

Before:

THE WEST COAST REGIONAL COUNCIL  
AND THE BULLER DISTRICT COUNCIL

**IN THE MATTER** of the resource  
management act 1991

**AND**

**IN THE MATTER** of applications for  
resource consents by Hydro Developments  
Ltd for the Stockton Plateau Hydro Power  
Scheme

**ADDENDUM TO STATEMENT OF EVIDENCE OF  
S42A STAFF REPORT**

By: Jane Bayley

*Resource Management Consultant*

Staig & Smith Ltd

Rachel Clark

*Senior Consents Planner*

WCRC

Colin Dall

*Manager Consents & Compliance*

WCRC

## ISSUES RAISED THROUGH THE HEARING - BDC

### **1. Situation between HDL and other hydro applications and the weighting required to be considered**

Comment was raised about the assessment of the application in terms of cumulative effects for other applications, for instance Meridian Energy's Mokihinui Hydro Proposal, and SENZ's proposed hydro scheme.

In response to the staff report, the Applicant has provided details showing the location of the proposed transmission lines for the MHP project. This was requested to consider the cumulative effects of powerlines on the plateau. While consent has not been granted to date, the application has been considered by Council and it is not fanciful to consider the proposal.

In regards to SENZ's proposed hydro scheme, that utilises the same resource, the Council's have not received an application. Consideration therefore cannot be had as to this scheme, as the details of it are unknown.

### **2. Comment on the St Pat dam upgrade requirements under the Cypress Mine conditions**

Mr Easter in his evidence referred to the requirements of SENZ to upgrade the St Pats dam as part of the Cypress Coal Mine resource consent. Although outside the scope of the application, reference has been made to the requirements for water quality and dam upgrades which will affect the scheme. If required, I have a copy of the conditions for your reference.

### **3. Comment on the land swap parcel**

Ms Inwood identified in her evidence that the 14.6ha parcel of land as to being subject to a land covenant. A copy of the covenant has not been provided to ascertain what level of protection has been provided by the land covenant. A copy of the covenant should be provided.

Also she noted a further 9.4ha of land being subject to a protective covenant. This is incorrect. The area of the land covenant is only 1.7727ha which adjoins the boundary of Lot 2 DP 361787, making the area under covenant 16.37ha.

The information supplied by Ms Inwood on the land swap area, identifies the qualities of the Fairdown vegetation. This information confirms the assumption of Mr Turner regarding the proposed off setting mitigation of the land swap as being a pragmatic off set for the loss of vegetation.

Mr Turner however notes that the land swap does not compensate for the loss of habitat of fernbird.

### **4. Copy of experts backgrounds**

As requested of the applicant, attached is a copy of the expertise of the Council's technical review team.

## **5. Copy of MAPPS**

Comment has been made about the requirement of SENZ to operate under the MAPPS agreement, the requirements of which will be brought down to HDL. Even though HDL will be operating underground within the MAPPS area, SENZ confirmed that all works will require the approval of the signatory parties to operate within this area. This will be required for all geotechnical assessments, as well as the tunnelling.

As requested by the Committee, I attach a copy of the MAPPS agreement.

## **6. Variation to dam heights**

Mr Easter commented that the dam height and the reservoir operating levels may vary depending on final design of the structure. I note however that the Applicant has only applied for a 40m dam height on Mt William and 25m on Weka Dam. The Applicant cannot exceed these heights, however they may go smaller. It is the dam height that will determine the operating level of the reservoirs. For a smaller scheme, this may require a variation to the scheme depending on the effects of reducing the scheme.

The effects of the project would be reduced in terms of the amount of water able to be stored in the reservoirs, and would potentially result in increased flood flows over the dam structures. This would possibly reduce the positive benefits of removing the AMD from the sites.

Comment was also made about the operating levels and the resulting beach like edge effects within the operating levels – referring to Manapouri. We were advised that the operating level at Manapouri is 2m while HDL will operate a 4m variation, however evidence produced by Mr Easter on the whiteboard, identified that the operating regime at Mt William was in the order of 10m.

## **7. Additional reports**

The Applicant identified that a report had been obtained from OCEL on terms of the ocean outfall pipe and effects on the coastal processes. The Council's processing team has not been provided with this report for consideration.

