

STATEMENT ON BEHALF OF THE MANGAKOTUKUTUKU STREAM CARE GROUP

RESPONSE TO REPORT ON SUBMISSIONS

1. The Stream Care group appreciates the recognition by Council of the high values of this stream, and the efforts that have been made to accommodate the Group's views in the Report on Submissions. However, we continue to have some concerns regarding the effectiveness of the proposed measures in maintaining the existing high instream ecological values of the Peacockes Branch of Mangakotukutuku Stream.

2. Stormwater Treatment Methods

We were disappointed to read the statement in paragraph 3.5.1 that the Peacockes gully is viewed as being “a natural drainage pattern that can be enhanced and supplemented to serve stormwater needs for urban development”. It is recognised worldwide that stormwater causes adverse affects on streams through the causes I outlined earlier—flashier flows and higher floodflows, increased erosion and smothering by sediments, discharge of contaminants in runoff etc. It takes very little stormwater entering directly into the stream channel for these effects to occur. Methods described to “enhance” or “supplement” the natural drainage pattern for stormwater purposes will not, in my opinion, serve to maintain the existing high ecological values of this stream.

Stormwater needs to be kept out of the stream as much as possible, and preferably treated at source through the use of rain gardens, swales, pervious pavers etc rather than at the end of a pipe. However, we do support end-of-pipe treatment options where necessary, such as the use of wetlands proposed in paragraph 3.5.3, as long as these are outside the stream channel. It seems to be accepted in the Report on submissions that structures will inevitably be built in the stream channel to cater for floods or heavy rainfall events (e.g., Section 4.5A #3). The Mangakotukutuku Stream Care Group questions why these would be needed if at-source and end-of-pipe stormwater solutions are implemented – the stream at the moment can cater for existing stormflows and the need for instream structures would signal that other stormwater attenuation measures have not been successful.

We appreciate that the detail of such stormwater treatment measures is beyond the scope of this Structure Plan, and is best dealt with in a Catchment Management Plan. We note in paragraphs 3.5.21 and 3.5.22 that this Catchment Management Plan is

also intended to address details relating to aquatic biodiversity and fish passage. Given the outstanding values of this stream in the context of other streams in Hamilton City, the Mangakotukutuku Stream Care Group would expect catchment-specific measures to be implemented in the Peacockes area that protect these values. However, we are concerned that simply by stating that a Catchment Management Plan will be prepared, there will be no further opportunity for concerned groups such as ours to provide comment and input on what is being proposed. We want clarity around who will be involved in developing the Catchment Management Plan, details on consultation, and confirmation that this plan will be externally peer-reviewed so that our concerns are not side-lined during the plan development process.

3. Zinc runoff

We do not accept the report's conclusion that "zinc should not be such an issue for the Peacockes area as it will contain largely new residential housing utilising modern roofing material" (Section 4.5B, Recommendation B # 3). Zincallume is a commonly used roofing material and, while rates of zinc leaching are around one quarter of those from unpainted corrugated iron, we consider that these rates will be still significant over time if zincallume is widely used and is not painted.

To put this another way, you would be rich if you won \$35 million dollars on the Big Wednesday lotto draw. You would also be rich if you only won a quarter of this amount. It's the same with zinc – one quarter of the large amount of zinc leached from corrugated iron is still a lot environmentally because it takes only around 8 parts per billion of zinc to start affecting aquatic life. That is the same as 8 drops of food-colouring in a large petrol tanker full of water – you can't see it but it is there.

The point is that you don't need much zinc to have an environmental effect, and requiring zincallume roofs to be painted is a common-sense way of minimising these effects. Zinc from stormwater also accumulates in sediments where invertebrates live and some fish feed. Even though zinc leaching from zincallume is lower than from corrugated iron, over time significant amounts may accumulate in streambed sediments where it can have long-term effects on stream life.

4. Seepages

I highlighted earlier the importance of seepages for aquatic biodiversity values, and we appreciate that these values have been recognised in the Response to Submissions. However, simply stating that these habitats will be "addressed through the rezoning

process” and through revision of the “extent of the Environmental Protection Overlay” seems rather vague to us, and does not provide confidence that these small and inconspicuous, but nevertheless ecologically significant, habitats will slip through the cracks during the planning process. Many seepages occur on gully floors where groundwater comes to the surface and so should already be incorporated in the Environmental Overlay. The Mangakotukutuku Stream Care Group wishes to see these habitats explicitly recognised in the statement of Protection and Recognition of Significant Features (Section 4.5C; Recommendation C).

5. Protection and enhancement of significant natural features

We welcome the insertion to the rule described in Section 4.5C, Recommendation C. We note that the freshwater crayfish, which is a threatened species in gradual decline, is currently quite common in this stream and its limited distribution around Hamilton suggests that it is highly sensitive to stormwater impacts. We look forward to seeing this threatened species protected in this stream through appropriate stormwater management.

As previously mentioned, we would like Recommendation C to explicitly recognise seepages as important habitats. Furthermore, in addition to threatened species, we want to see this statement include “community types that are rare in Hamilton City” so that the mayfly and caddisfly dominated invertebrate community present in some parts of this stream will be protected. These sorts of invertebrates are rarely encountered in Hamilton City streams, and as I have described earlier the lower section of the Peacockes Branch is the most outstanding example of this community type in Hamilton City. Invertebrates live on the bottoms of streams, and so the impacts of contaminants such as zinc accumulating in the sediments are of concern to us.

We propose Recommendation C is altered to read:

“Manage stormwater to minimise the effects of urban development on Mangakotukutuku Stream values and functions, including seepages, maintain the ability of the stream and seepages to continue to provide habitat for threatened aquatic species and biological communities that are rare in Hamilton City, and minimise adverse effects on the stream water and sediment quality, and habitat through stormwater management methods”.