Construction Sites – Environmental Management

Construction related activities can cause significant environmental impacts and result in lasting degradation to waterways and the surrounding environment if not managed properly. This is a reminder of your responsibility to implement and maintain appropriate environmental controls throughout your construction project to protect our environment.

What is environmental site management?

Environmental Site Management means having effective controls in place to manage the harmful by-products of construction activities. Without effective controls, materials such as sediment, litter and pollutants can leave the construction site, enter stormwater drains, flow into our lakes and rivers and harm the environment.

Here you'll find advice to help you mitigate any possible adverse environmental effects that may be generated as a result of your construction-related activities.

Remember: Failing to meet environmental management requirements is an offence and may result in a fine.

Tips for managing your site

Use best practice to protect the environment and your project.

Roadside occupation requires **Licence to Occupy**, applications can be lodged via the online **Community Portal** or emailed to **engineeringapprovals@qldc.govt.nz**

Key to site diagram

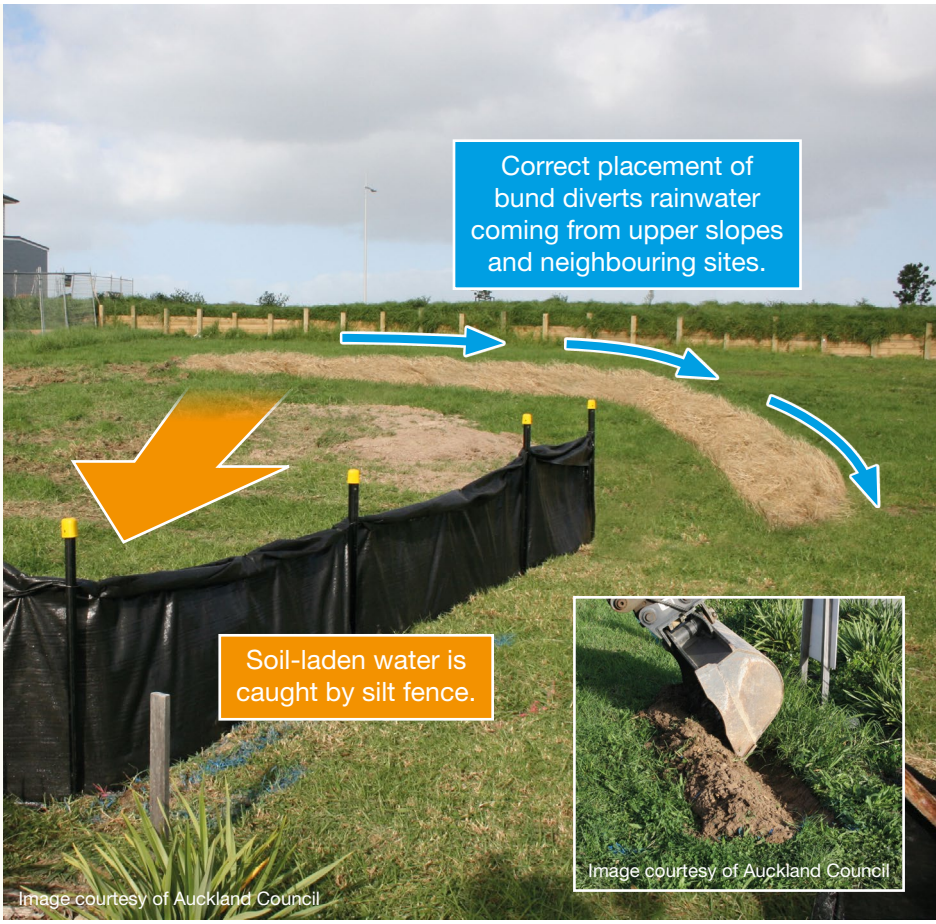
1. **Clean water diversion**
2. **Stabilise construction entranceway**
3. **Silt fences**
4. **Minimise exposed areas and cover stockpiles**
5. **Drain/catchpit protection**
6. **Dewatering**
7. **Isolate concrete, paint and other chemical waste on site**
8. **Maintenance and inspections**
9. **Manage litter on site with a covered skip bin to prevent litter and debris from leaving the site**

Advice Note: During dry and windy conditions, consider if your site requires dust management.

