeating flocculation process if water is still turbid (cloudy).

If the pool water is still cloudy after this process, you may still have to drain, clean and refill the pool.

Backwash wastewater must not be disposed of in the stormwater drain. It should be emptied into a soakwell. Alternatively it can be disposed of offsite at an approved location.

For further information contact your local government environmental health service.

# 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.

To prevent mould from growing, it is important to ensure all materials exposed to wastewater are thoroughly cleaned, disinfected and dried.

Alternatively, you can dispose of them offsite.

Following the clean-up, it is extremely important to keep the area well ventilated to assist in drying.

Windows and doors should be kept open.

Fans should be used to assist in the drying process.

## Where to get help

- Contact Environmental Health Services at your <u>local government (external site)</u>.
- Phone the <u>Department of Housing (external site)</u> on 1300 137 677. You can also fill out an <u>online maintenance request form (external site)</u>.
- For sewered properties phone the Water Corporation (external site) on 13 13 75.
- Contact the **Department of Water (external site)**.

## Acknowledgements

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