In terms of the Deloitte report, HDL are concerned about confidentiality of this report, as it contains financially sensitive information. The Committee are able to request this report, and keep the information confidential under S42(1)(b). This will enable the committee to consider the economics and efficiency of the scheme which would address an outstanding matter identified in the s42A report.

## **8. Dam breach**

The Council's technical reviewers identified a lack of assessment on the possibility of dam breach and the effects of inundation on the communities of Hector and Ngakawau from the change to the design and the increase in dam height and increased storage volume. The Applicant noted that the effects were "within cooee" of the original assessment and therefore did not require further assessment,

however our experts still consider that further assessment is required, not to identify the design requirements, but to consider the effects on the downstream communities, which is an RMA matter.

## **9. Noise**

HDL have provided evidence from Meridian regarding the noise levels projected for types of machinery on open ground. This evidence identifies noise levels and the setbacks required to meet certain standards. They then showed the Granity site, in attachment 21.4 of Mr Easter's evidence, with concentric circles showing the setbacks from the jacking station and the Granity portal.

The proposal identifies that for 70dBA on an open site, there should not be much of a problem regarding day time construction noise levels of 70dBA however for night times and Sundays would need to be mitigation required so that noise did not exceed 45dBA.

Also plant needs to be considered in combination. Two things of the same loudness working at the same time increase noise by 3dBA above the levels in the table and the distance to comply will increase by 5%.

The lack of evidence in terms of noise assessment continues. Mr Dravitzki notes that HDL continue to assert without any substantiating facts or calculations that provide the basis for their assertion, or they present some noise data but failure to deal with the details as outlined above gives no confidence that they actually know what they're doing with regards to noise.

## **10. Change to tunnel construction**

The change to the tunnel to have material being transported via rail is only an issue at Granity, where it is important that the material being extracted from the tunnel is stored in a stone bay or loading into vehicles, instead of having a storage area at the Granity construction area. No storage and loading area should be permitted outside the tunnel.

## **11. Landscape**

The information provided by HDL at the hearing in terms of the location of the Meridian Energy's MHP transmission lines has been supplied to Ms Hoddinott, who notes that her concerns about effects on the landscape have now been addressed, and she concludes that the proposal will not have a more than minor effect on the Stockton Plateau.

## **12. Ecology**

John Turner has considered the evidence presented on fernbirds. I attach a copy of his response, advising that his consideration of the effects have not altered and that he considers the effects of the loss of habitat to be significant. He also notes that the land swap will not mitigate the loss of fernbird habitat.

Mr Easter commented that no need to undertake further studies of the ecology of the road formations as numerous studies shows that there is nothing unique in the area. I note however the distinct population of *Powelliphanta Millertoni* which is

located in a very small area within the MAPPS, and also *Powelliphanta Augustus* which was found unexpectedly. Care needs to be had regarding the ecology of the Plateau, as these examples show that species can differ throughout the plateau.

### **13. Effects of subsidence on OnTrack**

Under Section 104(3)(b) when considering an application, the consent authority *must not have regard to any effect on a person who has given written approval to the application*. In this instance, OnTrack has given their affected parties approval. The Committee therefore is not required to consider the effects on subsidence on OnTrack as it is assumed that they have considered the effects on their operation, however the Committee can still consider effects on the land.

### **14. EMFs**

I accept the comments from Mr McSherry regarding the EMFs from transmission being based on the same voltage of electricity transmitted along the existing powerlines.

Little or any assessment has been undertaken as to the effects on the EMF from the powerstation, other than on immediate workers within the station.

### **15. Heritage**

Having considered the evidence provided, I note that HDL have not addressed the questions raised within the technical review. In addition, all archaeologists, including HDL's archaeologist, agree that the electric loco line is a nationally significant feature. The effects on the inundation of this line are considered to be more than minor by all archaeologists who have considered the proposal, and should be avoided.

The proposed mitigation of upgrading the remainder of the line, as mitigation to flooding part of the loco line, has large uncertainty surrounding it, not only because it involves third parties but also on timing of the mitigation.

