

Best Management Practice

General site management and housekeeping



Issued by Auckland Council, July 2015

If you have any questions about this procedures sheet contact Auckland Council on 09 301 0101.

1. Why BMPs?

Auckland Council is committed to providing industry leadership and working together with our Vendors to improve environmental performance.

The Auckland Council has developed a series of 'Best Management Practices (BMPs)' for common stormwater maintenance and project related activities.

The BMPs are targeted at construction and field crews and provide clear step-by-step guidance on how to promote best environmental practice, improve environmental performance, and importantly, minimise risks and adverse environmental effects. The BMPs provide guidance on accepted site practices and environmental controls for common utilities related activities.

2. Play your part and meet your legal environmental obligations

It is important that you take your own steps to minimise the environmental risks and adverse effects associated with your activities.

You are responsible for ensuring your activities comply with relevant environmental legislation such as the Resource Management Act (RMA) 1991.

Section 15 of the Act prohibits unauthorised discharges of contaminants to air, land and water unless authorised by a resource consent or a rule in a plan. A contaminant can be considered anything other than clean rainwater. Put simply, this means that nothing but clean rainwater is to be discharged onto the ground, into stormwater drains or into natural waters, such as streams or lakes.

Section 17 of the RMA makes every person on site (including sub-contractors) responsible for ensuring their own actions do not cause the pollution of the environment.

Also please be aware that under the RMA, the Auckland Regional Plans, and Unitary Plan all works are also required to comply with any relevant Permitted Activity criteria.

Polluters face substantial penalties including imprisonment for a maximum term of 2 years or a fine of up to \$600,000, with a further \$10,000 for each day the offence continues. Environmental Infringement Notices are fines of up to \$1000, which may also be issued.

3. Why manage a construction site?

Stormwater systems must only drain rain

There are many types of activities that occur on sites, these can include surface cutting, trenching, directional drilling, earthworks and excavations, dewatering, works within potentially contaminated sites, and works in and around trees.

These activities all pose environmental risks that can result in discharges of contaminants to receiving

environments and adverse effects on habitats, eco-systems and our communities. Contaminants can include sediment, highly alkaline water from surface cutting, hydrocarbons and other hazardous substances from potentially contaminated sites, and polymers from directional drilling.

4. How to use the BMPs

The BMPs have been developed for a number of common stormwater maintenance and project related activities.

It is important to note that while the BMPs present a range of accepted best practice methods, they are an information guide only. There are many different ways of minimising environmental risks and adverse effects of construction related activities. It is up to you to work out what may be appropriate for the scale and nature of your activities, the site and type of contaminants.

Remember, BMP recommendations may not be complete or appropriate for all situations, and the person doing or arranging the work remains solely responsible for making their own assessments and doing the work properly, safely and in compliance with all laws and regulations.

5. General site management and environmental controls

Each individual BMP provides guidance on accepted site management practices and environmental controls for the specific activity.

Use the following site layout illustration to help identify the range of activities that may occur on your site. The key points to note are summarised below.

Forward planning – before you start works

Regardless of the activity, there are a number of things you should do before starting works. These include:

- Identify the potential environmental risks and define how these can be mitigated or reduced through site practices or environmental controls.
- Check the lay of the land and decide where any run-off is likely to go. Pay particular attention to receiving environments. Steeper sites can be more difficult to manage and may require a higher level of control.
- Have a plan to deal with incidents and emergencies and keep a spill kit on site.
- Identify a person who will be responsible for ensuring environmental practices and controls are followed and implemented.
- Ensure employees are trained and educated.
- Put in place diversions (e.g. bunding, sandbags etc.) at stages uphill of the site to divert clean stormwater around the works. This will help to reduce the amount of water that you have to manage.

Key to site diagram and key points to note:

The following provides a summary of the key points to note when undertaking common activities.

Remember the following specific practices should always be implemented in conjunction with the general site management practices and environmental controls listed above.

Always refer to the specific BMP prior to undertaking the activity.



- Install stormwater catchpit protection measures as a form of secondary control (refer to the Catchpit Protection BMP for more help). Often multiple catchpits will need to be protected.
- Remember that catch-pit protection measures are only to be used as secondary control devices. Correct site practices and environmental controls will reduce the reliance on these secondary controls.

Dewatering

Should dewatering occur on site:

- When possible, allow the sediment to settle out of the water column before dewatering.
- When decanting or using a pump to dewater, skim from near the surface of the water to avoid suction of sediments from the bottom of the excavation. A float will help you to do this.
- Consider the site constraints; the amount of water that you are trying to manage and the amount of suspended sediment; the nature of the site you are working in; and any other relevant factors, to determine which dewatering practice is most appropriate.
- Dewatering practices can include:
 - to a grassed or vegetated area
 - to the stormwater system with the appropriate level of environmental controls in place
 - for removal off site and
 - to a settlement and detention device.

