

# MINUTES

**TITLE:** Environment & Planning Subcommittee  
**DATE:** Monday, 1 and Tuesday, 2 August & Friday, 16 September 2005  
**TIME:** 9.30 am  
**VENUE:** Takaka Fire Station, Motupipi Street, Takaka

**PRESENT:** Crs E M O'Regan (Chair), N Riley and Dr B Cowie

**IN ATTENDANCE:** Co-Ordinator Resource Consents (R Lieffering), Consent Planner Water (N Tyson), Administration Officer (B D Moore)

**1. ELECTRIC WATERS LIMITED, HYDRO ELECTRICTY POWER STATION, ONEKAKA RIVER, GOLDEN BAY – APPLICATIONS RM041156, RM041157, RM041158 AND RM041159**

**1.1 Application Details**

The applicants sought consent to undertake the following activities associated with the operation and maintenance of a hydro electricity power station on the Onekaka River:

- RM041156** To dam the Onekaka River and store water behind an existing dam structure.
- RM041157** To take water at a rate of up to 500 litres per second from a storage pond located on the Onekaka River for hydroelectric generation.
- RM041158** To discharge water from a hydroelectric power station via the tailrace at a rate of up to 500 litres per second to the Onekaka River.
- RM041159** To discharge up to 10 cubic metres of accumulated mineral debris per year via a scour valve through the dam (to maintain its storage capacity) to the Onekaka River.

The above applications are to replace consents NN870870, NN870871, NN870872 and NN900160, which expire on 31 May 2005, but these consents may continue to be exercised past this date while the replacement applications are decided.

Under the Tasman Resource Management Plan, application RM041156 (damming of water) and RM041157 (taking and use of water) are controlled activities, while application RM041158 (water discharge) is a discretionary activity. Application RM041159 (discharge accumulated mineral debris) is a discretionary activity.

## **1.2 Consideration of Late Submissions**

The Chairman, Cr O'Regan, ruled that the late submissions received from Mighty River Power, J Duder and J Turnbull were not accepted because of lateness.

## **1.3 Presentation of Application**

Mr N A McFadden, Solicitor for the applicant, tabled and read an introductory submission. He reminded the hearing panel that the dam is in existence and was lawfully established over 80 years ago. Mr McFadden submitted that a 35 year term of consent is appropriate. He directed the attention of the hearing panel to the draft conditions of consent appended to his submission, relating to the four consents applied for.

Mr C B Kidson, a Civil Engineer and shareholder and director of the applicant company, tabled and read a statement of evidence, including minor amendments. Mr Kidson outlined the history of use of the dam and the resource consent process which had been carried out particularly from 1990 to the time when electricity generation started in October 2003. He said to get the scheme from its inception to its commissioning, has cost \$2.3 million and has taken 15 years. He said the scheme is a substantial contributor to the provision of electric power for Golden Bay. He said that 5,000 m<sup>3</sup> of gravel from behind the dam had been trucked out of the dam and offsite at considerable extra expense instead of being released over the dam in accordance with a previous permit obtained.

Mr B W Leyland, a shareholder and an Electrical Engineering Consultant for the applicant, advised that operation of the system is being changed to reduce water wastage. He said if the power station is shut down for any reason, the bypass flow of the dam will be increased by approximately 50 litres per second and then regulated as necessary to maintain a flow of at least 50 litres per second downstream of the power station. The proposed conditions of consent reflect that proposed operation. He said fluctuations of flow that have occurred downstream of the station in dry periods, will no longer occur. He said that the hydro electric supply from the dam can supply 10-20% of the power supply for the whole of Golden Bay. He said he believed the reduced Fonterra plant will require less power usage. The control system at the power station has been set so that it now takes 35 minutes for the station to go from no load to full load and vice versa.

Mr A M Hewitt, a Hydrological Consultant for the applicant, read a statement of evidence. He advised that the Onekaka water level recorder was located on the stream just above where it joins Ironstone Creek. He said that because of the frequent, and at times intense, rainfall, coupled with the steep topography, flows down the stream are of a flashy nature, with frequent pressures and floods. He described flows in the Onekaka Stream and provided recent gauging results. Mr Hewitt commented on the proposed required residual flow at the 50 metre point below the dam and the volunteered draft conditions of consent. He said that the proposed dam flushing of 10 m<sup>3</sup> of sediment per event, should not be noticeable when discharging into a flood of over 3,000 litres per second.

Mr McFadden advised that a telephone message had been received from Mr P Malone who was unable to attend this hearing because of illness and asked that his written submission in support stand.

Dr J Stark, a scientist at the Cawthron Institute, tabled and read a statement of evidence on the ecology of the Onekaka River and the environmental impact of the small hydro-electric scheme located on the river. Dr Stark described his particular areas of expertise to include freshwater macro invertebrate ecology, biological impact assessment and monitoring using invertebrates. Dr Stark had produced a freshwater ecological assessment of environment effects for Electric Waters Limited hydro electric scheme on the Onekaka River and this report dated August 2004 had been submitted with the applications. Some deficiencies in that report had been addressed in the 2005 monitoring report and in this evidence.

Dr Stark said that he believed that the minimum flow of 30 litres per second at the recorder and 50 litres per second downstream of the tailrace discharge, together with a 15 litres per second per minute limitation on the rate of change of flow, provide an appropriate level of environmental protection for fish and invertebrate populations in the river. He said that in his opinion, the fluctuating flows downstream of the tailrace discharge will not be of sufficient magnitude to cause noticeable adverse environmental effects. He said that the proposed removal of accumulating sediment from behind the dam, via a scour valve, on average 10-12 times per year, with the proposed limits, is the most environmentally acceptable option available for the removal of this material. He said that annual monitoring is appropriate considering the small size of the scheme.

The applicant's presentation was interrupted to allow some submitters to make their presentations.

## **2. PRESENTATION OF SUBMISSIONS**

A submission from Network Tasman Limited in support of the applications was presented by Mr C Starnes. Mr Starnes explained how the national electricity grid is in a fragile state with capacity problems. He said there is a growth in the demand for electricity and spoke about the government policy on distributed generation. He said that hydro electricity is a renewable energy source and is consistent with the government's carbon emission reduction policy. He said that the Onekaka Dam will provide emergency electricity support and adds to regional self-sufficiency. He said that the low operating costs of facilities such as Onekaka hydro assist with their economic operation.

Mr Wensley supported the applicant and said that minimum flow requirements have a significant adverse financial effect on the profitability of small hydro electricity schemes. He said that the minimum flow needs to be considered against the environment and good hard science.

Ms Deb Martin introduced the submission of the Royal Forest & Bird Protection Society. She raised a point of order regarding the late circulation of the 2005 monitoring report prepared by Dr Stark. Ms Martin stated that this report was circulated by e-mail on Friday and as such only gave submitters the weekend to review it and that the requirement of Section 92 of the RMA had not been met in that the report should have been available ten working days before the hearing. She stated that the Society could ask for an adjournment to the hearing, but instead asked that the Committee not give the Stark report too much weight due to its late circulation.

A submission from the Royal Forest and Bird Protection Society was tabled and read by Mr M Gavin. He referred to the relevant objectives and policies of the PTRMP and some consent requirements. He sought that the consent conditions ensure the indigenous biological diversity is maintained. The submitter sought that adequate mitigation measures be imposed to avoid adverse effects on aquatic eco-systems, indigenous fauna and natural character. Mr Gavin claimed that the fish species in the Onekaka River are significantly affected and in decline. He said that additional fish sampling is needed.

The submitter's submission was further supplemented by a presentation from Ms D Martin, a conservation officer for the Society. She sought a minimum flow to ensure the protection of the natural character of the river and its margins. The submission suggested conditions for flushing flows and discharge ramping rates. The submission requested a flow of 80 litres per second at a point 50 metres below the gorge. A maximum consent period of 15 years was requested.

The applicant's case was then continued with the reading of a statement of evidence by Mr D R Smythe, Registered Surveyor and Resource Management Consultant. He referred to a dewatering effect of the dam between it and the Ironstone confluence, a distance of some 1,500 metres. He said that there is a waterfall about 150 metres below the dam, which prevents fish passage further upstream and the bed of the river consists generally of boulders. He said that the minimum low flow of 50 litres per second, to be maintained below the tailrace outlet, is only likely to be required in drought conditions and this will ensure that any adverse effect on the river is no more than minor. He said that only the fine silty sand will be flushed from the dam via the Onekaka River during times of any storm events. He said this natural material would be a normal part of the Onekaka River ecosystem.

Mr Smythe said that a 20 year term of consent could apply pursuant to Schedule 31.1A and rules 31.2.2 and 31.2.3. However considering the conditions proposed by the applicant, a term of 35 years would be appropriate in this case. He said that the proposed conditions are robust and have been modified with the benefit of two years of existing operation of the power house. He said that there is an obvious and significant benefit to the district, through the production of electricity from this small scale hydro electric power scheme. He said that in this case it is conceivable that the benefit would outweigh the very minor adverse effects that might arise from the operation of the whole system. This completed the applicant's case.

The first day of the hearing adjourned at 5.45 pm and reconvened at 9.30 am on Tuesday, 2 August 2005.

A submission by Manawhenua Ki Mohua, the umbrella entity for the three Manawhenua iwi of Golden Bay was tabled and read by Mr Barney Thomas. He said he was a representative of Ngati Rarua Iwi Trust and a director of Wakatu Incorporation. He said that the three Golden Bay iwi had arrived in Golden Bay in the early 1800s and that the Onekaka River and marine estuary area have high values for iwi. The submission sought a minimum flow of 70 litres per second and that a flow of 30 litres per second should be the minimum between the dam and the tailrace.

The submission said that the culvert at Ironstone Stream obstructs fish passage and should be removed. A ford would enable fish passage and allow for a long term planting plan. Slips and bare slopes should be revegetated and the term of consent reduced to five years. The river flow needs to be managed in a way that minimises the impact of the fluctuations. Additional monitoring is required to determine the actual affect of the scheme on the river and fish life. All intakes should be screened to avoid eel and native fish deaths.