It is acknowledged that the visitor display (presumably an open display as the Applicant has not identified any other structures as part of this application), which will enable mining features as a whole to be recorded and displayed which will benefit the area.

### **16. Bundling**

It appears to be common ground that the activity is non-complying, and that "bundling" applies in terms of activity status. S104, 104B and 104D apply. It is however conceivable that under that statutory tests some consents could be granted and others not. This would be an unnecessary complexity for the key consents which should remain "bundled", but it would be possible to sever for example the geotechnical investigations and reach different conclusions (either way).

## **17. Management Plans**

Numerous management plans are proposed. As currently worded in the conditions, these internalise standards and potentially allow for significant shifts in outcome over time.

Management plans can be a good tool in complex circumstances but are no substitute for “bottom line” conditions/standards to address effects. They work most effectively for temporary circumstances (such as construction stages), or as means of achieving additional mitigation beyond set standards (eg, noise management plans).

The Applicant’s current management plan proposals appear to internalise virtually all potentially measurable standards (often due to current uncertainty about what those standards should be), and set up internal systems and processes where decisions can be made which should more correctly be made by the statutory agencies – ie, the judicial function is delegated. This is a difficult area in terms of responsibilities; however we have concerns that setting such systems in place makes the two Councils’ ongoing roles and responsibilities very difficult.

If the Commissioners are of a mind to grant consents, we would recommend shifting as many components of the management plans as possible into direct conditions so that performance and compliance can be monitored by the Councils. Where no conditions are set, we would suggest setting up performance standards as conditions which trigger further action on behalf of the consent holder (or a Council-initiated review) if they are not met.

## **18. Comments on S104D Assessment**

Section 104D outlines the process required for making a decision of non-complying activity. Section 104D(1) sets a gateway test for non-complying activities which consent authorities must consider prior to undertaking an assessment under Section 104. The gateway test is an ‘either or’ test, meaning that if an application passes either gateway, it may proceed to an assessment under Section 104. It does not require both tests to be met.

The first test requires the Hearing Committee to consider whether the effects of the activity are minor. When considering whether the effects are minor, the Committee may take into account proposed mitigation, however this does not allow positive effects or offsetting/compensation benefits to be considered, unless they are part of the direct mitigation.

The second gateway test is to consider whether the application is *not contrary to* (consistent with) the objectives and policies of the relevant plan. The Buller District Plan is the main plan for consideration as this is the plan under which the application is a non-complying activity.

When considering the first test, the Council’s technical reviewers are still of the opinion that the effects of the proposal will be more than minor in terms of the effects to the electric loco line at Weka Creek and in terms of the loss of habitat for

fernbirds. Measures have not been provided that would mitigate these two effects. As such, I believe that the proposal does not pass the first gateway test.

When considering whether the application is contrary to the objectives and policies of the District Plan, I was unable to make a full assessment due to lack of information at the time of writing the s42A report. Largely, additional information has not been provided, although the Applicant has clarified matters.

Part of the lack of detail would be possible to be met through conditions of the consent, to ensure that existing transport networks are not affected by subsidence, that heritage qualities of Granity are not affected by blasting or subsidence. In terms of the objectives on water within the Rural Environment, the proposal will result in the improvement to water quality by removing AMD waters. The reduction of water quantity on the life supporting capacity of the waters downstream of the dams is not known, however it is expected that the removal of AMD will result in an improvement to the life supporting capacity.

The loss of value to the most historic section of the electric loco line, and the inability to provide conditions to ensure the on-going protection of the balance of the line results in a conflict with the objectives, however the proposed mitigation to investigate, record and publicly display facts on the mining heritage will improve knowledge of the importance of the Stockton Plateau to the District.

The loss of fernbird habitat is also contrary to the objectives to protect habitat. The proposal does not provide adequate mitigation according to Mr Turner to mitigate the loss of this habitat. The balance of effects on terrestrial ecology and landscape issues are consistent with the plan.

Ms Inwood concludes that the proposal does not contravene the objectives and policies of the Buller District Plan when taken as a whole.

Individually, the proposal is contrary to two of the objectives, however when balanced as a whole, the proposal is not contrary to the objectives and policies of the Buller District Plan, and as such passes the second gateway test.