- Using hay bales as a filter is not an accepted best practice and will not work.
- Remove any remaining slurry along with excess spoil off site, or to a contained area such as within a silt fence.

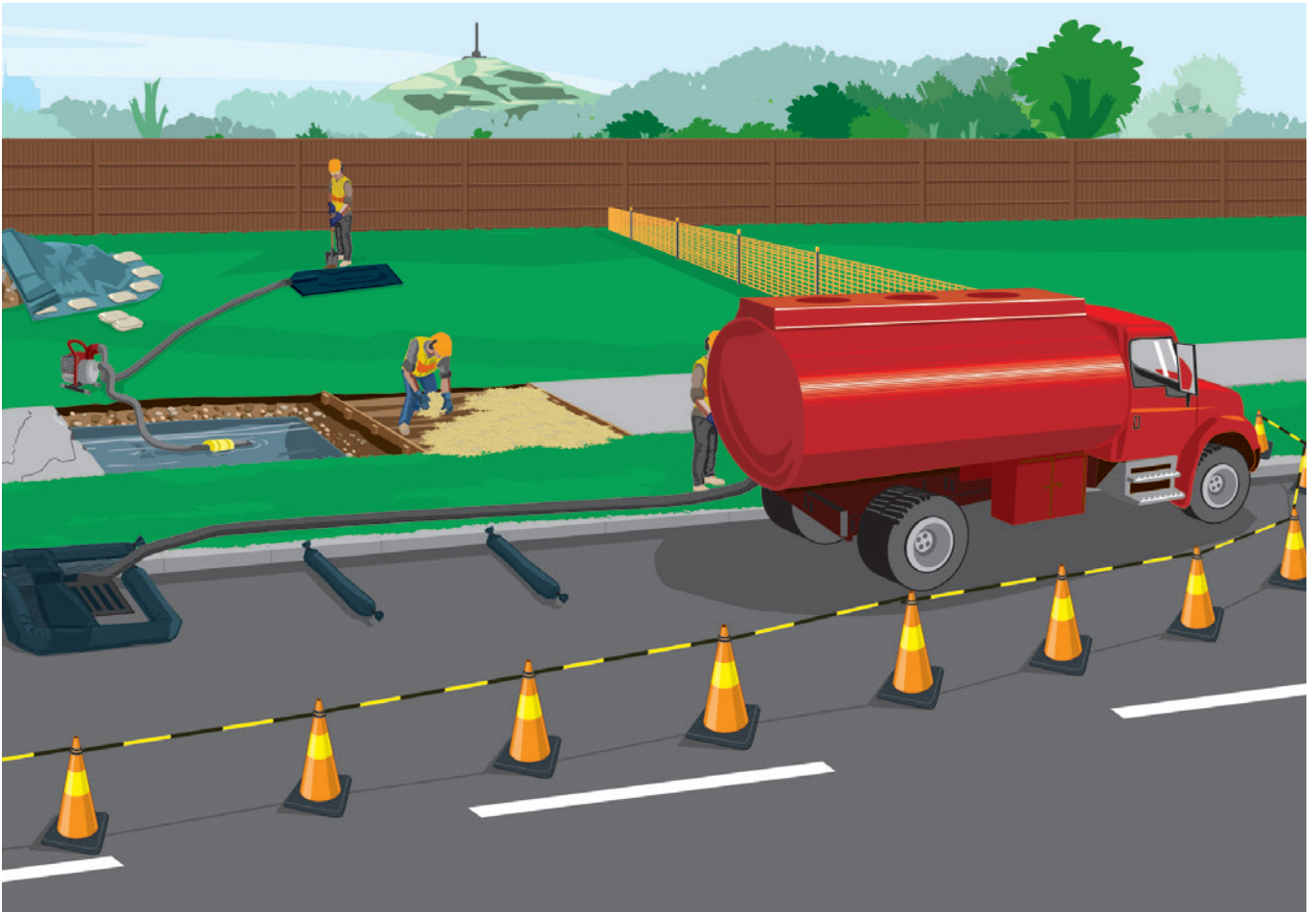
Trenching

When undertaking trenching on site:

- Check the weather forecast and try to avoid opening trenches when there is a risk of high rainfall.
- Maintain a grass berm between trenches and the roadside when one is present.
- Working spoil should be placed upslope of the trench so that any runoff will flow into the trench.
- Avoid stockpiling of soil and spoil on site if at all possible.
- When working in close proximity to receiving environments or on steep sites, install down-slope sediment controls, such as silt fences or sediment bunds.
- Ensure sound dewatering practices are followed should dewatering need to occur (refer to the Dewatering BMP for more help).

Potentially contaminated sites

You should have been advised that the site you are working on is potentially contaminated. If you are concerned that the site may be contaminated and haven't received any instruction or information, contact the Stormwater Unit's Resource Management Team or a Contaminated Land Specialist.