The submission claimed that the ecological integrity of the river has been compromised by the hydro electric scheme operation. The submission supported the evidence and submission of the Department of Conservation. The proposed mitigation fund of \$5,000 was supported.

Mr R T Lamb, a Civil Engineer, supported the applications and said that he hoped those persons opposing, had an energy generation system that has less environmental impact. He said of the proposed conditions that the term of consent should reflect the financial commitment of the applicants and to allow the proposal to be viable and that the term needs careful consideration. He suggested the implementation of a term of 35 years, for the purpose of financial security and predictability. Mr Lamb said that the annual review of conditions should be removed. He said that an annual debate should not be required as this is a disincentive for investment. Mr Lamb said that very little sunlight gets into the Onekaka Gorge and it is in a turbulent situation. He said that there is insufficient food to support a pair of blue ducks, other than on a temporary basis.

A statement of evidence from the Department of Conservation was tabled and read by Planning Supervisor, Mr R McMichael. Mr McMichael commented that the late circulation of the 2005 monitoring report by Dr Stark had left the Department with very little time to provide evidence against its findings and conclusions. He also commented that the provisions of Section 92 of the RMA required this information to have been available ten working days before the hearing.

The Department of Conservation's submission sought the maintenance of sufficient water flows in the Onekaka Stream. The tabled evidence listed the conditions that the Department sought to be applied to the consent. These included the control of flow fluctuations and a defined time period for ramping up and down tailrace discharge rates. A second statement of evidence from Department of Conservation was tabled and read by Mr M Rutledge and covered the instream values of the Onekaka Stream and proposed residual flows. He also described the issue of the effect of flow fluctuations on the river ecology, particularly in relation to fish population. The evidence described potential mitigation opportunities including monitoring and sampling of fish life.

The Onekaka Biodiversity Group, being an incorporated society was represented by three speakers. Mrs M Milne read a statement of evidence and said that the Society has a current membership of 30 and the group is involved in restoring and protecting the Onekaka River, the estuary and surrounding environment. The work of the group includes pest management. The group has carried out river monitoring to measure changes in river level and produced results of that work. The submitters sought a consent term of five years with a minimum flow of the river at 90 litres per second at a point just below the power house discharge. They sought that three monitoring sites be required. The evidence included a response to the staff report recommended consent conditions.

Mr R Stocker, Consulting Engineer, said he specialised in flood and river engineering. Mr Stocker spoke for Onekaka Biodiversity Group. He said that according to the hydrological supporting evidence produced by the applicant, the consent holder has been in breach of the consent by not letting sufficient water past the dam. He said that the total reservoir storage on the proposed consent is incorrect and the actual figure is 2,000 m<sup>3</sup>. The Onekaka Biodiversity Group had recorded a fluctuation in water level of about 240 millimetres and that the water level would have to drop only a further 100 millimetres before the Onekaka Stream stopped running altogether.

Dr T Osbourne, a Marine Ecologist, tabled and read a statement of evidence. Dr Osbourne spoke on behalf of Onekaka Biodiversity Group and said that she is a resident in Onekaka. The evidence referred to the ecological values of Onekaka Stream and it described how droughts but not floods have a significant effect on native fish densities. The evidence described the effects of sedimentation, potential habitat loss downstream of the tailrace and the effects on fish density.

Evidence was provided about the minimum residual flows and the effects of reducing the mean annual low flow and potential reduction of habitat for fish and invertebrates. The evidence suggested the compromise of a 15 year permit with 80 litres per second residual flow or a five year permit and a rigorous monitoring regime with a 30 litre per second residual flow.

Mr Alec Milne presented his submission on behalf of himself and his family. Mr Milne said that the family farms immediately downstream of the power scheme discharge. He spoke about the effects of the operation of the hydro electricity scheme on water quality and river life.

Mr Milne commented that the late circulation of the Stark report has meant that a qualified fish expert could not be engaged to respond to it. Mr Milne presented some comments provided by Mr I Jowett (NIWA) following a telephone conversation. Dr Cowie later advised that such evidence was "hear say" and as such could not really be relied on.

Ms P Angus said that her sole water supply for her residence is from the Onekaka Stream and she said that when silt occurs in the river this causes problems and blocks the house pump filter. She said that the operation of the hydro electric system causes the river to get cloudy and murky even on a sunny day. She said that she turns off the water supply in times of high rainfall. She asks that the applicant either correct the situation or provide an alternative water supply. She sought advance notice of any problems that will silt the river or cause the river to be shut off.

### 3. STAFF REPORT

Consent Planner Water, Mr N Tyson, spoke to his report contained within the agenda. He acknowledged that there has been non-compliance on occasions and that the applicant has indicated a willingness to co-operate with the community. He said that the applicant had advised that the storage area behind the dam is not to be increased. He said that a further consent would be needed to remove the Ironstone Creek culvert and form a new ford access but that this would be a separate application.

Mr Tyson referred to the parts of his report that concerned residual flows and river water fluctuation. He spoke to the proposed conditions of consent contained within the draft consent forms attached to his report within the agenda. Mr Tyson amended the consent period to expire on 31 May 2025. Mr Tyson said that he had addressed the proposed conditions of consent sufficiently for the applicant to determine his level of acceptance.

### 4. RIGHT OF REPLY

Dr Cowie asked that the right of reply refer to the following items:

Mitigation funds; minimum flow/duration; alternative monitoring sites; telemetry flow data; section 107; consideration of bundling of the separate take and discharge consent; dam safety Building Act certification; annual review conditions; alternative extra monitoring site.

Cr O'Regan said that he believed that all those matters could be raised in a right of reply from the applicant.

Cr O'Regan directed that the right of reply from the applicant be delivered in writing within three weeks (by 29 August 2005). He said that this was then to be circulated to those people who appeared at the hearing and a letter be sent to other submitters advising that copies of the applicant's right of reply are available on request from the Golden Bay Service Centre.

The hearing was adjourned at 6.00 pm.

**Moved Crs O'Regan / Riley  
EP05/08/01**

**THAT the public be excluded from the following part of the proceedings of this meeting namely:**

Electric Waters Limited

**The general subject of the matter to be considered while the public is excluded, the reason for passing this resolution in relation to the matter, and the specific grounds under Section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:**

<b>Subject</b>	<b>Reasons</b>	<b>Grounds</b>
Electric Waters Limited	Consideration of a planning application.	A right of appeal lies to the Environment Court against the final decision of Council.

**CARRIED**

**Moved Crs Riley / O'Regan  
EP05/08/02**

**THAT for the purposes of discussing the application of Electric Waters Limited as an "In Committee" item, the Co-Ordinator Resource Consents be authorised to be in attendance as advisor.**

**CARRIED**

**Moved Crs Riley / O'Regan  
EP05/08/03**

**THAT the public meeting be resumed and that the business transacted during the time the public was excluded be adopted and that the following resolutions be confirmed in open meeting.**

**CARRIED**



**DATE:** Friday, 16 September 2005  
(Reconvened from a hearing held on 1 and 2 August 2005)  
**TIME:** 9.30 am  
**VENUE:** Takaka Fire Station, Motupipi Street, Takaka

**PRESENT:** Cr E M O'Regan (Chair), Cr N Riley and Dr B Cowie

**IN ATTENDANCE:** Co-ordinator, Resource Consents (R E Lieffering), Consent Planner, Water (N Tyson), Administration Officer (B D Moore)

## **2. APPLICATION RM041156, RM041157, RM041158, RM041159 – ELECTRIC WATERS LTD, ONEKAKA RIVER, GOLDEN BAY**

### **2.1 Presentation of Further Evidence**

The hearing reconvened on Friday 16 September 2005 at 9.30 am. The hearing had been reconvened to hear further evidence in relation to the late circulation of the monitoring report by Dr J Stark prior to the original hearing.

Ms T M Blythe of Onekaka Biodiversity Group spoke of the concerns that this Group has regarding the assessment of environmental effects and the evidence presented by Dr J Stark in Takaka during the hearing of 1 and 2 August 2005.

Evidence was tabled and read by Mr I Jowett, who has worked on NIWA's monitoring programme of the Onekaka River since 2003. Mr Jowett had been asked by the Onekaka Biodiversity Group to prepare evidence in relation to the research study that NIWA is carrying out in the Onekaka River. This evidence included a description of the study design and method that NIWA intends to use to detect whether the change in flow regime in the Onekaka River has affected fish populations. The evidence included a review of flood effects on native fish and Mr Jowett's assessment of the data that NIWA has collected to date.

Mr Jowett concluded that a reduction in instream habitat above Ironstone Creek, the flow fluctuation below, combined with the delayed effects of suspended sediment discharges in 2003 are, in his opinion, the most probable causes of the reduction in fish density. Mr Jowett said that he did not believe that any recent floods have been sufficiently catastrophic to affect fish populations. He said he proposed to continue the NIWA monitoring programme. He said that if factors other than hydroelectric operation are affecting fish densities then he would expect them to recover to the 2003 levels. If those fish densities stay at about half 2003 levels, he would conclude that it has been an effect of flow changes, due to power station operation.

Mr Jowett responded to questions of clarification from the hearing panel. He said he expected that the NIWA study of the Onekaka River will take a further two or three years to complete.

Ms D Martin of Golden Bay Branch, Royal Forest and Bird Protection Society of New Zealand Inc was present at the hearing and referred to a letter of 6 September 2005 from that Society advising that its concerns are adequately addressed by the presentation of the further evidence by Mr I Jowett.

Representatives of Department of Conservation, Mr R McMichael and Mr M Rutledge were present at the hearing. Mr Rutledge read a further statement of evidence from Department of Conservation and agreed with the further evidence presented by Mr Jowett at this hearing.

## **1.2 Right of Reply**

Mr N J McFadden, counsel for the applicant, tabled and read a written right of reply on behalf of the applicant. A new set of suggested conditions of consent was annexed to that reply. Mr McFadden also tabled and read a reply to the statement of evidence of Mr I Jowett.