As such, the application passes the gateway test under Section 104D and may be further assessed under Section 104 and Part 2 of the Act.

Name	Area	Experience
Jane Bayley Staig & Smith Ltd	Resource Management Consultant	Masters in Regional and Resource Planning from Otago University. 8 years as Planner and Senior Planner with Buller District Council and 1.5 years as Resource Management Consultant with Staig & Smith Ltd, specialising in processing of subdivision and land use consents, including mining and more recently processing of Meridian Energy's Mokihinui Hydro Proposal.
Rachel Clark West Coast Regional Council	Senior Consents Officer	Bachelor of Science from Newcastle University, Australia. 15 years working experience as an environmental officer in Australia, and 4 years as a Consents Officer with the WCRC.
Colin Dall West Coast Regional Council	Consents and Compliance Manager	Bachelor of Science (Chemistry) University of Canterbury, Diploma of Agricultural Science and Master of Applied Science (Second Class Honours Division I - Environmental Microbiology) Lincoln College.  22.5 years experience in resource management, including processing and monitoring of a wide range of resource consents.
Cathryn Barr Opus	Archaeology/Heritage	Master of Arts (Honours) degree in Anthropology, specialising in archaeology, from the University of Auckland, Master of Cultural Heritage degree through Deakin University, Australia.  20 years professional experience as an archaeologist in New Zealand.  Specialises in heritage assessment and heritage site management.
John Turner Opus	Ecology	BSc (Hons) Applied Science having specialised in environmental sciences.  20 years professional experience as an ecological consultant. For the past 10 years based in New Zealand, prior to which worked in the UK.  Specialises in ecological impact assessment of developments and has undertaken ecological assessments for a wide range of projects including; more than 60 highway construction projects, several wind farms located in upland environments, oil and gas pipelines up to 400km in length, a major gas processing plant and associated new port West Africa, several mines, and a variety of new commercial, residential and leisure developments.  Has specialist knowledge in assessments relating to vegetation and birds. Also has a good working knowledge of

		<p>other taxonomic groups; mammals; fish; reptiles; amphibians and invertebrates. Habitat experience is also wide ranging and includes; temperate and tropical forests; grasslands; rivers, streams and lakes; upland habitats; various types of wetlands; coastal dunes, saltmarshes and mangroves.</p>
<p>Jack McConchie Opus</p>	<p>Hydrology</p>	<p>Bachelor of Science degree with first class Honours, and a PhD.</p> <p>Member of the New Zealand Hydrological Society, the American Geophysical Union, the New Zealand Geographical Society, the Australia-New Zealand Geomorphology Group, and the Environment Institute of Australia and New Zealand.</p> <p>Principal Water Resources Scientist working for Opus International Consultants Ltd. Prior to the start of 2008, I was an Associate Professor with the School of Earth Sciences at Victoria University of Wellington. Taught undergraduate courses in geomorphology and hydrology, and a post-graduate course in hydrology and water resources.</p> <p>For three years coordinated the investigation and field studies into the effect of hydro-electric operations on the fluvial and geomorphic processes of the Waikato River. This was part of the Assessment of Environmental Effects required to support Mighty River Power Ltd's resource consent application to operate the Waikato hydro-electric system.</p>
<p>Lambert Anderson Opus</p>	<p>Engineering</p>	<p>BE Civil, FIPENZ, CPEng (Civil &amp; Management), MNZSOLD, ANZIM.</p> <p>Employed by Opus International Consultants Ltd as a Principal Consultant since 1995 and before that as Resident Engineer for the construction of 3 hydroelectric schemes in New Zealand.</p> <p>42 years professional experience as a Civil Engineer in New Zealand. Specialises in construction, dam and river engineering.</p>
<p>Greg Saul Opus</p>	<p>Geotechnical</p>	<p>CPEng. New Zealand, Master of Science (Geomechanics and Engineering Seismology) and Diploma of Imperial College, Bachelor of Engineering (Civil), University of Canterbury, New Zealand Certificate of Engineering (Civil), 1977, Wellington Polytechnic.</p> <p>26 years professional experience as an engineer in New Zealand/overseas.</p> <p>Specialises in geotechnical engineering for infrastructure projects.</p>

