

Sediment and concrete slurry controls for Wellington Water job sites

As with any work site we need to start off with the Risk Control Plan and assess the risks – including environmental risks

'What am I doing'

'What can go wrong'

'How can I do it safely'

Figure 1:
Sediment laden water entering the stormwater sump on Hair Street with inadequate sediment controls in place



Filter cloth (bidim - Geotextiles) that I have seen on sites and are pictured above should not be used in drains/sumps as they do not filter sediment nor concrete slurry, the only possible use would be if you wanted to overlay the sump (including the sides of the sump) with several layers of bidim so nothing enters the sump to transfer the discharge from site to another sump further along the road, in which you may have a jet vac operating.

Geotextiles main use is to improve soil characteristics. They are used in some instances to prevent chip seal going into drains

Sediment discharge control

1. The witches hats sump guards are specifically for sediment as they let water flow through whilst capturing the majority of sediment. They can be cleaned out but probably only a handful of times. Expensive (about \$90per hat) but if you used them in conjunction with the filter socks or sand bags in the 2nd & 3rd photo you wouldn't need to clean very often as not much would get through the socks



Pic 1. Witches hats

Sediment and concrete slurry discharge control



Pic 2. Sediment and concrete slurry controlling dams



Pic 3. Filter socks for use controlling sediment and concrete slurry

The number of 'dams' (sand bags or filter socks can be used) that are required depends on the volume of discharge and gradient of the road, as the idea is to slow, control and trap. The road will need to be cleaned; shovelled and swept afterwards

2. Another option is the inflatable pipe plugs which come in all sizes and will stop flow out of the sump, especially effective if you have a jet vac on site, sucking from a sump, while you are working and you can reuse



Pic 4. Inflatable pipe plugs

Concrete cutting wastes are very corrosive and asphalt cutting wastes contain environmental toxins, both can be very harmful to the environment and are practically impossible to filter or dilute to safe levels.



A good solution is to divert the slurry into the area cut as demonstrated above

With the exception of the witches hats concrete slurry should be managed in the same way as we manage sediment.