Following the completion of the presentation of further evidence, the Subcommittee reserved its decision at 1.40 pm.

**Moved Crs Riley / O'Regan  
EP05/05/09/17**

**THAT the public be excluded from the following part of the proceedings of this meeting namely:**

Electric Waters Ltd

**The general subject of the matter to be considered while the public is excluded, the reason for passing this resolution in relation to the matter, and the specific grounds under Section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:**

<b>Subject</b>	<b>Reasons</b>	<b>Grounds</b>
Electric Waters Ltd	Consideration of a planning application.	A right of appeal lies to the Environment Court against the final decision of Council.

**CARRIED**

**Moved Crs O'Regan / Riley  
EP05/09/18**

**THAT for the purposes of discussing the application of Electric Waters Ltd as an "In Committee" item, the Co-Ordinator Resource Consents be authorised to be in attendance as advisor.**

**CARRIED**

**Moved Crs O'Regan / Riley  
EP05/09/19**

**THAT the public meeting be resumed and that the business transacted during the time the public was excluded be adopted and that the following resolutions be confirmed in open meeting.**

**CARRIED**

**3. APPLICATION RM041156, RM041157, RM041158, RM041159 – ELECTRIC WATERS LTD, ONEKAKA RIVER, GOLDEN BAY**

**Moved Crs O'Regan / Riley  
EP05/09/20**

**RM041156 (Water Permit – Damming of Water)**

**THAT** pursuant to the Resource Management Act 1991, the Tasman District Council **GRANTS** consent to Electric Waters Limited to dam (behind a dam structure) the Onekaka River for the purposes of hydroelectric power generation for a period expiring **1 October 2040**, subject to the following conditions:

**Site Details**

- |                                |  |
|--------------------------------|--|
| 1. Location:                   | <i>Onekaka River, Takaka</i>                                   |
| Legal Description:             | <i>Sec 1 SO 15230</i>  |
| River or Stream Being Dammed:  | <i>Onekaka River</i>   |
| Zone, Catchment:               | <i>Takaka, Takaka Catchment</i>                                |
| Storage Volume (cubic metres): | <i>5,000m<sup>3</sup> (total) and 2000m<sup>3</sup> (live)</i> |
| Map Location at Dam:           | <i>Easting:2483612 Northing:6047087</i>                        |

**Advice Note:**

This consent only authorises the “damming” of water and the dam structure behind which the water is being dammed and stored is authorised by a separate resource consent (RM050779).

**Continuation Flow Downstream of Dam**

2. The Consent Holder shall release sufficient water from the dam so that the instantaneous flow of the Onekaka River, as measured at the recorder site required to be operated in accordance with Condition 4, is at all times equal to or greater than 30 litres per second.
3. Notwithstanding Condition 2, in the event that the natural flow in the Onekaka River, measured no more than 50 metres upstream of the dam reservoir, is less than 30 litres per second, the instantaneous flow measured at the recorder site referred to in Condition 4 shall be equivalent to the natural flow rate into the dam reservoir. However, the Consent Holder may only reduce flows in the Onekaka River, as measured at the recorder site, to below 30 litres per second if the Consent Holder has measured the natural flow rate upstream of the dam reservoir to an accuracy of  $\pm 8\%$  and shown that these inflows are less than 30 litres per second. Under such conditions the Consent Holder shall measure the inflows into the dam reservoir at least weekly to determine when the inflows increase to greater than 30 litres per second, after which time Condition 2 shall apply.

**Advice Note:**

The intention of Conditions 1 and 2 is that when flows into the dam reservoir are greater than 30 litres per second (i.e. normal and higher flows), the Consent Holder must release sufficient water through the valves at the dam to ensure that there is always at least 30 litres per second of water at the recorder site. During extreme low flow conditions (i.e. when flows into the dam reservoir are less than 30 litres per second) the flows at the recorder site will be allowed to fall below 30 litres per second but the Consent Holder will need to show that the inflow into the dam reservoir is less than 30 litres per second (e.g. by way of manual flow gauging) before such lower flows at the recorder site are authorised.

**Onekaka River Flow Recorder**

4. The Consent Holder shall operate and maintain the existing flow recorder site on the Onekaka River at or about grid coordinates 2484323E 6047696N, located approximately 70 metres upstream of the confluence of the Onekaka River and Ironstone Creek. The flow recorder shall be capable of measuring flow rates to an accuracy of  $\pm 8\%$  and shall also be capable of recording the instantaneous flow of the river at intervals not exceeding 15 minutes.
5. The Consent Holder shall keep records of the instantaneous flow of the Onekaka River, as measured at the recorder referred to in Condition 4, every 15 minutes and shall make these records available to the Council's Environment and Planning Manager upon request.
6. The Consent Holder shall check the accuracy and calibrate the flow recorder site referred to in Condition 4, by way of manual gaugings, at least quarterly. Records of these checks and calibrations shall be kept and these records shall be provided to the Council's Environment and Planning Manager upon request.

**Monitoring**

7. The Consent Holder shall monitor the exercise of this consent in accordance with the Monitoring Programme specified in Schedule 1 attached to, and forming part of, this consent.
8. The Consent Holder shall prepare an annual report which summarises the results of monitoring undertaken in accordance with Condition 7. This report shall be submitted to the Council's Environment and Planning Manager by 1 July of each year. The report shall cover the preceding period 1 May – 30 April and shall include a trend analysis section in which trends in the monitoring (if any) are assessed and commented on. Such trend analysis shall be based on all monitoring data collected in previous years. The annual monitoring report shall also include a summary of the flows recorded in the Onekaka River at the recorder site referred to in Condition 4 as well as any manual gaugings (both for calibration of the recorder site and upstream of the dam reservoir) undertaken during the previous 12 month period.

**Advice Note:**

The Consent Holder is also required provide an annual monitoring report for each of the resource consents RM041157, RM041158 and RM041159. The Council acknowledges that a single monitoring report covering the monitoring and reporting requirements for all the resource consents associated with the power station may be presented and as such would fulfil the requirements of all the relevant reporting conditions.

**Downstream Water Users**

9. In the event that the exercise of this consent has an adverse effect on the reliability or quality of any domestic water supplies from the Onekaka River, the Consent Holder shall take all steps as are necessary to provide an alternative water supply to the affected user(s) during the period that their water supply is adversely affected. Such alternative water shall be of no lesser quality than existed prior to the water supply being affected, and otherwise be to the satisfaction of the Council's Environmental Health Officer, for the period during which such domestic supplies are affected.

**Review**

10. The Council may, within three months of the anniversary of the granting of this consent during the first three years after the granting of this consent, and thereafter at three yearly intervals (within three months following each third anniversary of the granting of this consent) review any or all of the conditions of this consent pursuant to Section 128 of the Resource Management Act 1991 for all or any of the following purposes:
  - a) to deal with any unexpected adverse effect on the environment which may arise from the exercise of this consent, including adverse effects on downstream landowners, downstream water users and/or on instream values. Any such review may include a review of the continuation flows required to be maintained downstream of the dam as specified in Conditions 2 and 3 of this consent; or
  - b) to require the adoption of best practicable options to remove or reduce any adverse effect on the environment.

## SCHEDULE 1

### MONITORING PROGRAMME

The Consent Holder (or its authorised agent) shall monitor Resource Consent RM041156 in accordance with the following monitoring programme.

#### 1. Sites

The following sites shall be monitored.

Site Number	Location Description
1	A 30 metre long reach of the Onekaka River located upstream of the ford on the property presently owned by A & M Milne. This reach is marked by a marker installed on the bank of the Onekaka River.
2	A 30 metre long reach of the Onekaka River located between the two markers installed downstream of the power station tailrace discharge point.
3	A 30 metre long reach of the Onekaka River upstream of the confluence of the Onekaka River and Ironstone Creek, between two installed markers.

#### 2. Monitoring Parameters and Methodologies

##### 2.1 Invertebrates

Single large macroinvertebrate samples shall be collected from each site referred to in Section 1.0 (above) using a hand-net (0.5 mm mesh). Sample collection shall follow "Protocol C1" and these samples shall be processed according to "Protocol P1 (Coded Abundances)" as outlined in "Protocols for sampling macroinvertebrates in wadeable streams" (Stark *et al*, 2001: New Zealand Macroinvertebrate Working Group Report No. 1. Prepared for the Ministry for the Environment. Sustainable Management Fund Project No. 5103). Macroinvertebrates shall be identified to the taxonomic level required for calculation of the Macroinvertebrate Community Index (MCI) or better.

Data analyses shall include calculation of taxa richness (*i.e.*, number of taxa per sample), EPT richness (*i.e.*, the number of **E**phemeroptera (mayfly), **P**lecoptera (stonefly) and **T**richoptera (caddisfly) taxa present in the sample), and the two biotic indices: MCI and SQMCI.

##### 2.2 Sediment

Stream substrate particle size composition (*i.e.*, % boulder, cobble, gravel, fine gravel, sand, silt), based upon visual estimation in 10 quadrants distributed at random within the wetted perimeter at each of the sampling sites referred to in Section 1.0 (above), shall be assessed.

## 2.3 Fish

The site locations and sampling methodology shall be those established by the National Institute of Water and Atmospheric Research (NIWA) in 2003 and those monitored in 2003, 2004, and 2005 and part of a research investigation into the effects of regulated flows on fish populations. (It should be noted that NIWA plan to continue this work until 2008).

At each site, a tape shall be laid out to ensure a 30 metre reach is being fished, but upstream and downstream stop-nets are not to be used. The entire reach shall be fished methodically (working back and forth across the river using a battery-powered backpack electric fishing machine) in an upstream direction, and the catch retained. This process shall be repeated until at least a 50% reduction in the most common species has been achieved. Usually this occurs with two passes, but sometimes three are required.

