

MANGAKOTUKUTUKU STREAMCARE GROUP SUBMISSION ON THE THREE WATERS STRATEGY

Our comments are focused on the stormwater part of the draft Three Waters strategy.

Mangakotukutuku Stream Care Group

- Our group was established in 2005 to help to protect and enhance the ecological values of Mangakotukutuku Stream, and raise awareness of the ecological values other urban streams in Hamilton City.
- Our activities have included riparian planting, constructing a ramp to enhance fish passage, development and implementation of restoration plans, public education days, and submitting on relevant proposals that are likely to affect stream biodiversity in the City.

Stormwater and stream management

- Impervious area exceeding about 5% causes ecological degradation in sensitive streams receiving stormwater inputs. However, if stormwaters are not directly connected to streams much greater impervious areas can be achieved without compromising ecological values. Low effective impervious area can be achieved through dispersal-at-source solutions such as the promotion of infiltration and evapotranspiration.
- Soakage of roof runoff (e.g., in raingardens), use of swales alongside roads and carparks, and establishment of wetlands and urban forests and carparks are effective ways of achieving of infiltration and evapotranspiration if done over a large enough scale. Innovative and imaginative engineering solutions need to be implemented to deal with stormwater at source rather than ecologically-unfriendly methods that use streams and part of the stormwater network.
- Once the contaminants have entered the stormwater system, stopping them reaching the stream becomes difficult. Ponds with sufficient detention periods to remove fine particulates (to which most contaminants are attached) require a lot of space and need to be integrating into the planning process. The stream itself is not an acceptable location for stormwater ponds or detention dams. Streams are natural ecosystems with ecological and biodiversity values that need to be sustained through development.
- Culverts, dams and drop structures create barriers for migrating native fish, including giant kokopu, and reduce stream connectivity. Piping should be eliminated and drop structures should be required to maintain fish passage.

Comment on the draft Strategy

- We note that the effects of impervious surfaces on ecological values are acknowledged in Strategic issues 7.6 and 7.9, and that the form of development affects water quality and biodiversity. We support the integration of land and water management to reduce stormwater impacts using the mechanisms described above that treat stormwater at source.

- We were pleased to see one of the Responses to 7.6 “Manage stormwater in a way that reduces adverse environmental effects and efficiently uses the water resource”. We note that for many urban streams adverse environmental effects will need to be reduced by a significant amount to restore life supporting capacity and achieve the less than the 5% effective impervious area identified as a threshold. For key urban streams such as the Mangakotukutuku, Bankwood and Gibbons, this may require a long term plan to retrofit existing stormwater infrastructure. We would also like to see this captured in the Response to issue 7.9.
- We note that stormwater affects not only water quality but also fundamentally alters the hydrology which arguably has a greater impact on stream ecology and biodiversity. Apart from a brief mention in Strategic issue 7.9, we did not see this issue acknowledged in the strategy and believe this should be more explicit in the Goals and Response as managing urban hydrology is a key component of managing stormwater.