

# Auckland Council Small Sites Project Update

Graham Jones

17<sup>th</sup> November 2016

# Usual small site issues, mud mud glorious mud ?



# Concrete







# Infrastructure damage





















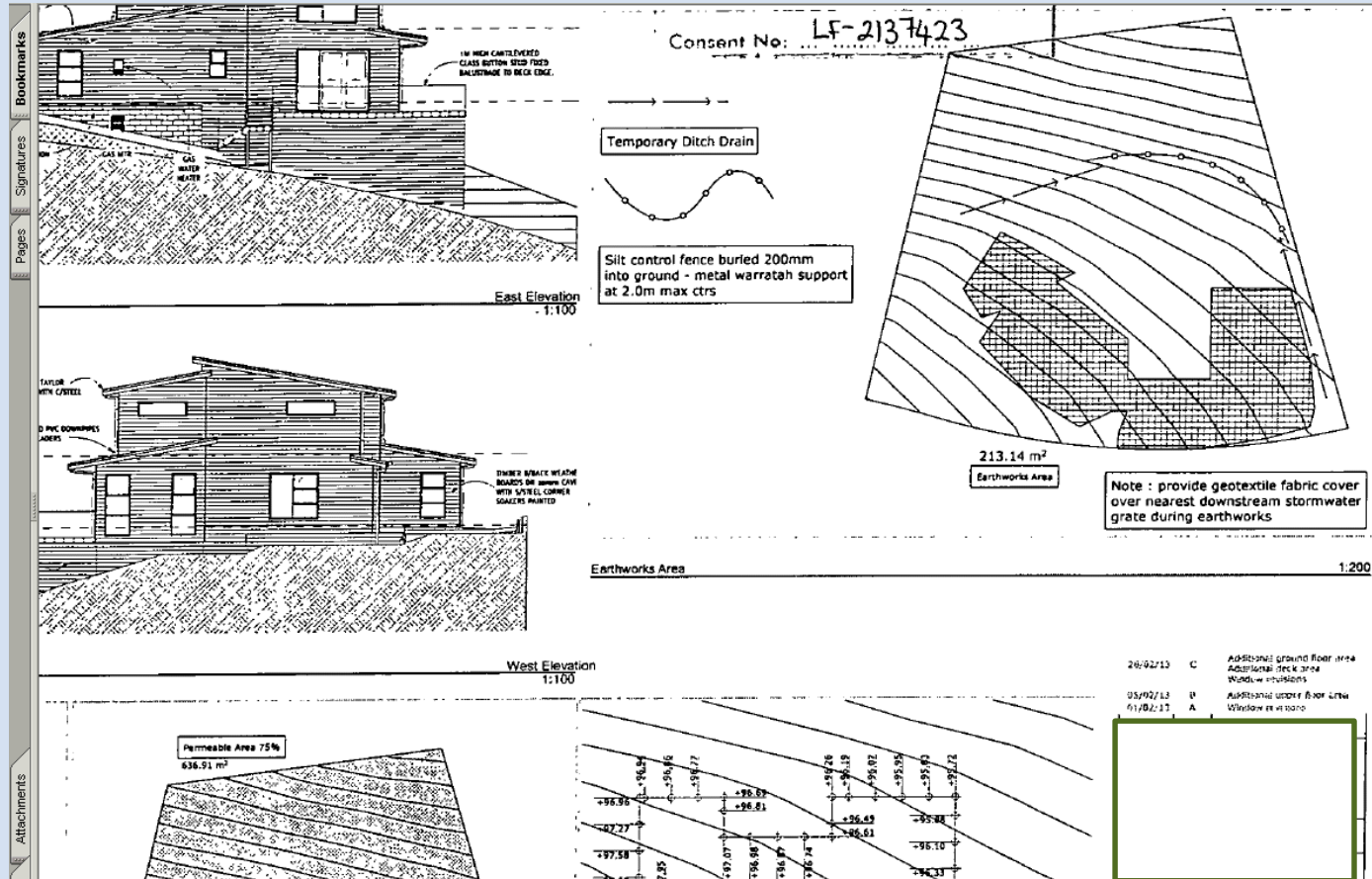


# Developers :Lack of knowledge





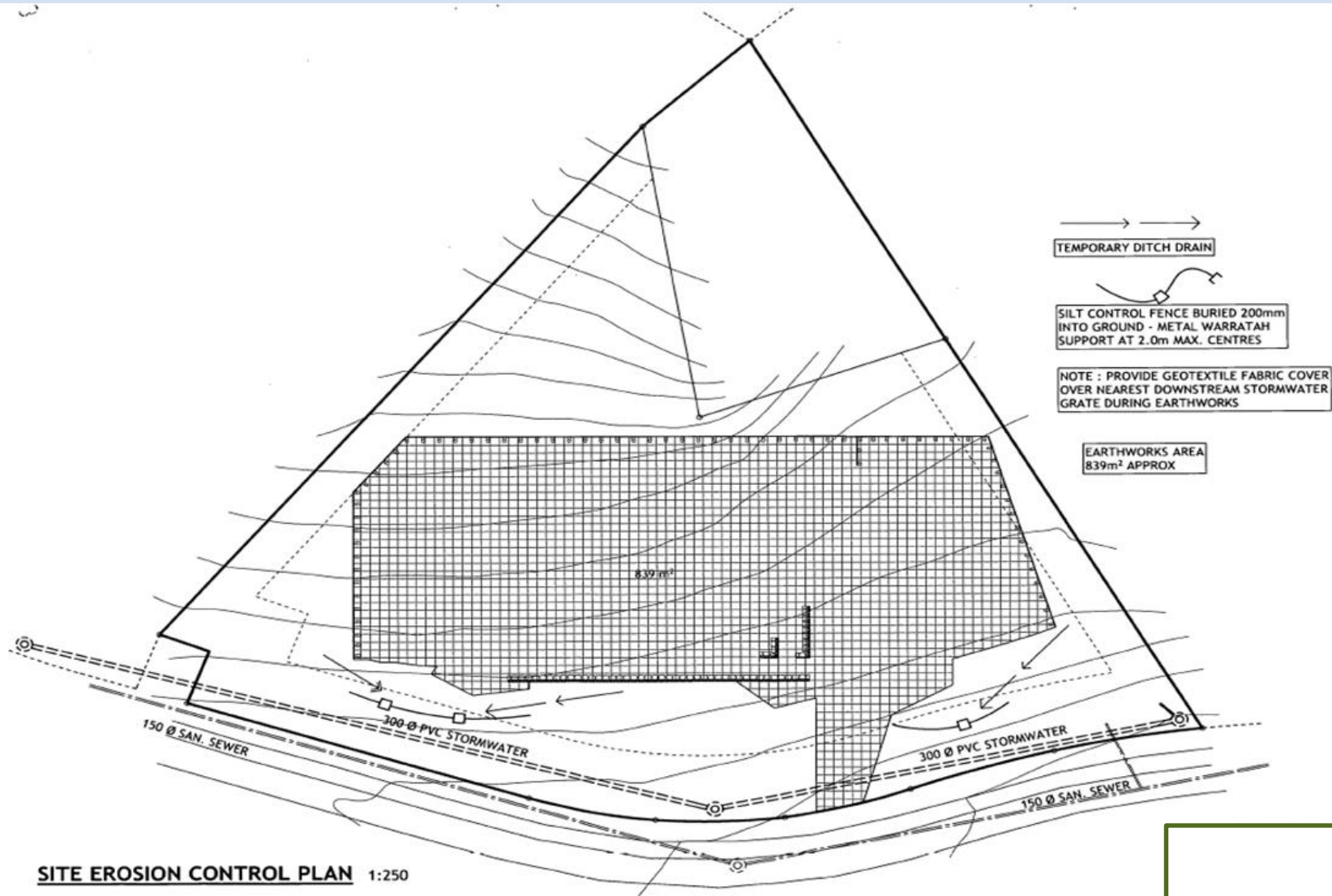
# Typical small site plans



# The reality









# The reality :      What they did...



# Add wet weather... Result!





# Long bay

- Work closely with TPG
- Pre installed silt fences
- Install on site signage
- Regular catch ups with Development team
- Monitoring staff attend sub-division meetings