All fish shall be identified to species level (including elvers and small bullies), measured, and returned alive to the reach at the end of sampling. The relative abundances (abundant, common, occasional, rare or none) of koura shall be recorded. Five wetted width measurements taken along the reach shall be used to calculate the area fished, and the maximum water depth shall be recorded as a spot measurement.

The number of each species in each reach is estimated using the multi-pass data and standard equations. This shall be reported as fish per 100 m<sup>2</sup> or per linear metre of stream.

## 3. Monitoring Frequency

Macroinvertebrate community monitoring and sediment analyses shall be monitored **annually during either March or April**, following a period of at least 10 days of stable or receding flow conditions in the Onekaka River. The preceding weather conditions shall be recorded.

Fish populations shall be monitored **annually during either March or April for the first three years** (2006-2008 inclusive) and then at **five yearly intervals thereafter**.

## 4. Reporting

An annual report summarising the results of monitoring undertaken in accordance with Monitoring Programme shall be submitted to the Council's Environment and Planning Manager by 1 July of each year, as required by Condition 8 of this consent. The report shall cover the period 1 May – 30 April and shall include a section in which trends are analysed, based on all monitoring data collected in previous years. It should be noted that the annual monitoring report shall also include a summary of the flows recorded in the Onekaka River at the recorder site as well as any manual gaugings undertaken during the previous 12 month period.

It should be noted that an annual monitoring report for each of the resource consents RM041157, RM041158 and RM041159 are also required. The Council acknowledges that a single monitoring report covering the monitoring and reporting requirements for all the resource consents associated with the power station may be presented and as such would fulfil the requirements of all the relevant reporting conditions.

## RM041157 (Water Permit – Taking of Water)

**THAT** pursuant to the Resource Management Act 1991, the Tasman District Council **GRANTS** consent to Electric Waters Limited to take water from a water storage reservoir located behind a dam structure on the Onekaka River for the purposes of hydroelectric power generation for a period expiring **1 October 2040**, subject to the following conditions:

### Site of Taking and Use Details

- Location: *Onekaka River, Takaka*  
Legal Description (Take Point): *Sec 1 SO 15230*  
Legal Description (Use): *Lot 1 DP 19322*  
River or Stream: *Onekaka River*  
Zone, Catchment: *Takaka, Takaka Catchment*  
Map Location at (Dam) Intake: *Easting:2483612 Northing:6047087*

### Rate of Taking

- The rate of taking shall, at all times, comply with the rates specified in the following table:

<b>Natural flow in Onekaka River as measured immediately upstream of the dam reservoir (referred to as "Inflow")</b>	<b>Minimum and maximum rates taking authorised</b>
<30 L/s	No taking permitted
30-100 L/s	"Inflow" minus 20 L/s
>100 L/s	Minimum = 60 L/s* Maximum = 500 L/s

\* The minimum rate of taking need not be complied with during periods when the power station is shut down (refer to Conditions 3 and 4).

- Notwithstanding Condition 2, in the event of scheduled shutdowns of the power station, the Consent Holder is not required to take any water from the reservoir for power generation. However, the Consent Holder shall release at least 33 litres of water per second from the dam immediately downstream for a period of at least one hour before commencing the scheduled shutdown. For the purposes of this consent "*scheduled shutdowns*" only apply to those shutdowns that are pre-planned and carried out for necessary maintenance and repair and shall not be used for "*hydro-peaking*" purposes. The Consent Holder shall keep a record of all scheduled shutdowns including the date, the length of time of the shutdown, the purpose of the shutdown, and these records shall be made available to the Council's Environment and Planning Manager upon request.

#### **Advice Note:**

"Hydro-peaking" is the process where little or no water is intentionally taken from the reservoir for power generation and therefore the reservoir fills up.



4. Notwithstanding Condition 2, in the event of unscheduled or unplanned shutdowns of the power station, the Consent Holder is not required to take water from the reservoir for power generation. However, the Consent Holder shall release at least 33 litres of water per second from the dam immediately downstream within five minutes of any unscheduled shutdown. The Consent Holder shall keep a record of all unscheduled shutdowns including the date, the length of time of the shutdown, the cause of the shutdown, and shall make these records available to the Council's Environment and Planning Manager upon request.

## **Records**

5. The Consent Holder shall keep records of the instantaneous rates of taking from the dam reservoir and shall make these records available to the Council's Environment and Planning Manager upon request. The Consent Holder may use power generation figures as a surrogate for instantaneous rates of taking as provided for in Condition 7 of this consent. In the event that power generation figures are used as a surrogate for rates of taking, the Consent Holder shall keep records of the power generated by each of the two turbines within the power station.

### **Advice Note:**

The Consent Holder is also expected to keep records of the rate of discharge from the power station to the Onekaka River as part of resource consent RM041158 and as such only a single data set needs to be maintained as the rate of taking will always equal the rate of discharge.

6. The Consent Holder shall prepare an annual report which summarises the rates of water taken for power generation, based on the records required to be kept in accordance with Condition 5 and this report shall be submitted to the Council's Environment and Planning Manager by 1 July of each year. The report shall cover the preceding period 1 May – 30 April. The report shall also summarise the shutdowns (both planned and unplanned) that have occurred during the previous year and include a statement of the condition of the penstocks following an annual inspection.

### **Advice Note:**

The Consent Holder is also required provide an annual report for each of the resource consents RM041156, RM041158 and RM041159. The Council acknowledges that a single monitoring report covering the monitoring and reporting requirements for all the resource consents associated with the power station may be presented and as such would fulfil the requirements of all the relevant reporting conditions.

7. The Consent Holder shall, within three months of the date of commencement of this consent, provide to the Council's Environment and Planning Manager a report that shows the relationship between power generation and water flow rates through each of the two turbines in the power station. In the event that any modifications are made to either of the turbines which results in a change in its/their efficiency, the Consent Holder shall undertake further calibration tests and provide a revised "water flow rate – power generation" relationship and provide a copy of the new relationship to the Council's Environment and Planning Manager within one month. The Consent Holder may use this relationship as a surrogate measure of the instantaneous rate of taking.

## Downstream Water Users

8. In the event that the exercise of this consent has an adverse effect on the reliability or quality of any existing domestic water supplies from the Onekaka River, the Consent Holder shall take all steps as are necessary to provide an alternative water supply to the affected user(s) during the period that their water supply is adversely affected. Such alternative water shall be of no lesser quality than existed prior to the water supply being affected, and otherwise be to the satisfaction of the Council's Environmental Health Officer, for the period during which such domestic supplies are affected.

## Review

9. The Council may, within three months of the anniversary of the granting of this consent during the first three years after the granting of this consent, and thereafter at three yearly intervals (within three months following each third anniversary of the granting of this consent) review any or all of the conditions of this consent pursuant to Section 128 of the Resource Management Act 1991 for all or any of the following purposes:
  - a) to deal with any unexpected adverse effect on the environment which may arise from the exercise of this consent, including adverse effects on downstream landowners, downstream water users and/or on instream values. Any such review may include a review of the rates of take specified in condition 2, and/or a review of the release rates from the dam during shutdowns as specified in Conditions 3 and 4 of this consent; or
  - b) to require the adoption of best practicable options to remove or reduce any adverse effect on the environment.

## RM041158 (Discharge Permit – Discharge of Water to Water)

**THAT** pursuant to the Resource Management Act 1991, the Tasman District Council **GRANTS** consent to Electric Waters Limited to discharge water from a hydroelectricity power station to the Onekaka River for a period expiring **1 October 2040**, subject to the following conditions:

### Site of Discharge Details

1. Location: *Onekaka River, Takaka*  
Legal Description: *Crown River Bed adjacent to Pt Sec 19 SO15200*  
River or Stream: *Onekaka River*  
Zone, Catchment: *Takaka, Takaka Catchment*  
Map Location of Point of Discharge: *Easting:2484565 Northing:6047845*

### Rate of Discharge

2. The rate of change in flow, both in terms of the increase and decrease in the discharge from the power station tailrace to the Onekaka River, shall not exceed 15 litres per second per minute (15 L/s/min).

### Continuation Flows Downstream of Tailrace

3. The rate of discharge from the power station shall, at all times, comply with the rates specified in the following table:

Natural flow in Onekaka River as measured immediately upstream of the dam reservoir (referred to as "Inflow")	Maximum and minimum rates of discharge required and authorised
<30 L/s	No discharge permitted
30-100 L/s	"Inflow" minus 20 L/s <sup>(see Note 1)</sup>
>100 L/s	Minimum = 60 L/s <sup>(see Note 2)</sup> Maximum = 500 L/s

Note 1: Further restrictions apply, refer to Condition 7.

Note 2: The minimum rate of discharge need not be complied with during periods when the power station is shut down (refer to Conditions 4 and 5).

- Notwithstanding Condition 3, in the event of scheduled shutdowns of the power station, the Consent Holder is not required to discharge any water from the power station tailrace to the Onekaka River. However, the Consent Holder shall release at least 33 litres of water per second from the dam immediately downstream for a period of at least one hour before commencing any scheduled shutdown. For the purposes of this consent "*scheduled shutdowns*" only apply to those shutdowns that are pre-planned and carried out for necessary maintenance and repair and shall not be used for "*hydro-peaking*" purposes. The Consent Holder shall keep a record of all scheduled shutdowns including the date, the length of time of the shutdown, the purpose of the shutdown, and these records shall be made available to the Council's Environment and Planning Manager upon request.

**Advice Note:**

"Hydro-peaking" is the process where little or no water is intentionally taken from the reservoir for power generation and therefore the reservoir fills up.

