

Stormwater Management

Preventing Pollution





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Auckland Airport has prepared this handbook for all airport workers who could potentially pollute the airport environment.



Introduction

The Airport Stormwater Management Plan involves ensuring that only clean rain water enters the Airport's stormwater drains. Hard surfaces such as parking areas, runways, taxiways, aprons and roads allow contaminants such as oil and fuel spills, leaks, litter, rubber from tyres and sediment to be transported with rain water into stormwater drains.

Contaminants transported into Airport stormwater drains eventually find their way into the streams, estuaries and harbour around the airport. This handbook looks at how you can prevent contaminants entering the environment.

Water is a valuable resource and the community's use of water for drinking, farming, fishing and recreation can be threatened by the discharge of contaminants.



How contaminants affect the environment

Some of the everyday things that pollute water and harm plants and animals living in our environment are:

Fuels – Fuels damage fish gills so they can't breathe, as well as poisoning animals and burning plants.

Oils – Oil prevents oxygen from getting into the water. Waste oil can contain additional toxic substances such as metals, sulphur and acids.

Detergents – Some detergents are toxic to fish. Detergents use up dissolved oxygen in the water as they break down, which can result in the suffocation of water life.

Sediment – Sediment smothers stream beds harming stream life and food resources. Sediment can cause extensive plumes in estuaries, harbours and coastal water.

Hazardous chemicals – Most hazardous chemicals have adverse effects on the environment and human health when released into the environment. Each type of hazardous chemical reacts in a different way. Containers holding hazardous substances should be clearly labelled. Material Safety Data Sheets should be kept in an accessible location in the event of a spill.

Organic foodstuffs and beverages – These decay and rot in water; they use up oxygen causing fish and insects to suffocate.

Paint and ink – These substances are a highly visible pollutant and paint is poisonous to stream and sea life.

Auckland Airport employees, Airport users, tenants, contractors are expected to:

- Not allow contaminants to enter the Airport's stormwater system
- Not leave contaminants in a way that allow them to be washed into the Airport's stormwater system.



How to prevent site pollution

Know your drains

Know where your drains go and make sure only rain goes into the stormwater system.

- Stormwater pipes collect rainfall from surfaces such as runways, taxiways, apron, roads and carparks. This water is channelled through grates into the stormwater system.
- Sewers collect waste primarily from the terminals, offices, businesses, shops and other buildings. Sewers' waste comes from sinks, laundries, showers, toilets and baths. This waste water and liquid trade waste from most industrial processes flows through the sewer network to the Mangere treatment plant.

To prevent pollution at the airport:

- Carry out regular maintenance of sewer lines (grease traps) and stormwater lines to prevent blockages and contamination due to overflow.
- Keep the airport clean and tidy by removing litter to prevent drains becoming blocked. Make one staff member responsible for keeping the site clean. Educate all staff on the importance of maintaining a high standard of house keeping, especially in outside areas.
- Be prepared to cope with a spill – have an emergency spill kit on site, know how to use it, keep it restocked after each spill and know Auckland Airport's emergency phone number if the spill is too big.
- Design storage, handling and transfer areas to reduce risk of spills.
- Wash vehicles and equipment in dedicated wash areas that don't allow waste water to run into gutters and stormwater drains. If you have vehicle and equipment wash areas, check with Watercater Services Limited whether you require a trade waste consent.
- Maintain equipment and vehicles to prevent oil spills and leaks.
- Dispose of unwanted solvents, waste oil and chemicals. **Do not** tip them down the stormwater drain.
- Sweep paths and driveways and other paved surfaces with a broom rather than with a hose.
- Control sediment during earthworks until vegetation re-establishes and remove sediment from earth-moving vehicles at dedicated wheel washing facilities.



An environmental incident

An environmental incident is the release of anything that has the potential to contaminate the environment e.g. air, water and soil. Airport-related examples include:

- spill of oil, fuel, effluent and wash water that could potentially drain into the stormwater system or into soil
- littering
- air pollution.

Stormwater management focuses on preventing contaminants from entering the environment.

Reporting an environmental incident

- for a **Minor** incident call Apron Operations Tower 256 8991 or extension 98991
- for a **Major** incident e.g. a significant fuel spill call the Incident Control Room 256 8777 or extension 98777.

Remember to describe as many details as possible about the incident such as:

- the location
- the size of the incident
- the type of contaminant

Environmental management

Good environmental management will improve your quality of life and your company's bottom line and ensure legal compliance.

Your bottom line

Good environmental management saves costs by:

- reducing the use of materials
- reducing the amount of materials that are wasted through spills and leaks
- reusing materials or wastes
- the sale or exchange of reusable or recyclable wastes
- positive publicity, improving shareholder confidence and consumer perceptions.