# Pre installed silt fences

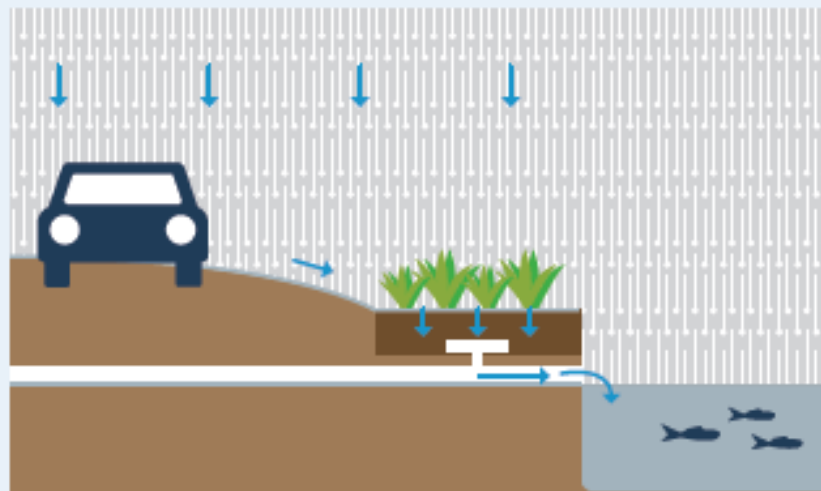






# Attention: I am a rain garden

My job is to filter stormwater, preventing harm to our coastal environment and our fisheries.



I can be easily damaged by:

- driving vehicles on me
- construction site sediment
- pollution.

► Find out more: phone 09 301 0101  
or visit [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz)



# Building on small sites

Five easy ways to protect the environment during your build



1 Silt Fence



2 Stabilised Entrance



3 Wash-down area



4 Temporary downpipes



5 Stormwater Protection

► Find out more: phone 09 301 0101  
or visit [aucklandcouncil.govt.nz](http://aucklandcouncil.govt.nz)

# Builder's enviro guide

Preventing pollution from  
your building project

► Find out more: phone Auckland Council on 09 301 0101  
to report a pollution problem or ask for assistance and advice.





# Contents image

## Why compliance matters

Auckland's appeal and value as a location to live and work depends upon the quality of its environment. Our clean beaches, bountiful marine habitats and native bush are at risk from construction activities that pollute and degrade our environment.

### Check your consents

Ensure you have the right consents before starting work. Common activities that require consent include:

- erecting or extending a new building or structure
- subdividing land
- altering a building to accommodate one or more new households
- increasing the extent of impermeable surface cover on the site
- carrying out earthworks over an area of more than 150 square metres
- work on, under or near a protected tree
- plumbing/drainage-related works
- constructing a vehicle cross-over.

It takes more time to deal with an abatement than ask council before works begin, so check with us what you may require.

## The stormwater system

The stormwater system is the network of pipes, streams, overland drains and other infrastructure that takes rain water from the catchment area and prevents routine flooding.

## The law and what it means for you

Any construction or development work that creates a nuisance to the public or causes unauthorised discharges to the stormwater system, streams and the sea, is against the law.

This includes dust, noise, litter and any pollution entering the stormwater system, streams and the sea. It does not matter if your project does not need a resource consent – it must comply with the district or regional plan rules, bylaws and the Resource Management Act 1991.

Failure to do so can result in:

- infringement fines up to \$1,000
- abatement notices
- prosecution with fines of up to \$600,000.

The following pages will help you comply with the law and protect our precious environment.

## Control mud and sediment

The combined effect of all the sediment and soil washed off from Auckland's many construction and earthworks sites has a devastating impact on our environment by degrading marine habitats.

Allowing soil disturbed during site development to be washed away by rain is an offence.

Plan in advance to contain and control the sediment; it also means that your site will be better drained and recover after heavy rain.

## 4. Install private drainage at the earliest opportunity

- Install the drainage system at the earliest opportunity to make the best use of existing infrastructure.
- Connect to the stormwater system as soon as the roof is complete.
- Ensure only clear water is discharged to the stormwater system.

## 5. Stabilise entranceways

- Stabilising entranceways can prevent or limit the tracking of dirt onto the road, and for the best results it should be concrete.
- The minimum set up should be 2m wide with a geotextile base and a 150mm thick layer of 50-75mm sized aggregate.