- Notwithstanding Condition 3, in the event of unscheduled or unplanned shutdowns of the power station, the Consent Holder is not required to discharge water from the power station tailrace to the Onekaka River. However, the Consent Holder shall release at least 33 litres of water per second from the dam immediately downstream within five minutes of any unscheduled shutdown. The Consent Holder shall keep a record of all unscheduled shutdowns including the date, the length of time of the shutdown, the cause of the shutdown, and shall these records shall be made available to the Council's Environment and Planning Manager upon request.
- The Consent Holder shall, by 30 November 2005, install, maintain and operate a water level recorder in the dam reservoir. The water level recorder shall be capable of recording water levels at intervals not exceeding 15 minutes. The records from this recorder shall be made available to the Council's Environment and Planning Manager upon request.
- When the natural flow in the Onekaka River upstream of the dam reservoir is between 30 and 100 litres per second, the Consent Holder shall operate the power station as a "*run of the river*" scheme and the discharge from the power station shall therefore equal the inflow into the dam. "*Run of the river*" means that no "*hydro-peaking*" may occur and therefore there shall be no fluctuations in the water level within the dam reservoir, as measured by the water level probe referred to in Condition 6.

**Advice Note:**

The Consent Holder is reminded of the continuation flow requirements of Condition 2 and 3 of RM041156.

## Records

8. The Consent Holder shall keep records of the instantaneous rates of discharge from the power station and shall make these records available to the Council's Environment and Planning Manager upon request. The Consent Holder may use power generation figures as a surrogate for instantaneous discharge rates as provided for in Condition 10 of this consent. In the event that power generation figures are used as a surrogate for discharge rates, the Consent Holder shall keep records of the power generated by each of the two turbines within the power station.

### **Advice Note:**

The Consent Holder is also expected to keep records of the rates of water taken from the dam reservoir for power generation as part of resource consent RM041157 and as such only a single data set needs to be maintained as the rate of taking will always equal the rate of discharge.

9. The Consent Holder shall prepare an annual report which summarises the rates of water taken for power generation and the water levels in the dam reservoir, based on the records required to be kept in accordance with Conditions 8 and 6 respectively. This report shall be submitted to the Council's Environment and Planning Manager by 1 July of each year. The report shall cover the preceding period 1 May – 30 April. The report shall also summarise the shutdowns (both planned and unplanned) that have occurred during the previous year.

### **Advice Note:**

The Consent Holder is also required provide an annual report for each of the resource consents RM0411556, RM041157 and RM041159. The Council acknowledges that a single monitoring report covering all the monitoring and reporting requirements for all the resource consents associated with the power station may be presented and as such would fulfil the requirements of all the relevant reporting conditions.

10. The Consent Holder shall, within three months of the date of commencement of this consent, provide to the Council's Environment and Planning Manager a report that shows the relationship between power generation and water flow rates through each of the two turbines in the power station. In the event that any modifications are made either of the turbines which results in a change in its/their efficiency, the Consent Holder shall undertake further calibration tests and provide a revised "water flow rate – power generation" relationship and provide a copy of the new relationship to the Council's Environment and Planning Manager within one month. The Consent Holder may use this relationship as a surrogate measure of the instantaneous rate of discharge.

## Receiving Environment

11. Notwithstanding any other conditions of this consent, the discharge of water from the power station into the Onekaka River, as measured 10 metres downstream of the discharge point, shall not result in the production of conspicuous oil or grease films.
12. The discharge of water from the power station shall be operated so as to prevent scouring of the Onekaka River channel or river banks downstream of the point of discharge.

## Downstream Water Users

13. In the event that the exercise of this consent has an adverse effect on the reliability or quality of any existing domestic water supplies from the Onekaka River, the Consent Holder shall take all steps as are necessary to provide an alternative water supply to the affected user(s) during the period that their water supply is adversely affected. Such alternative water shall be of no lesser quality than existed prior to the water supply being affected, and otherwise be to the satisfaction of the Council's Environmental Health Officer, for the period during which such domestic supplies are affected.

## Review

14. The Council may, within three months of the anniversary of the granting of this consent during the first three years after the granting of this consent, and thereafter at three yearly intervals (within three months following each third anniversary of the granting of this consent) review any or all of the conditions of this consent pursuant to Section 128 of the Resource Management Act 1991 for all or any of the following purposes:
  - a) to deal with any unexpected adverse effect on the environment which may arise from the exercise of this consent, including adverse effects on downstream landowners, downstream water users and/or on instream values. Any such review may include a review of the rates of discharge from the power station specified in Conditions 2 and 3, and/or the rates of discharge from the dam during shutdowns as specified in Conditions 4 and 5 of this consent; or
  - b) to require the adoption of best practicable options to remove or reduce any adverse effect on the environment.

## RM041159 (Discharge Permit – Mineral Debris to Water)

**THAT** pursuant to the Resource Management Act 1991, the Tasman District Council **GRANTS** consent to Electric Waters Limited to discharge mineral debris from behind a dam structure to the Onekaka River in order to maintain an active water storage capacity of 2,000 cubic metres behind the dam for a period expiring **1 October 2040**, subject to the following conditions:

### Site Details

1. Location: *Onekaka dam, Takaka*  
Legal Description: *Sec 1 SO 15230*  
River or Stream: *Onekaka River*  
Zone, Catchment: *Takaka, Takaka Catchment*  
Maximum Rate of Discharge  
of Mineral Debris: *10 cubic metres per discharge event*  
*100 cubic metres per calendar year*  
Map Location of Discharge Point: *Easting:2483612 Northing:6047087*

### Discharge Details

2. The Consent Holder may only discharge mineral debris from behind the dam via the dam scour valve for a period not exceeding 2 hours and only when all of the following circumstances exist:

- i) the flow of the Onekaka River, as measured at the recorder site required to be installed and operated in accordance with Condition 4 of resource consent RM041156 (located approximately 70 metres upstream of the confluence of the Onekaka River and Ironstone Creek, Easting: 2484323 Northing: 6047696) exceeds 3,000 litres per second; and
  - ii) the water of the Onekaka River is naturally discoloured.
3. Notwithstanding Condition 2, there shall be no more than 10 discharge events in any calendar year.

## **Records**

4. The Consent Holder shall maintain a record of each discharge event including an estimate of the volume of mineral debris discharged, the date, time and duration of the discharge, the colour of the Onekaka River before the discharge started, and the flow recorded at the recorder site referred to in Condition 2(i). A copy of this data shall be provided to the Council's Environment and Planning Manager upon request.
5. The Consent Holder shall prepare an annual report which summarises the discharge of mineral debris from behind the dam structure and this report shall be submitted to the Council's Environment and Planning Manager by 1 July of each year. The report shall cover the preceding period 1 May – 30 April and shall be based on the records required to be kept in accordance with Condition 4.

### **Advice Note:**

The Consent Holder is also required provide an annual report for each of the resource consents RM041156, RM041157 and RM041158. The Council acknowledges that a single monitoring report covering all the monitoring and reporting requirements for all the resource consents associated with the power station may be presented and as such would fulfil the requirements of all the relevant reporting conditions.

## **Downstream Water Users**

6. In the event that the exercise of this consent has an adverse effect on the reliability or quality of any domestic water supplies from the Onekaka River, the Consent Holder shall take all steps as are necessary to provide an alternative water supply to the affected user(s) during the period that their water supply is adversely affected. Such alternative water shall be of no lesser quality than existed prior to the water supply being affected, and otherwise be to the satisfaction of the Council's Environmental Health Officer, for the period during which such domestic supplies are affected.
7. The Council may, within three months of the anniversary of the granting of this consent during the first three years after the granting of this consent, and thereafter at three yearly intervals (within three months following each third anniversary of the granting of this consent) review any or all of the conditions of this consent pursuant to Section 128 of the Resource Management Act 1991 for all or any of the following purposes:
  - a) to deal with any unexpected adverse effect on the environment which may arise from the exercise of this consent, including adverse effects on downstream landowners, downstream water users and/or on instream values. Any such review may include a review of the flow conditions and/or frequency of discharges authorised by this consent as set out in Conditions 2 and 3; or

- b) to require the adoption of best practicable options to remove or reduce any adverse effect on the environment.

## **REASONS FOR THE DECISIONS:**

### **General**

These applications have been considered subject to Part II (i.e. the purpose and principles of sustainable management of natural and physical resources) of the Resource Management Act 1991 ("the Act"), and Section 104 (and its relevant subsections) of the Act. A more detailed commentary on Part II matters is presented later in this decision.

The Committee heard a large amount of evidence, both from the applicant and its expert witnesses, as well as a number of submitters. The Committee acknowledges the input and effort that all parties have put into their evidence, and thanks them as it assisted greatly in evaluating the applications.

The Committee acknowledges that some submitters were disadvantaged by the late circulation of the most recent monitoring report prepared on behalf of the applicant by Dr Stark. Accordingly, we allowed further evidence on this report to be presented by submitters at the reconvened hearing on 16 September 2005. By reconvening the hearing the Committee believes that all parties have been given a fair opportunity to present their case and we were pleased that this was acknowledged by those submitters who appeared at the reconvened hearing.

The Committee also notes that there has been significant discussion between the applicant and some submitters outside of the formal hearing process. This has resulted in a recent change in the operation of the power station (including changes to much reduce the rate of change in the flow downstream from the tailrace). The Committee applauds this and trusts that this goodwill will be maintained in the future.

The two critical activities, that to dam and take water, are controlled activities and as such the Council must grant these consents. However, the Council has the ability to impose conditions and controls on a number of matters as outlined in Rule 31.2.2 and Rule 31.1.5 of the TRMP respectively (and also detailed in the Section 42A "officer's report" of Mr N Tyson). The Committee has considered all these matters and the conditions of consent for these two activities relate to these matters over which the Council has reserved its control.

The two discharge permits, although technically discretionary activities under the TRMP, are intricately linked with the controlled activities described above, particularly the taking of water. The Committee agrees with the applicant that it is an anomaly where the taking of water is a controlled activity, yet the subsequent discharge of that water back into the river is a discretionary activity. It would appear that the TRMP should have addressed such situations in a more consistent manner by making water that is taken as a controlled activity, and which will be discharge back to the same water catchment, also a controlled activity. It is partly in this light that the Committee has considered this discharge permit application and determined that it should be granted, subject to conditions.