1 Clean water diversion

Diverting clean water away from your site reduces flooding and limits the amount of contaminated runoff that must be managed.

Clean water can be diverted using shallow trenches formed with a digger, or by installing bunds - such as sand or earth bunds, or flexible bunds (for example, filter socks) - to redirect runoff around exposed areas. Diversion measures should be correctly placed and maintained to prevent clean water flowing through construction zones.



2 Stabilise construction entranceway

Stabilising your site entrance helps prevent sediment and mud from being tracked onto nearby roads by trucks and heavy machinery, while also maintaining safe and reliable access for contractors. Use Geotextile fabric lined with AP40-65 aggregate, free of silts.

Best practice: Geotextile with aggregate and/or rumble strips.

3 Silt fences

Silt fences help prevent sediment laden water from leaving your site by trapping sediment on site. To be effective, they must be installed correctly and maintained throughout the duration of your project.

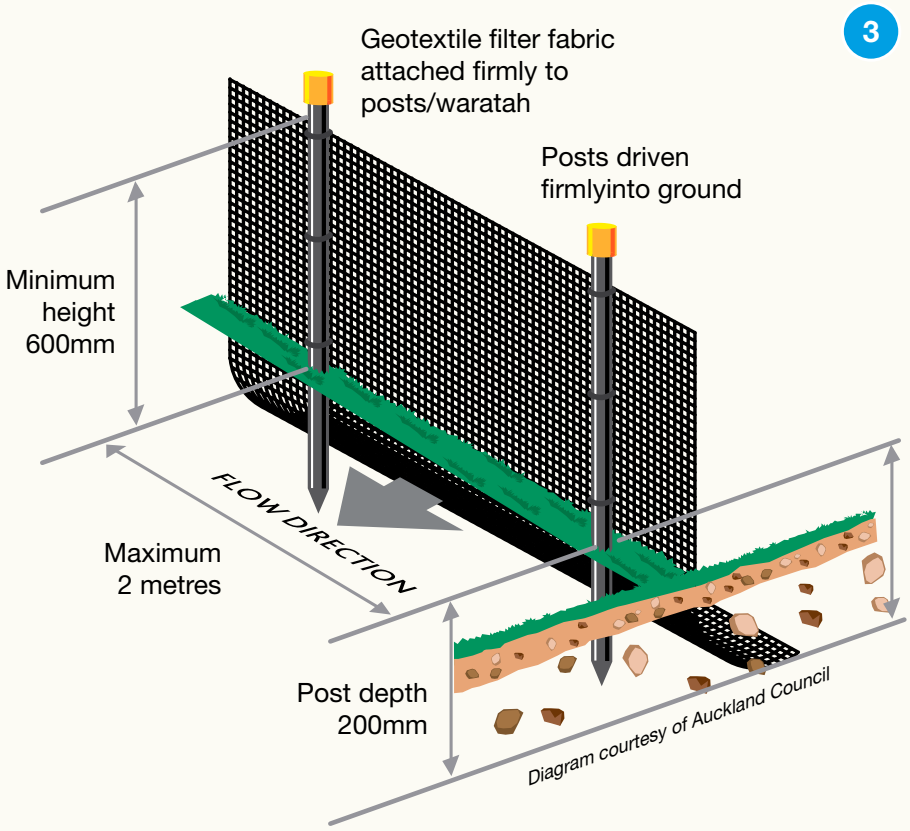


Image courtesy of Auckland Council

4 Minimise exposed areas and cover stockpiles

Keep as much vegetation cover as possible, and do your work in stages. Covering exposed areas with measures such as coconut matting, tarpaulins, or grass seeding can help stabilise the surface area and prevent sediment from leaving the site.

Image courtesy of Auckland Council

5 Drain/catchpit protection

Supports other sediment control measures on your site. Installing silt socks and catchpit filters helps slowwater flow, allowing sediment to settle out.