## Mud on the road

- Mud and contaminants must not be tracked onto the road as it can be a danger to motorists. It is also washed into the stormwater system by the rain and can create a dust nuisance.
- It is your responsibility to ensure that the road is clean of mud and sediment, failure to do so can result in legal consequences.
- Mud should be swept back onto site, or if there is a large quantity, a sweeper truck should be arranged to clean the road.
- Never wash mud on the road into the stormwater drains.



Disturbed areas exposed, the less soil can be washed away. Possible and do your work in stages. Materials to cover.

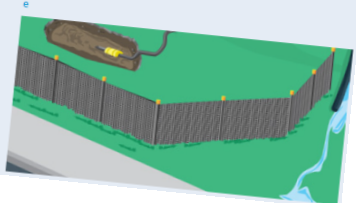
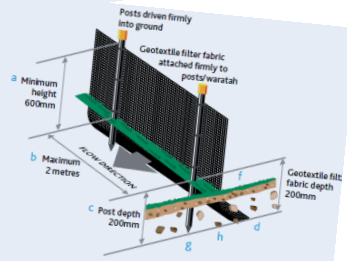
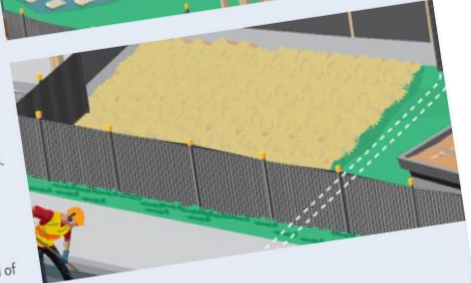
Work. Site to keep hold of way.

Temporary barrier of woven 100 micron geotextile used to intercept dirty water and retain sediment. Good for small, disturbed areas or around stock-piles all work sites. For steep slopes it is best to use more fence.

Fence installation is critical to its performance.

- a. Post 600mm high
- b. Supported by posts on the downhill side no more than 2m apart
- c. Installed with a trench – 200mm deep by 200mm wide
- d. Composed of 400mm of cloth below ground, 200mm along the side of the trench and 200mm lining the bottom
- e. Each end of the fence should return up the slope roughly 2m to prevent water going around the edges
- f. Back-filled over the cloth
- g. Hammer staked at least 400mm deep on the downhill side of the fabric
- h. Anchored using the above options of trenching, or applying aggregate.

Note – haybales are not considered an appropriate form of sediment control as they are ineffective.



# Building on small sites

Doing it right



Find out more:  
phone 09 301 0101 or visit [aucklandcouncil.govt.nz](http://aucklandcouncil.govt.nz)





## Stabilise entranceways

Keep vehicles off exposed soil and clay – build a stabilised entranceway with geotextile cloth and large washed aggregate.

### How?

- The minimum set-up for your entranceway should be at least:
  - a 150mm thick layer of 65-100mm-sized aggregate
  - 4m wide with a geotextile base
  - long enough for your site with 'wings' (to allow for vehicles cutting corners)
- Don't use materials like sand, crushed concrete or asphalt to make your entranceway.
- Mud should be swept back on to site (not on to the road).

### Why?

- A stabilised entranceway prevents vehicles tracking mud and clay on to the road (which is a common source of complaints to council).
- Mud and contaminants can make a road slippery and dangerous. They can be washed into the stormwater system by the rain or create a dust nuisance when it's dry.
- It is your responsibility to ensure that the road is clean of mud and sediment. Failure to do so can result in a fine or prosecution.



## Drain/catchpit protection

There are many problems with catchpit protection. It should only be used to support the other sediment control measures mentioned earlier. Talk with your compliance officer about the best options for your site.

### How?

When installing catchpit protection:

- Install a series of sand socks in the kerb channel – this will slow the flow of the water allowing more sediment to drop out of the water
- check it regularly – especially after there's been a lot of rain
- remove it when your job is finished.

### Install private drainage at the earliest opportunity

- Once the roof is on, install drainpipes (temporary or permanent) so rainwater can be diverted to stormwater drains.

### Why?

- Clean rainwater is diverted from exposed site, making it less muddy and sending only clear water down stormwater drains.