The matter of the discharge of the mineral debris from behind the dam back into the Onekaka River being a discretionary activity is also considered to be anomalous. The sediment that is proposed to be discharged, although technically a “contaminant” under the Act, is natural material which would naturally move down the river catchment. The only difference in this case is that the mineral debris is being trapped behind the dam structure and the applicant wishes to release this material during high flows when the river would naturally be carrying a significant sediment load. It is partly in this light that the Committee has considered this discharge permit application and determined that it should be granted subject to conditions.

The application included authorisation for the “storage” of water behind the dam structure, however no resource consent is required for this activity and as such the water permit granted for “damming” does not include the storage of water.

At the hearing it was determined that the dam structure itself requires a resource consent under the provisions of Section 13 of the Act despite the fact that it has been in place for a long period of time. A resource consent for the dam structure was not specifically applied for nor was it included in the public notification of the applications. The applicant has, at the request of the Council, subsequently applied for a separate resource consent for the dam structure (RM050779) and this is currently being processed by the Council as a non-notified application. The Committee acknowledges, however, that all the information contained in the applications for the water and discharge permits included the relevant assessment of effects associated with the dam structure itself. Conditions on this fifth consent should relate to the structural integrity of the dam and matters relating to inspections and public liability insurance requirements.

One other matter that has been clarified has been the correct legal descriptions of the land on which the dam is situated, where the power station is located, and the discharge point (i.e. the Onekaka River). The correct legal descriptions have therefore been included in these decisions.

### **Comments on Evidence and Actual and Potential Effects**

As mentioned previously, the Committee heard a significant amount of evidence, both from a technical and anecdotal perspective, relating to the effects on the environment of the operation of the power station. The Committee makes the following comments and observations regarding some of the matters raised in evidence presented at the hearing.

### **Effects on Aquatic Communities**

One of the most contentious issues at the hearing was the effects of the power scheme on aquatic communities, namely fish and macroinvertebrates.<sup>1</sup>

---

<sup>1</sup> It was generally accepted that algal communities on rocks and stones in the stream were of little concern because they were sparse in the very shaded environment of the Onekaka River, and because they are regularly scoured out by high flows.



In natural circumstances a watercourse like the Onekaka River would be expected to contain diverse and “healthy” communities of both fish and invertebrates. In its upper reaches the catchment is largely unmodified, and although there is evidence that much of the vegetation was burnt or cut over at some stage, it is now in very good condition, and indeed is protected as part of Kahurangi National Park. We were told that the catchment, despite a history of modification, supports very diverse and healthy aquatic communities. Some 14 species of fish have been recorded from the river above the estuary, and 78 species of macroinvertebrate have been found during studies by the Cawthron Institute. The dam has been present for almost 75 years, and before the construction of the scheme would have had minimal effect as water would simply have flowed over it. The dam would have had no effect on fish passage, as there is a natural obstacle (a gorge with a number of high waterfalls) downstream that would have long prevented passage into headwaters.

Hydro schemes can affect fish and invertebrate communities in several ways, including:

- Low flows in a river or stream can affect strongly the amount and quality of habitat available.
- Flows that fluctuate strongly over short periods rapidly increase and then decrease the habitat available. This is a very unnatural situation to which biota cannot be expected to be adapted.
- Flood flows may be reduced. The main advantage of this is that the habitat becomes very stable; the main disadvantages are that the bed is not scoured and can become embedded with sediment, and that floods are necessary to trigger some biological responses such as fish migration.
- Sediment discharges can smother stream beds, greatly reducing invertebrate habitat and smothering fish eggs and larvae.

The first two of these effects certainly occur in the Onekaka River. Given that there is relatively little live storage behind the dam, the hydro scheme has negligible effect on flood flows in what is a high rainfall area in the catchment headwaters. Some sedimentation may have occurred, but the analyses of stream bed substrate composition provided to us by Dr Stark showed clearly there is no lasting adverse effect from any sediment discharges.

The scheme has led to artificially low flows in the reach of the Onekaka Stream between the dam and the tailrace discharge. The former consent required a minimum flow of 20 L/s be maintained at a point 50 metres below the dam. This has not been monitored. Rather, a monitoring site has been established at a more accessible site about 70 metres above the confluence of the Ironstone Creek. Monitoring here indicates that the Mean Annual Low Flow (MALF) before the scheme was operating was 61 L/s. Since the scheme began operating, the flow has fallen as low as 4 L/s, albeit for only one hour in winter, and the residual low flow has typically been about 20 L/s.

Similarly, the scheme has led to highly fluctuating flows in the reach of the Onekaka River below the tailrace discharge as the power station is run and then shut down to meet daily fluctuating energy demands and to build up storage in the dam reservoir. At the recommencement of the hearing it became clear to us that previously the power station had gone from “go to whoa” (and vice versa) in as little as three minutes.

In other words, in the worst case the flow downstream of the power station could have been reduced from about 550 L/s to about 50 L/s in several minutes. This was supported by the evidence of Mrs Milne, and from river level records collected by the Onekaka Biodiversity Group (OBG), which suggest that perhaps 10 fold variations in flow occurred very regularly downstream of the tailrace. While such rapid fluctuations would partly be attenuated by instream storage, and are within the bounds of current consent conditions, this is potentially very damaging to biota, particularly fish, as it is most unnatural.

We heard a great deal of sometimes conflicting evidence of what effect the operation of the power scheme has had on fish and invertebrate communities. In summary, this evidence was based particularly on the following facts:

- Fish abundance and, to some extent diversity, has been reduced since the scheme came into operation. In particular, koaro densities declined greatly between 2003 (pre scheme) and 2004 (post scheme).
- There was some small recovery in fish abundance between the 2004 and 2005 NIWA surveys.
- Stream macroinvertebrate communities are dominated by mayflies, caddisflies and stoneflies. The community is indicative of high habitat quality. There has been an apparent decline in both invertebrate densities and diversity at the two main sites monitored (above the confluence with the Ironstone Creek and below the tailrace discharge) since the scheme came into operation.
- According to analyses presented by Dr Stark, very few of the differences observed are statistically significant.

What has led to these effects occurring was discussed at length by Dr Stark for the applicant, Mr Jowett and Dr Osborne for the OBG and (exhaustively) by Mr Rutledge from the Department of Conservation (DoC). Dr Stark and Mr Rutledge are experienced freshwater biologists. Mr Jowett is a fisheries scientist and Dr Osborne is a marine ecologist.

We need not traverse in detail what those witnesses said here. But in essence:

- For the applicant, Dr Stark provided us with a reasonably compelling analysis that the effects observed are most likely due to a much greater incidence of significant flood events in the two surveys undertaken since the scheme was commissioned.
- Mr Rutledge and Dr Osborne attributed the changes to the effects of the scheme, particularly the low and fluctuating flows.
- Mr Jowett cautiously interpreted the change in fish density to being due to the reduction in instream habitat above Ironstone Creek, the flow fluctuations below the power station and the delayed effects of suspended sediment discharges in 2003. He particularly disagreed with Dr Stark that floods were the most likely cause of reduced fish densities; this was based on work he had undertaken in the Waipara River in North Canterbury.

## The Committee's Assessment

It is not possible to clearly link cause and effect in a situation such as this. This is somewhat unfortunate in that it provides such fertile ground for debate. After hearing all the conflicting views, and carefully considering the evidence, we have come to the following conclusions:

- We do not accept that the scheme has had adverse effects on stream invertebrate communities. While it may have had some effects, in our view these cannot be proven.
- We believe the most likely single factor leading to the observed reduction in fish density pre and post scheme is what have been frequent and very rapid fluctuations in flow downstream of the power station. As noted above, these could be as great as an order of magnitude in several minutes.
- We note that there has been greater incidence of floods in the two years since the scheme was commissioned. In our view this may have had an adverse effect on fish densities.
- In our view lower flows in the reach above the tailrace will have had little adverse effect on either fish or macroinvertebrate communities.

Our reasons for this are:

- Stream macroinvertebrate communities, as shown by the evidence of Dr Stark, can vary significantly even in samples taken from the same riffle at the same time. Apparent reductions in invertebrate densities pre and post scheme are most likely attributable to the greater incidence of flood events post scheme – it is very well established that floods have strong effects on macroinvertebrate communities in our rivers and streams.<sup>2</sup> We believe the analyses presented by Mr Rutledge and Dr Osborne suggesting that the scheme has had adverse effects to be flawed. This is because they are based on assumptions that stream invertebrate communities in such stream environments are inherently reasonably stable – an assertion that one of us rejects from wide experience working in similar streams.
- Very rapidly falling flows are highly unnatural in a watercourse such as the Onekaka River, and the rapid start up and shut down of the power station has caused these to occur regularly. Fish communities in particular cannot be adapted to rapidly falling flows.
- Fish communities are known to be affected by flood events in steep and fast flowing watercourses (such as those in the Grey River catchment). While some refugia will be present, the large flood that occurred in early 2004 may have forced fish out of the Onekaka catchment. The evidence of Dr Stark provides a reasonable argument for observed reductions in fish densities, particularly in 2004, being attributable to the size and occurrence of flood events. In other words it appeared to us to demonstrate some possible link between cause and likely effect.

---

<sup>2</sup> The change observed may also be an artefact of different sampling times; the sample collected prior to scheme commissioning in 2002 was collected in September when greater densities of young insects would be expected to be found, and because of this more taxa are likely to be collected.

- Much lowered flows between the dam and the tailrace discharge will have reduced the habitat available for fish in this reach. Fish access is however restricted by the presence of at least one high waterfall higher in the gorge, and of the species present only koaro (and perhaps long-finned eels) would have inhabited much of this reach in significant numbers. The relatively small loss of habitat certainly does not explain the reduced numbers of koaro in the Onekaka River. We also note that flows approaching those low flows resulting from the scheme will have occurred naturally during prolonged dry conditions in the catchment prior to the scheme being commissioned.

