

# THE STREAM

NEWSLETTER FROM  
CASHMERE STREAM CARE GROUP (CSCG)  
AUGUST 2014



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ISSUE:

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## Our Dirty Little (not-so-secret) Secret

The sight of Cashmere Stream's dirty brown water entering, and discolouring, the much clearer Heathcote River at the Cracroft confluence is an embarrassing reminder that all is not well in the Cashmere catchment. The unseasonably large amount of rain since January emphasises that these heavy rain events can affect us at any time of the year. Those affected by the June 2013 and February 2014 flooding need little reminding.

Why does the problem appear to be getting worse? The answer lies in a combination of natural and man-made factors. More than the total annual rainfall for Christchurch has already fallen, with more than four months of the year remaining. The earthquake is believed to have reduced the fall of the Cashmere Stream and Heathcote River between Sutherland's Rd and the Heathcote Estuary. In heavy rain events,

water naturally backs up into the Cashmere catchment from the Heathcote River, thereby holding back floodwaters in Cashmere Stream. But there are man-made problems too. There is a significant amount of erosion-prone rural land in the catchment where land development exacerbates sediment runoff. This is particularly evident in the Hoon Hay Valley and Worsleys Rd hill catchments.

Cashmere stream  
enters the clear  
Heathcote River  
13 April 2014



Photo: Dave West



Photo © Shelley McMurtrie

Kōura/  
freshwater crayfish



Photo © Dave West

Pentonville Close  
swale discharging into  
Cashmere Stream  
13 April 2014



Learning how to  
take water clarity  
measurements



Photo © Robin Smith

# “Suspended sediment & sediment deposits are the greatest threat to the health of our stream.”



Photo © Robin Smith



Kākahi/  
freshwater mussel

Photo © Shelley McMurtrie

We intend to develop positive relationships with land owners, and to work with them to reduce sediment runoff where practical.

Another major factor is an increase in the number of new buildings and roads in the catchment. Roofs, driveways and roads all collect rain and send it into the stormwater system – which ends up overwhelming the Cashmere Streams channel capacity.

When new subdivisions are built the soil is stripped of its grass/weed/forest cover, making the exposed soil vulnerable to erosion when it rains. Often developers and contractors are so focused on their businesses that the environmental issues (particularly soil erosion) are seen as a low priority. We see soil stabilization as the key issue for hill developments.

Unfortunately development on the Cashmere hills is complicated by the fact that these loess soils are one of the finest and lightest soil types. They are so fine they are difficult to separate out of the hillside stormwater runoff, even after

many days being held in static structures such as settlement ponds. Some soil particles do not settle out but remain suspended in the water column, leaving it looking dirty, which is why the stream often looks discoloured.

Of course the majority of the larger sized soil particles end up being deposited in the lowest lying areas of the catchment, i.e., drains, paddocks, and the Cashmere Stream and Heathcote River bed. Any fine particles that reach the Estuary quickly drop out as they mix with the salt water, thereby smothering the more naturally sandy estuary habitat.

Suspended sediment and sediment deposits are the greatest threat to the health of our stream. It clogs the gills of fish and invertebrates, and is similar to us trying to live in a smog-choked city. Deposited sediment smothers koura/freshwater crayfish, kakahi/freshwater mussels, small native fish and their spawning sites with layer-upon-layer of silt – until they can no longer survive in the habitat.

To make matters worse – the silting is seen by property owners on the low land areas of the catchment as a flooding risk (not without justification). The council is under pressure to remove the silt and the in-stream plant growth. So the only remaining habitat for the few koura, kakahi and native fish is removed by the stream cleaning process. It's a vicious cycle of erosion and cleaning, erosion and cleaning.

Is it any wonder that Cashmere Stream and its tributaries keep delivering huge loads of silt into the Heathcote. The biggest challenge the Cashmere Stream Care Group (CSCG) faces is keeping sediment out of the stream and its tributaries.

Landowners with stock are reminded of ECan rules about restricting stock access to waterways ([ecan.govt.nz/publications/Plans/stock-exclusion-from-waterways-factsheet.pdf](http://ecan.govt.nz/publications/Plans/stock-exclusion-from-waterways-factsheet.pdf)).

This is a key objective of our Action Plan, and we will be inviting your help in making it happen.

Email [cashmerestreamcaregroup@gmail.com](mailto:cashmerestreamcaregroup@gmail.com)  
to request a copy of the CSCG Action Plan

# We invite you to help to make it happen

## What we've been doing:

- Reviewed and updated the action plan for the group.
- ECan has kindly donated six sets of water clarity monitoring equipment – so we developed a water clarity monitoring programme. It consists of 25 sampling sites throughout the catchment, and a focus on stormwater runoff from developments.
- Recruiting locals (including a local school and Girl Guides) to be part of the water clarity monitoring programme.
- Taken a significant number of photos demonstrating “the good, the bad and the ugly” within catchment tributaries, and followed up with letters to parties concerned.
- Met with ECan and the CCC to understand their role in the management of Cashmere Stream.
- Met with some landowners to learn about plans for their land.
- Putting together presentation for the local water Zone Committee August meeting.
- Held a water clarity measurement training session for volunteers helping with our monitoring programme.

## What's next...

- We'd like to hear from anyone wanting to be part of the CSCG. We would benefit from an additional one or two active members.
- We invite anyone who is interested in assisting with our stream monitoring programme to contact us by email on [cashmerestreamcaregroup@gmail.com](mailto:cashmerestreamcaregroup@gmail.com).
- We would like to hear from catchment landowners about their concerns regarding impacts on the stream, and if they are interested in rehabilitation of stream margins on their land.
- We will make a submission on behalf of the CSCG at the hearing on the development at the corner of Hendersons Rd and Lincoln Rd, which has been designated for residential development.



CASHMERE STREAM  
CARE GROUP  
(CSCG)

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