Poor environmental management can cost you money due to:

- product loss from leaks and spills
- disposal charges for hazardous waste
- charges by Auckland Council and other regulators
- legal costs, court costs and fines if convicted
- downtime for clean-up or injury
- clean-up costs of consultants and contractors
- bad publicity and poor shareholder confidence.

Legal compliance

Quality of life

Water is a key part of the environment. It's an extremely valuable resource and our use of it for everything from drinking to fishing can be threatened by pollution.

Clean streams, estuaries and harbours are essential to New Zealand's commercial and recreational fisheries. New Zealand businesses gain competitive advantages for our 'clean green' image. Tourism, recreation and other business-related opportunities rely on our environmental image.

Poor environmental management of harbours and waterways not only erodes our environment – it could threaten our lifestyle and income.

Auckland Airport, as the airport landlord, is charged with the sustainable management of the airport environment. However your cooperation is needed to ensure the conditions of Auckland Airport's stormwater discharge consent are not contravened.

Auckland Airport has a consent to discharge stormwater from the Airport on the proviso that only rainwater is discharged from the stormwater system into the Manukau Harbour. If contaminants such as detergent, fuels, oil, chemicals and litter enter the stormwater system and are subsequently discharged into the harbour, Auckland Airport and other subsequent involved parties such as you as an operator at the Airport can be held liable under the Resource Management Act 1991 (RMA).

The RMA penalises polluters by:

- Making polluters pay enforcement agencies for their time spent on the site and for the cost of pollution clean-up
- Imposing infringement notices and abatement notices
- Issuing enforcement orders
- Prosecuting polluters (fines and imprisonment).

Relevant sections in the RMA include:

Section 5, Purpose –

(1) The purpose of this Act is to promote the sustainability of natural and physical resources.

(2) In this Act, 'sustainable management' means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and their communities to provide for their social, economic and cultural well-being and for their health and safety while –

- a. sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonable foreseeable needs for future generations; and
- b. safeguarding the life-supporting capacity of air, water, soil and eco-systems; and
- c. avoiding, remedying or mitigating any adverse effects of activities on the environment.



Section 15 states that –

- (1) No person may discharge any
 - a. contaminant or water into water or
 - b. contaminant onto or into land in circumstances which may result in that contaminant entering the water
 - c. contaminant from any industrial or trade premises into the air or
 - d. contaminant from any individual or trade premises onto or into land – unless the discharge is expressly allowed by a rule in a regional plan and in any relevant proposed regional plan, a resource consent, or regulations.
- (2) No person may discharge any contaminant into the air, or into or onto land, from –
 - a. any place or

- b. any other source, whether movable or not, in a manner that contravenes a rule in a regional plan or proposed regional plan unless the discharge is expressly allowed by a resource consent or allowed by section 20 (certain lawful activities allowed).

Section 17 states that –

Every person has a duty to avoid, remedy or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of that person.

Section 340 states that –

Where an offence is committed against this Act by any person acting as the agent (including contractors) or employee of another person, that other person shall, without prejudice to the liability of the first-mentioned person, be liable under this Act in the same manner and to the same extent as if he, she or it has personally committed the offence.



Glossary

Auckland Airport – Auckland International Airport Limited.

Airport – the airport owned and operated by Auckland Airport at Mangere.

AES – Auckland Airport’s Emergency Services.

Airside – the area inside the security fence of the Airport which has controlled entry.

AOT – Apron Operations Tower – Apron staff control the movement of aircraft and vehicles on the apron. Report minor spills directly to AOT on 256 8991 or extension 98991.

Apron – the hard surface area in which the aircraft park, unload and reload passengers and cargo as well as refuel, refill water, remove wastes and carry out maintenance on aircraft.

Bunding – a constructed impervious embankment or wall, either permanent or temporary, which may surround storage areas, drains etc which is designed to prevent the migration of any spill or leak to the surrounding drains or the ground.

Environmental Incident – the release of anything that has the potential to contaminate the airport environment e.g. air, water and soil.

ESS – Auckland Airport’s Engineering Support Services.

Hazardous Material – materials which, without adequate safeguards, may contaminate and harm the environment. This includes dangerous goods and many industrial chemicals.

ICR – Auckland Airport’s Incident Control Room, 256 8777 or extension 98777, located in the Operations building. ICR co-ordinates Auckland Airport services such as AOT, ESS, AES Manager, Environmental Planner etc and non-AA services such as NZ Fire Service and local authorities that may need to be involved with a spill. ICR receives and carries out commands from the Fire Chief at the spill.

ITB – International Terminal Building

Landside – that portion of an airport not designated airside and to which the general public normally has free access.

Material Safety Data Sheet – contains the information on the chemical constituents of a product and their properties, health hazard information, first aid, precautions for use, disposal information and advice to doctors. This information will be requested in the event of a major spill.

NZFS – New Zealand Fire Service

PPE – Personal Protective Equipment – includes gloves, coveralls, goggles and boots which should be worn when attending a spill.