Note: No sediment should leave your site. Drain and catchpit protection is the last line of defence before sediment enters stormwater networks, lakes and rivers.

Research by WAI Wānaka has shown that urban development and land-use change can increase sediment and contaminants entering urban streams and lakes. Find out how you can take action beyond your site by visiting **waiwanaka.nz/adopt-a-drain** and help protect local waterways from stormwater pollution.

Image courtesy of Deanna Gerlach

Image courtesy of Auckland Council

6 Dewatering

Need to pump dirty water? Make sure it is treated before it leaves your site.

Water removed from footings, trenches, and pile holes must be managed carefully to prevent it entering stormwater drains.

Pump water through a silt sock or discharge it onto a stabilised surface (such as a grassed or metalled area) above a silt fence to allow sediment to be filtered out.

8 Concrete & chemical waste

Never dispose of concrete, slurry, or wastewater into stormwater drains, as these materials are highly toxic and can cause serious environmental harm. Contain and divert wastewater onto unsealed ground well away from drains, and use bins or mats to capture any spills.

Where required, use pumps, wet vacs, or sucker trucks to safely remove wastewater from site. A designated washdown area should be established and directed to drain onto unsealed ground, away from all stormwater systems.

9 Maintenance and inspections

Regularly inspect and maintain sediment controls to ensure they remain effective throughout construction. Check controls often, especially after rainfall, and repair or replace them as needed. Once construction is complete and the site is fully stabilised, remove all sediment controls.

Some sites have limited space and may not suit all control types. Plan ahead by monitoring weather forecasts and ensuring suitable materials are available on site. Install additional measures as required to prevent sediment leaving the site and entering waterways.

Do your part to keep our lakes and rivers clean, clear, and safe.

10 Manage litter on site

Construction sites must manage waste and litter to prevent it leaving the site and entering stormwater systems, roads, or neighbouring properties.

Keep skip bins tidy, securely covered, and not overfilled, particularly in windy or wet conditions. Covers help prevent lightweight materials such as packaging, plastics, insulation, and off-cuts from being blown or washed off-site. Ensure waste is correctly separated and regularly remove litter from around bins and site entrances.

Effective waste management helps protect waterways, reduce nuisance effects, and meet environmental and litter control requirements.

Dust suppression

During drier weather, dust can become an ongoing issue.

You can help minimise dust by regularly watering exposed areas, covering soil and stockpiles, or sowing grass seed to stabilise bare ground. Where possible, water collected or recycled from your site can also be used for dust suppression.

During high wind conditions, cease work if watering exposed areas is not effectively reducing the amount of dust being generated.

The benefits of appropriately managing your site

Keep your project on track.

Meeting environmental requirements helps avoid costly delays, enforcement action, and time-consuming rework. Poor erosion and sediment control can lead to significant clean-up costs and project setbacks.

Protect the environment we all value.

The natural beauty of the Queenstown Lakes District is one of our greatest assets. Everyone working on site has a responsibility to prevent pollution and protect local waterways, landscapes, and ecosystems.

Show leadership and accountability.

Strong environmental practices demonstrate to the public, clients, and regulators that your company takes compliance seriously and is committed to minimising the environmental impacts of its work.

What happens next?

You are responsible for managing any adverse environmental effects arising from your development. If controls are not properly implemented or maintained, the responsible parties will be held accountable and enforcement action may be taken. QLDC Officers will be actively monitoring construction sites to ensure appropriate environmental measures are in place.

The public and Council expect strong environmental management on building sites. Expectations for managing environmental controls during construction have increased, and it is important to understand and apply best-practice environmental controls. For more complex projects, you may need to engage a qualified environmental professional to help ensure your site is appropriately managed.

What does the law say?

Allowing sediment, waste and/or litter to be deposited off your building site is an offence under the Resource Management Act 1991 and/or the Litter Act 1979.

Any construction or development work that creates a nuisance to the public or causes unauthorised discharges to the environment is against the law. This includes dust, noise, litter and any pollution entering the stormwater systems, streams and lakes.

