

### **Issues Raised During the Hearing**

The applicant has indicated that Ocel will be the company conducting the micro tunneling operations and that they have provided a report on the operation. The Councils have not received this report and believe it would be useful to help understand the process and determine any potential effects.

The applicant mentioned a wheel wash and/or hose to help control dust emissions. I am not sure that this has been identified and/or addressed in the consent application and the discharge from the wheel wash would potentially require a resource consent. However, it is expected that the discharge from such a facility would have no more than minor, if not negligible, environmental effects.

In regard to issues raised in regard to the monitoring requirements for SENZ's consents, I believe this was answered by SENZ when it presented its submission. In regard to the discharge of sewage from the site and providing a copy of the review of the SENZ hydrological model for Cypress Mine, these will be addressed by Mr Colin Dall.

The derogation issue in regard to SENZ and its current and future consents will be also be addressed by Mr Dall.

The applicant stated that they had the ability to discharge water through the micro tunnel and out to sea if the dams were full and there was no market for the generated electricity. They also stated that they could pump double the generation capacity out to sea if need be. I do not believe that the effects on dilution rates and on the ocean ecology have been considered at this much higher rate of discharge.

A comment was made during the hearing that the WCRC plan does not cover mixing zones. The Regional Coastal Plan for the West Coast does mention mixing zones but simply says that the setting of a mixing zone should take into account the following:-

- The sensitivity of the receiving environment;
- The particular discharge, including contaminant type, concentration and volume;
- The physical processes acting on the area of discharge;
- The community uses and values, including the values of Poutini Ngai Tahu, associated with the area affected by the discharge; and
- The ecosystem values associated with the area.

Are there any water quality sites on the plateau monitored by WCRC? There are and these will be addressed by Mr Colin Dall.

I would also rate the quality of the near shore environment as low to moderate due to the high energy of the environment and the constant scouring effect. Studies down south in the Jackson Bay area have found low species diversity in the near shore environment due to the high energy environment of the West Coast.

### **Matters Still Outstanding from the S.42A Report**

In regard to hydrology, I am now satisfied that HDL have adequately placed the year 2006 monitoring into context in terms of it being a wet year in comparison to the other years monitored. In general HDL have adequately address the hydrology issues but there is still the perpetual need for more data in order to better understand what is happening as a result of the project and in particular in regard to flood and low flows.

In regard to bryophytes, I still believe there is an issue with these and how their loss will be effectively mitigated for. From what I understand the applicant is no longer proposing to transfer the rare bryophytes and is just planning to inundate them as HDL considers their loss will be minor. These bryophytes have been found in the footprint and their loss still needs to be mitigated for. There is still uncertainty in regard to how affected some streams are by AMD in particular Weka and Sandy Creeks and this still needs to be looked into further.

Our expert is still of the opinion that a new dam break scenario should be run using the correct heights and construction of the dams in order to determine the potential effects of a dam failure in terms of potential effects on the community and the environment.

I am relatively satisfied that the effects of the ocean outfall can be managed by consent conditions and that the further studies and field trials to be undertaken by the applicant will further quantify the discharge and its potential effects.