In making these findings we also make the following observations:

- There was some conflict in the evidence presented to us regarding blue ducks (whio), with various observations being made. We accept that blue ducks have, and may still be according to the Milnes, been resident in the catchment. Ample invertebrate food resources are present for blue ducks, but the size of the territories each pair inhabits will restrict numbers to low levels in any case. We believe the power scheme will only have a very minor effect on the potential blue duck habitat in the catchment.
- We heard from Mr Jowett that in the Waipara River droughts rather than floods affect fish communities. We find such comparisons of limited value as the waterbodies are so very different. The Waipara River, with which one of us is very familiar, is an open, bare, braided and unstable river, at least 100 metres wide, which is used for many irrigation takes and commonly goes dry in summer in some reaches. It would be difficult to imagine a watercourse more dissimilar to the Onekaka Stream than is the Waipara River. In this regard we think that qualitative studies undertaken in tributaries of the Grey River, published by Dr McDowall, that show a likely link between flooding and fish densities may be more relevant to the Onekaka River catchment.

In summary, we have concluded that the power scheme may have had adverse effects on the fish community of the Onekaka River, but the evidence for this is somewhat unclear. The new operating regime for the power station will, in our view, further mitigate any adverse effects that may have occurred.

The conditions on the consents granted require ongoing monitoring of fish and invertebrate communities in the catchment. If over the next few years, the evidence that there are adverse effects becomes more compelling, review conditions imposed on the consent will allow minimum flow and flow ramping conditions to be reviewed under Section 128 of the Act. We are strongly of the view that the Council should take a close look at this matter in about 2010.

### **Minimum Flows**

One of the matters about which we heard a great deal of evidence was what minimum flows should be imposed on resource consents to protect instream values. While most of the discussion focused on the reach between the dam and the tailrace discharge, there was also considerable discussion of an appropriate minimum flow below that discharge.

The applicant has, since August 1997, maintained a flow recorder site on the Onekaka River at a location about 70 metres upstream the confluence with the Ironstone Creek tributary. Mr Hewitt presented hydrological data collected at this site during the period August 1997 until the scheme began operating in November 2003. The mean flow was 468 L/s, the median flow 223 L/s, and the mean annual low flow (MALF) was 61 L/s. The highest flow recorded was estimated to be 12,657 L/s (12.66 m<sup>3</sup>/s, or cumecs). In the period since the power station was commissioned, the mean flow at the recorder site was reduced to 216 L/s, the median to 27 L/s and the flow which is exceeded 75% of the time was 21 L/s.

The current consent requires that a minimum flow of 20 L/s be maintained at a point 50 metres downstream of the dam. That requirement has never been enforced, and the information presented by Mr Hewitt suggests that this minimum flow has not been complied with at least 25% of the time. This is regrettable. Having said this, however, the applicant has recently taken steps to ensure that a minimum flow is provided for. Small outlet structures, each providing for a flow of about 7.5 L/s have been installed. This, along with the discharge from a small generator used to provide power, and seepage from the dam, will provide for some permanent flow downstream of the dam. There are also groundwater inflows further down the gorge (i.e. between the dam and the recorder site).

Mr Stocker, on behalf of the OBG, suggested another site, which he estimated to be some 50-60 metres below the dam, could be used to monitor minimum flow requirements. While we appreciate his suggestion, we do not think that it is either necessary or sensible to move the flow recorder site from that already established by Mr Hewitt above the Ironstone Creek confluence. There is a period of record from this site of nearly eight years, importantly six of them before the scheme began generating electricity, it is reasonably stable, and the site is now able to be telemetered to the Council network.

The minimum flow to be set at this point was advocated to be 30 L/s by the applicant. This was supported by the DoC, whereas the OBG and the Royal Forest and Bird Protection Society (F&B) sought a minimum flow of at least 80 L/s. Reasons for advocating the 30 L/s included that it is about 50% of the natural MALF and that it would provide for much of the habitat potentially available for long finned eels and red finned bullies. Reasons for seeking a minimum flow of 80 L/s included provision of greater potential habitat for koaro, and retention of natural character and amenity values.

After careful consideration we have decided that the minimum flow of 30 L/s at the recorder site sought by the applicant and supported by DoC is appropriate. Our reasons for this are as follows:

- Stream communities at the recorder site have remained in excellent “health” since the scheme was commissioned. This is despite the flow falling to very low levels on one occasion and despite the previous minimum flow conditions neither being enforced, nor apparently complied with. This certainly indicates that the community is resilient, and that a minimum flow of 30 L/s will provide for its ongoing provision and diversity.

- The upper reaches of the gorge are not accessible to fish. We accept that there will be some theoretical loss of fish habitat, notably for koaro, in the lower reaches above the tailrace. We do not consider this to be a significant adverse effect for two main reasons. First, the instream fish incremental methodology (IFIM) expresses in physical terms potentially available habitat. As Mr Rutledge reminded us, habitat is not necessarily filled by fish, and clearly in at least the last two years potential koaro habitat is far from saturated. We also note that in the case of koaro water velocities are the key factor affecting potential habitat, so potential habitat increases in almost a linear relationship with flow. A minimum flow of 80 L/s would still not provide a great deal of optimum habitat in the reach from below the large waterfall to the tailrace discharge. Second, as Mr Rutledge explained to us, a substantial proportion of the potential habitat available for long finned eels and red finned bullies is available at a flow of 30 L/s.
- The information Mr McFadden presented in his final submissions show that imposing a minimum flow of 80 L/s in this reach will have significant impacts on the financial viability of the power scheme, and its capacity to generate power for the local community. We do not consider the relatively minor benefits of providing more flow in a fairly short stretch of the Onekaka River outweigh the benefits of the extra power able to be provided with a minimum flow of 30 L/s.
- We accept that there will be some limited adverse effects on natural character and amenity values in the reach between the dam and the tailrace discharge. We discuss this more in our appraisal of Part II matters specified in the Act, but to summarise, we consider the scheme meets the overall test of sustainable management as defined in Section 5 of the Act, and there are no matters in Sections 6-8 of the Act that suggest to us the applications should not be granted or that a higher minimum flow is justified.

The other site about which there was some debate regarding a minimum flow being necessary was that below the tailrace discharge. The applicant initially proposed what we felt was a rather complex formula for determining this flow. We were pleased that in their right of reply they instead proposed an alternative approach. This was to maintain a flow of 60 L/s in the tailrace below the power station by generating at least 100 kilowatts (kW) at all times when the inflow to the dam is greater than 100 L/s. This would “guarantee” a flow of 100 L/s in the Onekaka River downstream of the tailrace discharge. The 100 L/s would be made up of the 30 L/s in the section above Ironstone Creek confluence (as required to be maintained at the recorder site), plus at least 10 L/s from Ironstone Creek, and at least 60 L/s from the tailrace discharge. Our understanding is that at such flows generation will be varied during the day to meet peak demands in the morning and evening, with less generation at other times to allow storage to recover behind the dam. By our calculations, there is about nine hours storage possible behind the dam at the full generation capacity.

The applicant also stated in their right of reply that when inflows to the dam are less than 100 L/s, they propose to operate the power scheme as a “run of the river” scheme. We took this to mean that storage in the dam will not be utilised to generate more power at the time of daily peak demand; rather the level of the storage pond behind the dam will be kept at a constant level and any surplus water over the 20 L/s used to provide for minimum flows below the dam will be used to generate power. By our calculations this situation will occur about 15% of the time.

The applicant also stated that when inflows into the dam were less than 30 L/s, that no water would be taken for power generation and all inflows would be discharged over or through the dam.

What the applicant did not propose was any suggestion as to the way that the Council or the applicant (i.e. the Consent Holder) would determine when the inflow to the dam is below 100 L/s. We considered that the best way of assessing this would be to place a water level probe on the dam to ensure that storage is not utilised in any way.

The third possible scenario presented by the applicant was that if inflow was less than 30 L/s, then all the flow would be passed down the river and no water would be taken and used for power generation. Such an occurrence is likely to be a very rare event, given that the natural 10 year low flow was calculated by Mr Hewitt to be 51 L/s at the recorder site. In light of this we decided that if such a low flow did occur, the onus would be on the Consent Holder to manually gauge the Onekaka River above the dam to prove that the 30 L/s minimum flow could not be provided at the recorder site. We do not expect this to happen, except in an extreme drought. We also consider that the flows be gauged on at least a weekly basis during such drought conditions to determine when inflows increase above 30 L/s again and power generation may then commence as "run of the river".

### **Fluctuating Flows**

As noted above we consider the very frequent and rapid fluctuations in flow below the tailrace (as a result of the discharge from the power station) may have had very significant effects on instream communities. The rate of change in flow may have been as high as 150 L/s per minute as the power generation started and stopped. To their credit, the applicant has recognised that this is a problem, and has volunteered a condition limiting the rate of change in flow, both in terms of an increase and decrease, to no more than 15 L/s per minute.

This will certainly be an improvement over the present situation where flows can fluctuate 10 fold over a short time, and we think that it will help mitigate possible adverse effects on stream communities. The OBG indicated to us at the recommencement of the hearing that they were pleased with this new proposed regime, and they produced graphs of river level changes before and after the change in discharge flow regime to illustrate the effects of this on river levels.

The effects of this more gradual change in flows, like several others such as the minimum flows for the gorge and the tailrace, can be expected to benefit biota in the Onekaka River, to at least a significant extent. This is one of the reasons we believe that some conditions on the consents should be reviewed in about 2010 once more monitoring information is available.

## **The Resource Management Act 1991 and Council Planning Documents**

### **Section 5**

This section of the Act defines sustainable management. We consider the present applications are consistent with the definition in the Act, and we note particularly that:

- The proposed take and use of water will allow Electric Waters Limited to continue to provide for their social and economic needs through the generation of power. It will also help enable the local community to provide for their needs through local generation in a part of the Tasman District (i.e. Golden Bay) where power often has to be "imported".
- The consents granted will not compromise the reasonable needs of future generations.

- Subject to the imposition of minimum flows, and controls on the “ramping rate” of flows below the power station, the proposed take and use of water will not have a significant adverse effect on the life supporting capacity of water or ecosystems.
- The potential adverse effects of the proposed activities can be adequately avoided or mitigated through the conditions imposed on the consents granted.