<p>Vince Dravitzki Opus</p>	<p>Noise</p>	<p>Bachelor of Science (Chemistry) (Hons). Member of NZ Acoustics Society; Member of Australia and New Zealand Clean Air and Environment Society. Assessment of the environmental impact with respect to noise, of more than 25 significant infrastructure projects. Depending on the project these assessments comprised a number of stages including: the measuring and modelling of noise levels; the evaluation of changes in noise level, and the resultant impact on adjacent populations in relation to recognised guidelines; the presentation of specialist noise evidence at Council and Environmental Court hearings; and post construction noise measurements to validate performance.</p>
<p>Peter Cenek Opus</p>	<p>Vibration</p>	<p>First class honours Bachelor of Mechanical Engineering degree from the University of Canterbury and a Master of Engineering Degree from the Royal Melbourne Institute of Technology. Member of a number of professional associations including the Institution of Professional Engineers New Zealand, the Structural Engineering Society New Zealand and the World Road Association (PIARC). Since 1982 has worked for Opus International Consultants Ltd and its predecessors Works Consultancy Services and Ministry of Works and Development as a research engineer at their Central Laboratories, specialising in the fields of industrial aerodynamics, vehicle-road interactions, road asset management, and vibration analysis and monitoring. Over the past 28 years, involved with consultancy and research work related to monitoring and analysing the effects of induced structural vibrations. This work has included: interpreting the results of measured wind and traffic induced vibrations in terms of potential structural damage and human comfort, assessing the effectiveness of vibration isolation systems fitted to mechanical plant through “before” and “after” monitoring programmes, conducting extended monitoring programmes to determine whether or not resulting floor vibration levels are within specified operating levels for vibration sensitive equipment, such as computers and medical/operating theatre equipment and quantifying the magnitude of ground - borne vibrations generated by equipment used in road construction as part of a NZ Transport Agency research project.</p>
<p>Alice Bradley Opus</p>	<p>Freshwater ecology</p>	<p>Bachelor of Science degree (Zoology) and a Master of Science (Hons) in Zoology from the University of Canterbury. Six years experience of professional experience in the area of freshwater ecology and environmental science. Previous work: Environmental Officer for Oceana Gold in Otago and freshwater ecologist and environmental</p>

		<p>scientist for Kingett Mitchell Ltd / SEM NZ Ltd.</p> <p>In 2001-2002 undertook research on some streams affected by drainage from the Brunner Coal Measures as part of MSc thesis. Although her studies did not specifically include the waterways affected by HDL's proposal, she became familiar with the area and published research relating to the topic.</p>
<p>Wendy Hoddinott Opus</p>	Landscape	<p>Bachelor of Social Science and a Masters in Landscape Architecture.</p> <p>Three years professional experience as a Landscape Architect.</p> <p>Peer review provided by David McKenzie - practiced as a landscape architect for 27 years. For 25 of these years corporate member of the New Zealand Institute of Landscape Architects Inc and a Fellow of the Institute. Familiar with the likely landscape and visual effects of hydroelectric developments having assisted Contact Energy, King Country Energy and Gore District Council in an auditing role for Trust Power's proposed Kaiwera Downs Wind Farm.</p>
<p>Jenny Webster-Brown GEOKEM</p>	Geochemistry	<p>BSc (Hons) in Geology and Chemistry from the University of Otago and a PhD in Geochemistry from the University of Western Australia.</p> <p>25 yrs experience as a professional geochemical consultant, working initially for CSIRO in Australia, then for DSIR, ESR and most recently GEOKEM and University of Auckland in New Zealand.</p> <p>In recent years, this has included undertaking technical reviews for Environmental Waikato and West Coast Regional Council on the water quality impacts of mining activities, and for Watercare Services Ltd on the effects of geothermal discharge into the Waikato River, and providing associated expert testimony where required.</p> <p>28 yrs research experience, specializing in factors affecting the behaviour of trace elements in natural freshwater environments, particularly those affected by geothermal and mining effluents. This research includes the use of experimental methods and geochemical computer modelling to predict trace element concentrations, toxicity, transport mechanisms and fate.</p>