Property owners, developers, and contractors are all responsible for understanding and meeting these legal requirements. Failure to comply may result in:

- infringement fines up to $600 for an individual and up to $1,200 for a company
- abatement notices (with associated fines if abatement notices are not complied with)
- prosecution with fines of up to $1,000,000 for an individual and up to $10,000,000 for a company.

It is now illegal for insurance policies to cover any Resource Management Act fines and infringement fees.

For further information on Environmental Management practices, you can check out QLDC's Guidelines for Environmental Management Plans:
www.qldc.govt.nz/practice-notes#emp_notes

Image courtesy of Auckland Council

There are **three different categories** for Environmental Management Plans (EMP) which are based on the anticipated level of environmental risk for each project. The table below outlines the three categories, how they are determined and the general details required in the EMP.

Environmental Risk Level for EMP Category	Characteristics of Risk Level	EMP Detail Required
LOW	» Less than **2500m² disturbed surface area open at any one time;** and » Less than **15% (6.6 degrees) slope;** and » Earthworks **not located within 50m of a Sensitive Environmental Receptor;** and » Controls installed and maintained in accordance with **Template EMP** including measures to ensure sediment does not enter the stormwater network.	**Complete Short Form EMP template on the following pages.**
MEDIUM	» Greater than **2500m² disturbed surface area open at any one time;** or » Where a **Sensitive Environmental Receptor within 50m of the site or specific environmental adverse effect has been identified.** All projects not meeting the characteristics of 'Low Risk' (above) and 'High Risk' (below).	EMP prepared by **Suitably Qualified and Experienced Person** – and selected Administrative requirements and selected Operational requirements for relevant environmental elements (as outlined in the Operational Requirements of this document).
HIGH	» Projects which have **greater than one hectare of land exposed;** or » Projects which have **greater than 2500m² disturbed surface area open at any one time** and include any of the following characteristics: - Project working **within or discharging to Sensitive Environmental Receptors** such as a Waterbody or stormwater network; - Topography where any slope is **greater than 15% (6.6 degrees);** - Soils with **high erodibility** (e.g. silts or other soil types with high silt content) as determined by geotechnical advice.	EMP prepared by **Suitably Qualified and Experienced Person** – and all Administrative and Operational requirements for all environmental elements (as outlined in the Operational Requirements of this document).

Who can I talk to?

If you have any questions or need further advice, please do not hesitate to contact QLDC on **03 441 0499** or email **rcmonitoring@qldc.govt.nz**

QUEENSTOWN LAKES DISTRICT COUNCIL

Environmental Management Plan for LOW Risk Sites (form)

Project address

QLDC consent numbers (if applicable)

RM

BC

Brief project description

Nearest Sensitive Environmental Receptors (e.g stormwater network, waterways)

Purpose

This document is intended for use on construction sites that are deemed, through resource consent, to be of LOW environmental risk. It is designed for the construction industry and provides guidance on construction environmental management for small-scale projects with LOW environmental risk.

The document serves as a guide for operators to help manage and control environmental effects, including stormwater, erosion and sediment runoff into nearby waterways and stormwater infrastructure, as well as dust, noise, litter, and other construction-related effects on neighbours and the environment.

Roles and responsibilities

SITE SUPERVISOR

Name

Phone number

Email address

ENVIRONMENTAL REPRESENTATIVE

Name

Phone number

Email address

Inductions

All workers on site shall be briefed on the control measures outlined in this Environmental Management Plan. This should include and outline of the rapid stabilisation and spill response procedures. A copy of this Environmental Management Plan shall be kept on site at all times.

Environmental incident notification and reporting

Any environmental incidents which may result in an adverse effect on the environment or community shall be notified to the Regulatory Team at Queenstown Lakes District Council within 12 hours of the incident occurring. Any spills or off-site release of a hazardous substance shall be notified immediately to the Pollution Hotline at Otago Regional Council.