## Section 6

Section 6 lists seven matters of national importance that we must recognise and provide for in this decision. Three are potentially relevant to the present application.

Sections 6(a) and 6(b) require, *inter alia*, the preservation of rivers and their margins, and outstanding natural features, from inappropriate subdivision, use and development. This is potentially significant in this case as the power scheme is bounded by Kahurangi National Park. Ms Martin (for F&B) helpfully provided some case law that suggested this may be relevant to our considerations. As Mr McFadden for the applicant reminded us, all scheme assets, including the dam and the power station, are however outside the boundaries of the National Park. We concluded that as this was clearly quite deliberate and the development is not “inappropriate”.

Section 6(c) requires, *inter alia*, the protection of significant habitats of indigenous fauna. Witnesses told us that 13 species of native fish had been recorded from the Onekaka River catchment, including the threatened native giant kokupu in lower tributaries such as Dogan Creek and the Otere River. Mr Rutledge said that the Onekaka estuary was of national importance, and asserted to us that the river was of regional significance. As noted above, blue duck have occasionally been seen in the catchment.

We concluded from this information that at least parts of the catchment do provide significant habitat for indigenous fauna. However, we consider that this habitat will largely be protected by the conditions that we have imposed on the consents granted. In particular, the river above the power station provides only limited habitat, and the minimum flow below the station along with controls on the ramping rate, will, in our view, protect the habitat in the lower reaches of the river. There will be no effects on other tributaries, and effects on the estuary will be no more than minor.

## Section 7

This section of the Act lists a number of matters that we must have particular regard to. Six of these matters are of some relevance to the present applications.

The first two of these matters are kaitiakitanga and the ethic of stewardship. We heard a submission presented by Manawhenua ki Mohua, which is the umbrella entity for three iwi of Golden Bay (Mohua), Te Atiawa, Ngati Rarua, and Ngati Tama. The submission outlines the pathway through which these groups became the kaitiaki of this area (rohe) and part of their responsibility is to ensure that future generations have a better environment to live in. The Committee acknowledges this role. The submission clearly stated that there is overall support for the scheme and conditional support for the renewal of the consents.



Through the submission and evidence presented at the hearing, iwi did not specifically request to be involved in any ongoing monitoring of the resource consents. However, despite no such specific request from iwi, it is considered appropriate that iwi be kept informed of the effects of the operation of the power scheme by the Consent Holder and this would be a useful way in which iwi could exercise their guardianship in relation to these applications.

The next matter is the efficient use and development of natural and physical resources. Clearly the present application to take and use water meets this provision in the Act particularly well. An existing asset (the dam) has been, and will continue to be, utilised to generate electricity in an efficient manner.

We acknowledge that granting the applications will have some effects on amenity values, particularly in the reach between the dam downstream to the power station tailrace discharge. We consider this to be acceptable, particularly given the remote location of the activity.

Granting the present application to take and use water could have some effect on the quality of the environment. We are satisfied that any such effects can be mitigated by the imposition of minimum flow conditions and ramping rate restrictions on the consents granted.

The Onekaka River provides only very limited habitat for trout, and any effects on that habitat can be mitigated by the conditions imposed on the consents granted.

The final Section 7 matter is *“the benefits to be derived from the use and development of renewable energy”*. This is an important consideration in our granting the applications, particularly as the power scheme provides electricity for the Golden Bay area. Indeed, it is fair to say that the scheme does have some significant positive effects that we have considered in our overall decision on the applications.

## **Section 8**

The information available to us indicates that the present applications are not inconsistent with the Principles of the Treaty of Waitangi. We were not made aware of any taonga that need active protection that would be compromised by granting the applications subject to appropriate conditions.

## **Section 105**

As two of the applications are for discharges to the environment the Committee is obliged to have regard to the criteria in Section 105(1) of the Act. These are as follows:

- (a) *“the nature of the discharge and the sensitivity of the receiving environment to adverse effects;*
- (b) *the applicant’s reasons for the proposed choice; and*
- (c) *any possible alternative methods of discharge, including discharge into any other receiving environment”*.

The case law is that our role is to find whether, in proposing a discharge of contaminants, the applicant has given adequate consideration to alternatives that would avoid, remedy or mitigate the effects of the discharge of contaminants, and then made a reasoned choice. The Committee is satisfied that this is the case for both the consents sought that involve discharges to the environment, and notes that the effects of these discharges can be avoided or mitigated by conditions on the consents granted.

## **Section 107**

The Committee accepts that the occasional discharge of mineral debris (sediment) accumulated behind the dam could possibly result in a breach of some provisions of Section 107 of the Act, and in particular could lead to a conspicuous change in colour or clarity even during the high flows when it will occur. Such discharges are both temporary, and are associated with necessary maintenance, so the exemption provisions of Section 107(2) of the Act apply. Accordingly, we have not placed any Section 107 conditions on the discharge of mineral debris, although we have required the discharge to occur only at high flows when the Onekaka River will be discoloured in any case. However, lubricating oils and grease are present and stored in the power station and as such there is a very small chance that some of these may enter the water that is discharged back into the Onekaka River from the tailrace. We have therefore included a condition that prohibits conspicuous oil and grease films from being present 10 metres downstream of the discharge point (this being considered to be an appropriate mixing zone). We note though that the occurrence of such oils and grease films would be a very remote possibility but one that we felt needed to be addressed by the condition imposed.

## **Tasman District Council Planning Documents**

Mr McFadden and Mr Smythe, both on behalf of the applicant, and the reporting officer Mr Tyson, listed the relevant provisions from the proposed TRMP and provided a commentary on how the applications were consistent with the relevant objectives and policies of the plan. We have carefully considered these, and agree that the applications are generally consistent with the objectives and policies of this Plan. Certainly there are no provisions that weigh strongly against the present applications being granted on appropriate terms and conditions.

We also note that Mr Gavin, for F&B, provided an analysis of the provisions of the TRMP relevant to the applications which differed somewhat from that provided by both the applicant and Mr Tyson. In general terms we did not agree with Mr Gavin's analysis versus those of Messers McFadden, Smythe, and Tyson.

Several submitters suggested to us that the Consent Holder should provide an annual financial contribution to help offset the adverse effects of the electricity production. Some submitters drew a comparison with what they perceived as financial contributions paid by Cobb Power Limited. We first note that this perception is quite incorrect as there are no resource consent conditions requiring such contributions. Secondly, any such payment can be required to be paid only to the Council and only to mitigate effects of the scheme itself, not some extraneous programme.

Thirdly, the applicant pointed out that if relativity with the Cobb gifts were required, then a sum of only some hundreds of dollars would be involved and administrative costs of ensuring appropriate and accountable spending would leave very little for any practical use.

Given the small scale of the Onekaka scheme, we consider that it is far more appropriate to have the consent holder meet the considerable costs of the monitoring, reporting, and review conditions imposed because they directly relate to the scheme and will provide an increasing database of information which can be taken into account in future reviews.

We note that the discharges are benign. Even the discharge of the mineral debris from behind the dam is very much akin to natural processes. The greatest effect of the scheme is the reduced water flow between the dam and the tailrace and we have already given our reasons for allowing that situation. We do note, however, that no fund (however large) can affect that circumstance without negating the grant of these consents. For these reasons, and also acknowledging the beneficial effects of the production of clean energy in a relatively isolated area, we have chosen not to impose any conditions relating to financial contributions.

## **Conclusions**

The Committee has carefully considered all the evidence presented to it, and is satisfied that the proposals meet all the statutory requirements of the Resource Management Act 1991, in particular Part II matters (Sections 5-8), section 104 (Matters to be considered), section 105, and section 107 (Restriction on grant of certain discharge permits). Subject to compliance with the recommended conditions, the Committee is satisfied that the adverse effects of the activities can be avoided or mitigated by the imposition of conditions, and has therefore decided to grant the four resource consent applications before us, as detailed earlier in this decision.

We considered the main actual or potential effects of the activities to be effects on instream values (particularly biota), natural character and amenity values, and perhaps on downstream domestic water users. In this regard we drew the following conclusions:

- The effects on biota can be mitigated by the imposition of conditions, particularly minimum flow conditions and restrictions on the rate of change of flow from the power station.
- While there will be some effects on natural character and amenity values, the scheme is specifically excluded from the National Park which suggest such effects were contemplated and acceptable. We also note that the Act is not a “no effects” statute, and activities can be provided for provided appropriate conditions are imposed.
- A condition requires alternative provision of domestic water supplies by the Consent Holder should adverse effects occur.
- The power generated will have benefits for the local community.

## **Term of Consents**

The term of consent was a matter raised in a number of submissions and also by the applicant. There was a wide range of views on the appropriate term of consent but, in weighing up the evidence, the Committee considers that a longer term consent is appropriate in this case provided a robust review condition is placed on each of the consents.

The Committee questioned a number of submitters in terms of their opinion as to whether there were likely to be any long term cumulative adverse effects associated with the operation of the power station and the overwhelming response was that it is very unlikely that there would be any. However, such views were generally qualified by stating that further monitoring of the Onekaka River is required to verify this and that continuation flows and the operating regime of the power station should be able to be reviewed should adverse effects be detected. The Committee agrees with this and has included a number of review conditions which enable the Council to review both the continuation flow requirements as well as the discharge ramping from the tailrace should environmental monitoring warrant such a review.

We considered the recommendation of Mr Tyson (in his officer's report) for a 15 year term for all four consents. We note that the monitoring, reporting, and review conditions imposed give ample scope for a review, pursuant to Section 128 of the Act, should any unforeseen events occur or should any unforeseen adverse effects arise. We note the lengthy process the applicant endured in establishing a creditable and benign scheme and the difficulties of matching investment with such processes. We also place some emphasis on the benefits of the sustainable production of clean energy and encouraging such investment where that end can be achieved with minimal environmental effect. The Committee has therefore granted all the resource consents sought for 35 years.

**CARRIED**

---

**Confirmed:**

---

**Chair:**