Rebuttal of the Evidence of Frida Inta

Evidence provided by Frida Inta is a submission in conditional support of the project by Frida and the West Coast branch of the New Zealand Green Party.

HDL appreciates that the submission was largely in support of the construction of the Stockton Plateau hydro project but it did raise some issues with regard to the effects of the scheme which we believe it is important to address in this rebuttal. HDL will raise these matters in the order that Frida raised them within her evidence as presented but not necessarily in the order of the written evidence.

The lime dosing in reservoirs that Frida referred to, and indicated general opposition to, is not covered by the consent application by HDL. Lime dosing of the Weka reservoir is, however, mentioned in the Cawthron report and in the AEE as a potential alternative to the diversion of contaminated water either out to sea or back in to the Mangatini Stream via Weka Creek. This could occur in extreme climatic conditions that could lead to; flows or water quality in the Weka reservoir being dominated by leachate from waste dumps during an extended drought; flows from inadequately constructed waste dumps; or flows from the result of natural disasters occurring in the catchment which lead to exposure of AMD that is otherwise contained by waste dump.

All these events are very low probability events and are likely to occur once every 10 years or more.

When these events occur, the evidence presented by HDL is that the water quality at the outfall may exceed ANZECC thresholds over certain periods. The exact period is impossible to predict at it will be related to the nature of the low probability events.

HDL has stated a clear preference not to use lime dosing to adjust water quality in these events. Cawthron's advice to HDL is that an infrequent event that discharges non-complying effluent at the ocean outfall is unlikely to have permanent or significant effects on the marine environment in the area of the discharge. Hence it is HDL's belief that a non-complying discharge under these extreme environmental conditions would lead to the least environmental effects that could be caused by this type of extreme event and is the preferable way of managing the event.

However, this said, HDL has proposed a condition of consent that requires an outfall management plan is prepared, and that in preparing and agreeing on that outfall management plan, both the West Coast Regional Council and the community would have involvement in deciding which is their preferred contingency mechanism for extreme conditions when ANZECC guidelines are exceed adopt, or monitoring indicates they are likely to be exceeded.

HDL is prepared to be directed by the consent authority in this regard and could either:

1) close off discharge to the ocean outfall when conditions in Weka reservoir indicate that the ANZECC water quality guidelines will be exceeded at the discharge and hold water within the reservoir until such time as the weather conditions change, the tidal conditions at the outfall change, or the reservoir capacity is exceeded.

2) continue to discharge through the diffuser but advise the consent authority immediately that ANZECC conditions are likely to be exceeded for the given extreme environmental reasons. HDL would anticipate various notices being distributed to users of the area so that they were aware of the temporary hazard.

3) lime dose the Weka reservoir in order for pH to be corrected and hence ANZECC water quality conditions would be met at the diffuser.

HDL believes that the first two mechanisms would be covered by the proposed conditions of consent and would not require further consenting. The third condition - construction of a lime dosing plant - would require a further consenting process. At that stage both Frida and the Green Party would have the opportunity to oppose those conditions of consent.

Next I turn to the point raised by Frida with regard to wetlands and the benefits that wetlands can provide in terms of water quality. The current consent application by Solid Energy for the Millerton pit mentions the possible construction of wetlands within the final landform of the Millerton pit or at the syncline formed at the downstream end of the Millerton pit. It is noted that research by Solid Energy and other mining companies, indicate that the areas of wetland required to have a significant effect would be substantial and could not be reasonably contaminated within the areas that are available. Hence, wetlands cannot in themselves be regarded as a solution to AMD. However, we do note that the wetland and the frequently saturated peripheral areas of the reservoirs and contributing catchments will, to some degree, mitigate the effects of AMD.

Turning to the suggestion of alarms on the dams, HDL would have no objection to establishing alarms and does not believe that there are technical reason why alarms could not be provided if that is deemed to be an appropriate safety feature in the final dam consenting process. HDL understands that consultation with the community directly affected by dam construction would be included in the final assessment of risk undertaken as part of the dam Building Act consenting requirements.

As part of these requirements, the consideration of seismicity must be included. Seismicity has already been taken into account by URS in the dam concept design report. URS has concluded that the dam can be built within the seismic constraints of the sites.

Finally, Frida mentioned the effects on the Mangatini Falls. In John Easther's evidence he has discussed the quality/volume trade-off that this application requires to be considered. Frida used the word "trickle" over the falls rather than the current "massive" flow.

HDL's hydro analysis shows the anticipated flows over the Mangatini Falls as a result of truncation of the Mangatini Stream by the Mangatini diversion weir.

The figure contained in the analysis shows that the remaining flows over the Mangatini weir are more than a "trickle". By far the most frequent observation of the Mangatini Falls will be not dissimilar to the current water conditions that exist over most of the periods that intervene periods of rainfall. Table 4.5 in figure 8.1 of John Easther's evidence shows that over 50% of the time more than a cubic metre a second passes currently over the falls in the natural state, and that this will be reduced to around 0.4 cumecs going over the falls. 0.4 cumecs is not a trickle. It is equivalent to full flow from the Mangatini water treatment pipe, a 500mm diameter pipe running at full – a not insignificant flow.