Any works to be carried out within potentially contaminated land will need to be well planned out, and will be typically authorised by regulatory controls, such as permitted activity rules or resource consents.

We don't always know the locations of all potentially contaminated sites and you will need to be prepared to stop work immediately if you come across any obvious signs of contamination. Keep a look-out for anything unusual, such as strangely coloured and textured soil and fill material, oily sheens and floating slicks, and be aware of unexpected odours.

When undertaking works in potentially contaminated sites:

- When possible, excavations are to be undertaken during dry weather.
- Identify and prepare an area on site which could act as a temporary store for any unforeseen contamination. This area should be contained and isolated from receiving environments.
- Avoid stockpiling of potentially contaminated soil and spoil on site if at all possible.
- Excess soil should be loaded directly onto secure trucks, covered and transported to an appropriately licensed facility.
- Any loose soil on the side of the trucks and wheels should be brushed off before the trucks leave the site to minimise sediment deposits on the road.
- Accumulated water / groundwater should be managed appropriately. It should be treated on

site, or transported off-site to an appropriately licensed facility, unless otherwise stipulated in a resource consent.

- Regularly sweep up any dust and dispose of it appropriately so that it will not become airborne or enter surface water.
- For large sites or work areas, especially when working close to a watercourse, install a silt fence around works area and stockpiles.

Catchpit Protection

Catchpit protection is only to be used as a form of secondary control.

Reduce your environmental risks and reliance on catchpit protection as secondary controls by implementing general and activity specific site management and environmental controls before, during and after works.

There is no one solution to catchpit protection.

Work out what you are trying to achieve / what you need the catchpit protection to do – do you need to completely protect (block) the catchpit, for instance when you are surface cutting? Or do you need to allow water to pass through, filtering and trapping sediment?

Then determine what type of approach or product is appropriate for your site, activities and contaminants.

Implement catchpit protection then regularly assess, inspect and maintain catchpit protection controls, along with other site controls, that you have put in place.

Spills and Emergency Management

Be prepared should a spill occur on site:

- Have a site specific spill response plan and keep a fully stocked spill kit on site.
- Make sure all staff are well trained in spill response and emergency management procedures.
- Identify and communicate a designated refueling area away from stormwater drains and surface water.
- Minimise the amount of hazardous substances held on site and ensure they have secondary containment as a backup.
- Make sure all storage containers are clearly labeled, fit for purpose, free of leaks and stored in a safe, secure area.
- Should a spill occur, follow the following steps:
 - be safe
 - stop the source (if it is safe to do so)
 - protect stormwater
 - notify
 - clean-up and
 - restock and review.
- For large spill or spills that have reached receiving environments, call the Auckland Council **24 Hour Pollution Hotline** on 09 377 3107.

Monitoring and maintenance – during works

It is also important that during works you:

- Stage works where possible to limit exposed soils or areas where stormwater or groundwater may accumulate.
- Stabilise and reinstate disturbed areas and hard surfaces, such as exposed soils, footpaths and driveways as you go.
- Regularly assess site practices and environmental controls to make sure that they are mitigating or reducing environmental risk to an acceptable level.
- Ensure that no discharge is occurring. Adjust practices or controls if they are not working efficiently.
- Regularly inspect and clean out sediment controls and secondary catchpit protection.
- Regularly sweep up any sediment or dust and dispose of it appropriately so that it will not become airborne or enter surface water.

At completion of works

While you may have completed your works, a site left in a poor state can still cause discharges and adverse environmental effects. Always remember to:

- Stabilise and reinstate disturbed areas and hard surfaces, such as exposed soils, footpaths and driveways as soon as possible.
- Remove environmental controls once site is stabilised.
- Inspect stormwater catchpits and remove any contamination associated with site works.

6. Useful links and information

- Go to aucklandcouncil.govt.nz and search for 'pollution', here you will find a range of helpful information and links to the range of pollution related resources and educational materials.
- Refer to the following Stormwater Unit BMPs:
 - Dewatering
 - Trenching
 - Potentially contaminated sites
 - Spills and emergency management
 - Sediment and dust management
 - Concrete and asphalt
 - Site stabilisation/reinstatement
 - Catchpit protection.



If a discharge occurs that has the potential to, or has entered the stormwater system or natural receiving environments, contact the Auckland Council 24 HOUR POLLUTION HOTLINE on 09 377 3107 immediately.

Find out more:

For access to this BMP and to find the other BMP information sheets, visit aucklandcouncil.govt.nz/stormwater

Important Notice: ©Auckland Council 2011. This Best Management Practice (BMP) sheet is an information guide only and is not technical or compliance advice. Its recommendations may not be complete or appropriate for all situations, and the person doing/arranging the work remains solely responsible for making their own assessments and doing the work properly, safely and in compliance with all laws and regulations.