QLDC Regulatory Team: 03 441 0499 **ORC Pollution Hotline:** 0800 800 033

Environmental inspections

The Environmental Representative will inspect all control measures at the start of each working day, and ensure that all measures are in good condition and suitable for the works. Inspections will also be undertaken where adverse weather events are forecast. The site should always be suitably stabilised to limit erosion and sedimentation, any potential spills, discharges and deposition of waste from site.

Operational requirements

Site set-up
The site will have the following measures installed. These need to be considered when planning site set out:

- [ ] Parking area
- [ ] Stabilised access point
- [ ] Fencing
- [ ] Hazardous substance storage facility
- [ ] Waste collection facility
- [ ] Spill kit
- [ ] Wash down facility (mud from tyres)
- [ ] Concrete wash out bay

Further comments/other measures

Drainage, erosion and sediment control
Under the Queenstown Lakes District Plan, no discharge of water holding sediment is allowed off-site, unless you have a resource consent permitting this activity. Consider your site and your works: what's the best tool for the job, to make sure your site is stabilised at all times. The site will have the following measures installed. These need to be considered when planning site set out:

- [ ] Water diverted around site
- [ ] Minimise area of exposed soil
- [ ] Bunds and/or catch drains
- [ ] Sediment retention device
- [ ] Stabilisation following earthworks
- [ ] Stormwater inlets protected (closed off or sediment sock)
- [ ] Sediment fences
- [ ] Stockpile management

Ongoing management of erosion and sediment controls

- [ ] E&SCs to be inspected daily, prior to heavy rainfall and following heavy rainfall
- [ ] E&SCs are always correctly installed and suitable for the planned works
- [ ] Sediment deposits removed from E&SCs following storm events to ensure capacity for next storm

Rapid stabilisation procedure
In the event of heavy rainfall or significant weather event forecast, the site can be quickly stabilised by:

Erosion and sediment control plan
An example of this can be found at the end of this document. This needs to demonstrate overland flow paths, locations of controls (sediments fences, catch drains, sumps, etc), and stormwater outlet point.

Draw the ESCP here or attach it separately.

Disclaimer: It is noted that these are for the operators own use and Council accepts no responsibility for failure of these plans in the case of any environmental incidents. This document is intended as a guide for operators and it is recommended that if the operator is unsure of how to manage a potential environmental effect they should seek the advice of an appropriately qualified environmental professional.

Dust management
The site will have the following measures installed. These need to be considered when planning site set out:

- [ ] Irrigators for soil dampening covered/stabilised
- [ ] Stockpile heights minimised
- [ ] Longstanding stockpiles
- [ ] Hand watering
- [ ] Progressive stabilisation
- [ ] Soil binders
- [ ] Geotextiles device

Ongoing management of dust

- [ ] Dust generating activities avoiding during windy weather (where possible)
- [ ] Stabilise site when works untended for more than 5 calendar days

Further comments/other measures

Noise and vibration management

- [ ] Noisy activities to be undertaken between 8.00am–5.00pm, Monday to Saturday inclusive
- [ ] Letter drops to neighbours during any unusually loud or noisy activities outside of 8.00am–5.00pm, Monday to Saturday inclusive
- [ ] Noise dampening devices utilised and avoidance of loud slamming to be avoided where possible

Further comments/other measures

Cultural heritage management: Accidental discovery protocol
In the event that an archaeological site (defined as a place associated with pre-1900 human activity, regardless of cultural association) is discovered during construction, works onsite will cease immediately and the accidental discovery protocol will be followed (See QLDC Guidelines for Environmental Management Plans).

Further comments

Chemicals and fuels management
The main environmental concern for fuel and chemical management is avoiding spills entering a watercourse or groundwater.