CAP 65 placed on top of geotextile material

## Before the project starts

### Read your consents

- In many cases you may have both a resource consent<sup>1</sup> and a building consent<sup>2</sup>.
- Before starting work you need to know what your consent conditions are.
- Have a copy of all consents on site.
- Make sure your contractors and subcontractors know the consent conditions.
- Let council know when you're about to start work.

A resource consent has conditions about how your development will affect the environment (land, air, water, neighbours, streetscape, etc.). Building consent gives the details of how construction will occur.



## During the site works

### Control mud and sediment

You need to prevent soil on your site being washed away by rain.

You can do this by installing sediment and erosion controls to contain your sediment on site.

Not taking care of this is an offence and you can be fined.



Temporary drainpipe installed on house under construction



Doing it right 13

Building on small sites: Doing it right 14

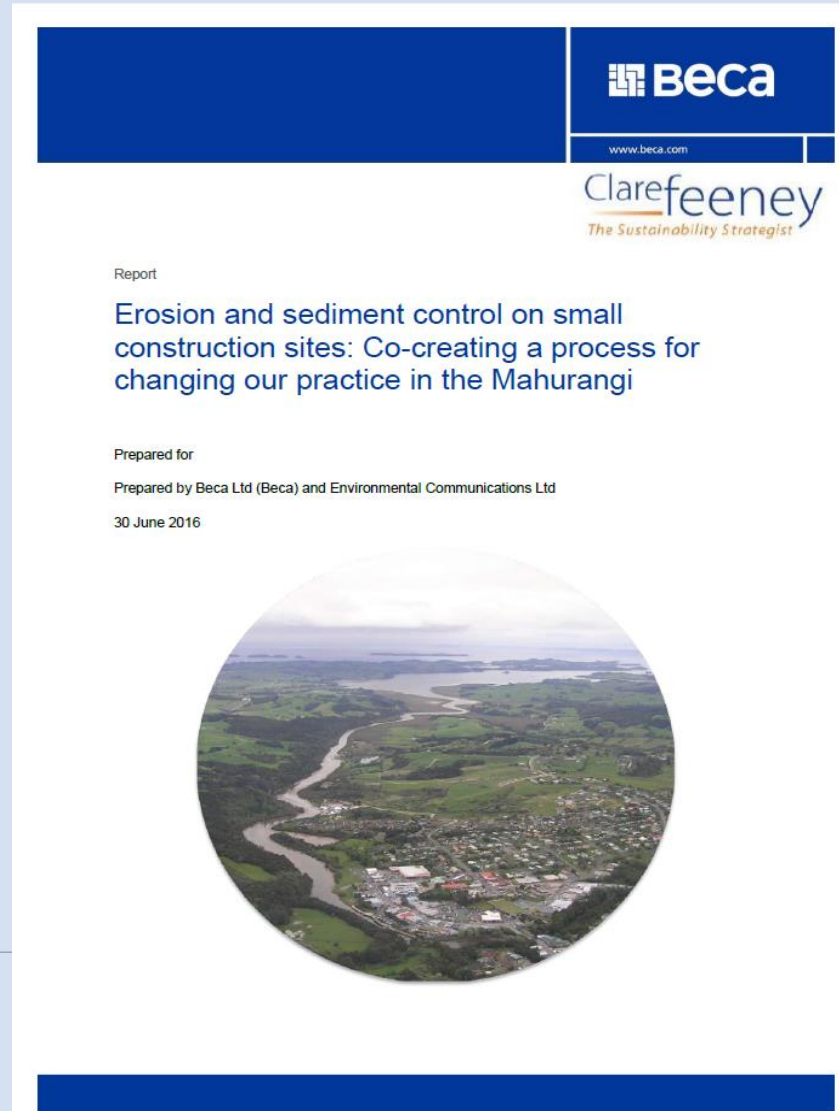
# Video's

- Good building site management
- Building a silt fence and bunds
- Stabilising an entranceway
- Working with concrete
- Catchpit protection



# Embed video/s

# Other work





# What's next

- An “over the fence” guide
- Work on accreditation
- Work on education
- CEC project
- CME project
- Newcore
- Translation
- Website

# Innovation .....!!

