

Global consent to discharge stormwater

FACT SHEET

Here's the link to Council's global consent to discharge water from the stormwater network:

<https://www.ecan.govt.nz/data/consent-search/consentdetails/CRC190445/CRC190445>

Managing Stormwater flow

- The global consent was issued on 20 December 2019.
- We now have a condition on the consent which requires '**Full Flood Attenuation (FFA) for the Pūharakekenui / Styx River Catchment**'.
- This means Council is not allowed to let stormwater discharge from any new developments create any additional flooding risk to the Brooklands community in a one in 50 year storm.
- This new consent holds us to a higher standard of stormwater mitigation than our previous Styx River catchment consent, which only required 'Partial Flood Attenuation'. With the old consent we relied on the flood ponding area in the Lower Styx floodplain to absorb the balance.
- We've also been retro-fitting stormwater treatment and detention facilities to some older existing developments in recent years – so in effect this Full Flood Attenuation condition has also been met for developments since 2014. This includes the Prestons subdivision.
- While the northern arterial motorway is not a Council project, the New Zealand Transport Authority has provided for flood protection from the Northern Arterial for up to a 50 year event.
- Stormwater detention basins restrict stormwater flow from developments so the river flow is not increased above the pre-development stormwater flows. There is also an environmental benefit – detention basins and associated wetland areas help improve river health by removing sediment and contaminants.
- Styx river water levels are continuously monitored and recorded at 15 minute intervals (or more frequently) at:
 - Radcliffe Rd Bridge: <https://ecan.govt.nz/data/riverflow/sitedetails/66425>
 - Prestons Culvert under Lower Styx Rd
 - Lower Styx upstream of Spencerville: <https://ecan.govt.nz/data/riverflow/sitedetails/66423>
 - Harbour Rd Bridge: <https://ecan.govt.nz/data/riverflow/sitedetails/66422>
 - Downstream of the tidegates
 - Guthries Rd culvert on the Ka Putahi

- The water level information can be viewed online (using the links above) to see what's happening in real time. You can also see what's happened over the years, and the differences between years.

Dredging and weed control



- Another issue that impacts on flood risk is the amount of weed in the waterways. There's now a condition in the consent relating to a trigger water level at which weed harvesting must start. There are also conditions in the consent which require further investigations into the management of weed in the Styx River.
- We currently harvest weed 2-3 times a year. For the Styx River it's the weeds, rather than sediment built up, that has the most significant impact on the normal level (or height) of the water in the river (up to 1 metre seasonal variation at Radcliffe Rd).
- Christchurch Drainage Board records show that it used to manage weeds by hand clearing, herbicide treatment and mechanical cutting and also dredge the Styx River occasionally. However, this dredging stopped in 1989 for ecological reasons when the Council assumed the responsibilities of the Drainage Board. Dredging disrupts sensitive ecosystems and has a negative impact on the native fish, insects and plant life.
- We have done two dredging projects near Spencerville since the earthquakes to see if it would have any significant impact on reducing the water level. From those projects we discovered that dredging had little impact.
- The water slows down in the lower reaches of the Styx River at high tide. Some sediment is slowly accumulating in these lower reaches. However, it is small compared with the 1 metre seasonal variation due to weed growth and die-back that we can see from our water level monitoring at the Radcliffe Road bridge.