- [ ] Containers closed and appropriately stored at all times when not in use
- [ ] Spill kit onsite at all times and restocked immediately following any spills

Spill response procedure

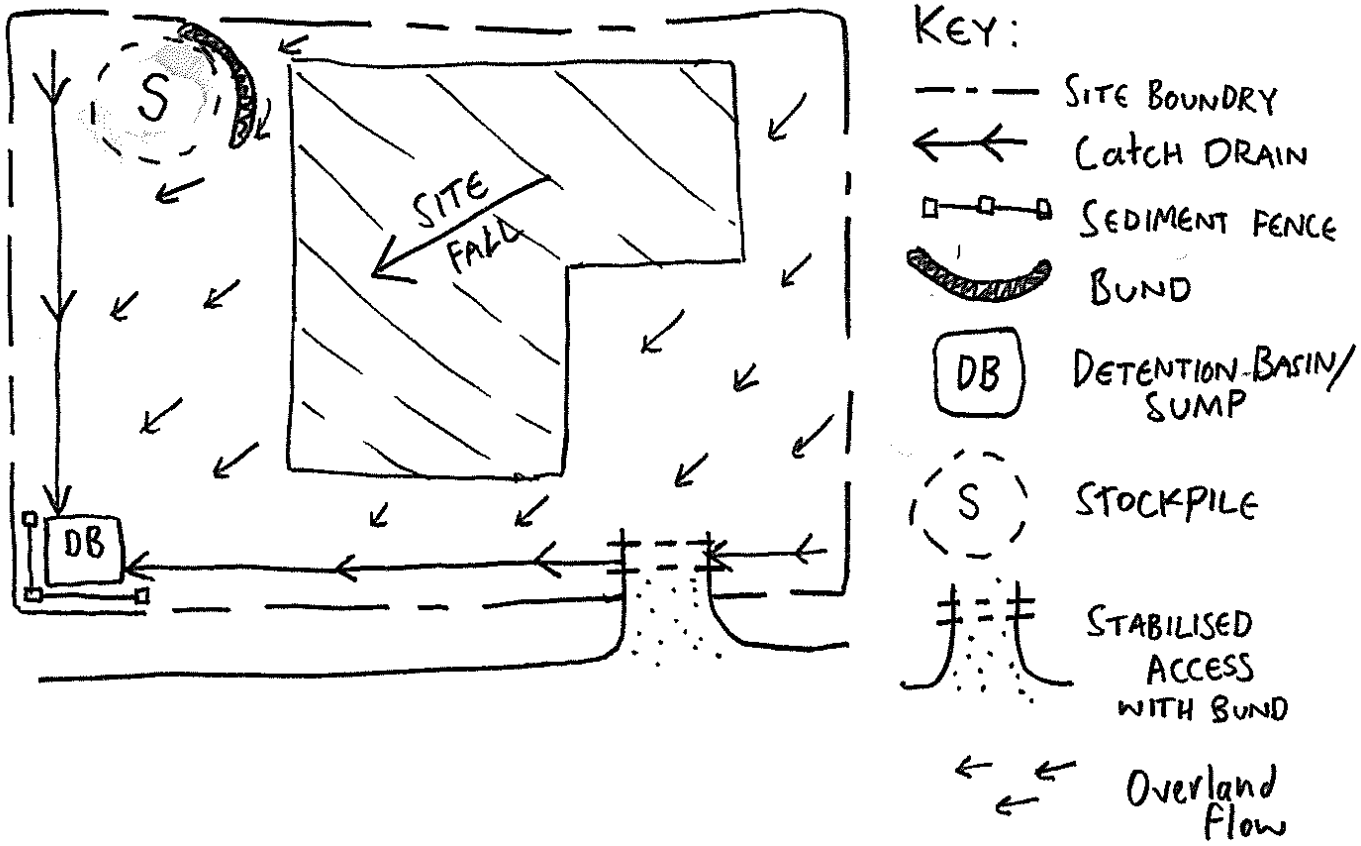
Further comments/other measures

Waste management
The main environmental concern for fuel and chemical management is avoiding spills entering a watercourse or groundwater.

- [ ] Appropriately-sized bin located onsite with lid
- [ ] Site cleaned free of rubbish at the end of each day
- [ ] Waste regularly removed from site such that bins are not overflowing
- [ ] Adopt the Waste Hierarchy: **www.wastenothing.co.nz/our-zero-waste-journey/waste-hierarchy**

Further comments/other measures

Example of an erosion and sediment control plan



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