

IN THE MATTER of
AND
IN THE MATTER

the Resource Management Act 1991

An application by MAJAC TRUST
to vary parts of the Buller River
Water Conservation Order relating to
the Gowan River.

**EVIDENCE OF ANDREW DONALD FENEMOR
on behalf of Tasman District Council**

Background

1. I am Programme Leader, Integrated Catchment Management, and Team Leader for the Nelson office of Manaaki Whenua Landcare Research, a Crown research institute. Prior to taking up this position with Landcare Research in 2002, I was for ten years the Manager Environmental Information for the Tasman District Council. I have a Masters degree in soil and water engineering, have worked for most of my professional career in water resource management, and am past president of the NZ Hydrological Society.
2. I acknowledge that I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note at [2005] NZRMA 193 and I agree to comply with it.
3. While employed by Tasman District Council, I represented the Council in discussions among the parties to the appeals against the recommendations of the Minister's Tribunal on the Buller Water Conservation Order, including discussions about flow provisions for the Gowan River. I and Council consultant John Bealing also presented evidence on behalf of the Council before the then Planning Tribunal inquiry into those appeals. My evidence related to the purpose and practicality of proposed flow and water quality restrictions and prohibitions for rivers in the upper Buller to be protected within the Water Conservation Order.
4. The Council's submission dated 10 September 2004 states that the Council's overall interest is to ensure that the Water Conservation Order, whether amended or not, is capable of clear and unambiguous interpretation. The purpose of my evidence is to address that interest. The outcome in my view needs to be an Order that is workable and contains provisions that can be clearly implemented, monitored and enforced.

Practical Implementation of Proposed New Rules

5. The TDC is responsible for deciding whether to grant or decline applications for water and discharge permits – not just a future resource consent application for the Majac hydropower proposal - which in the Gowan River must be consistent with the provisions of the Buller WCO pursuant to s217 of the Resource Management Act. I have reviewed the proposed new wording from the point of view of practical interpretation and implementation, and make the following points, while acknowledging that the applicant has said that alternative remedies which allow resource consent to be granted to the Majac proposal would be acceptable.
6. Firstly, the Gowan flow provisions in the current WCO were developed in concert with those that apply downstream in the mainstem Buller, where a change of no more than 10% of the naturally occurring instantaneous flow is permitted. The proposal in 8(3)(d) to allow an unlimited change in flow in the Gowan for natural flows above 9 cumecs is likely to breach the downstream flow limit in 8(3)(a) on an instantaneous basis, for any diversion and more so where there is any storage within the diversion scheme. This is because all provisions in the current Order refer to naturally occurring instantaneous flow. The flow-through time down the diversion channel will not be the same as down the main Gowan river channel, producing ‘spikes’ and ‘troughs’ in the flow hydrograph at times when diversion gates are opened, closed or their flows altered. Applicants for resource consent will need to be aware of the constraints that this may place on the operation of any diversion in the Gowan.
7. In proposed 8(3)(c), the term ‘balance Gowan’ is used, which presumably means the Gowan reaches above the diversion and below the discharge referred to in proposed clause (d). The same issue mentioned above is likely to arise in the ‘balance Gowan’ below the discharge, i.e. a breach of the 15% and 5% instantaneous flow limits, at times when the scheme diversion gates are opened, closed or their flows altered.
8. Proposed clause 8(3)(d) explicitly prohibits diversion or discharge in the 2km riverbed distance below Lake Rotoroa (just above the proposed Majac intake) and below its discharge in the lower 2km of the Gowan River. This conflicts with 8(3)(c) which using the terminology ‘balance Gowan’ seeks to maintain the current WCO provisions for the ‘balance Gowan’. As case law requires the most stringent rule to apply, clause 8(3)(d) would prevail and no other diversions or discharges would be able to be authorised above or below the Majac scheme; however, takes from the river, not regarded or operating as diversions, could be authorised, within the limits of clause (c). In this case, the ‘first in time, first in priority’ presumption in the Resource Management Act would govern Council’s decision on multiple applications. It seems important to me that neighbouring landowners, in particular, should not be prevented from applying to take or discharge small amounts of water that may be needed for future uses such as tourism developments, reticulated household water schemes and even small-scale production such as hydroponics.

9. Proposed clause 8(3)(d) appears to me to be impractical in seeking to exclude any diversion or discharge in the upper or lower 2km reaches; it would do this through denial of either resource consent or permitted activity status. Even the smallest diversion or discharge in the river, including those by neighbouring landowners and TDC as road reserve owner, would be prohibited under this proposed wording. The TDC resource consent database indicates that there is one water permit to take water and one discharge permit held within the Gowan currently, both under the name of the Gowan River Holiday Camp. The water permit applies to an unnamed tributary of the Gowan rather than the Gowan River, so I interpret proposed clause 8(3)(c) as not preventing renewal of this particular consent.
10. I note that the upper and lower 2km limits in proposed clause 8(3)(d) do not coincide with the project location cited in Mr Swan's evidence, where he describes and intake 2.2 km below the Lake Rotoroa road bridge and an outlet for the scheme 3.5km above the Gowan/Buller confluence.
11. I interpret proposed clauses 8(3)(c) and (d) together as allowing any number of diversions from and back into the Gowan River, or discharges, between 2km of Lake Rotoroa and down to 2km above the Buller confluence. The proposal would allow consent applications for a range of diversions and discharges, including hydropower proposals, to proceed within that middle reach, but it seems tailored explicitly to a Majac-type proposal rather than being drafted from the perspective of flow needs for rafting along the entire Gowan River, which is the way the rest of the Water Conservation Order is framed.
12. Proposed clause 8(3)(d)(ii) recognises rafting amenity in the Gowan, as the current clause 8(3)(c) does, yet contains no limit on the percentage or rate of flow able to be diverted from or discharged to the river. Prolonged diversion of most of the river flow is likely to change the character of the riverbed and riparian vegetation to the extent that the rafting amenity is reduced, because lower flows will reduce river depths and velocities and groundwater levels. Figure 1 attached shows Gowan River flow data (0-81 cumecs only) as recorded near the Lake Rotoroa outlet, compared with a residual flow hydrograph with the Majac diversion in place. Figure 2 is a frequency analysis of natural and residual flows for the full length of record 1934-1991. It shows that the residual flow down the Gowan under the Majac proposal would be at 9 cumecs or less for about 52% of the time.

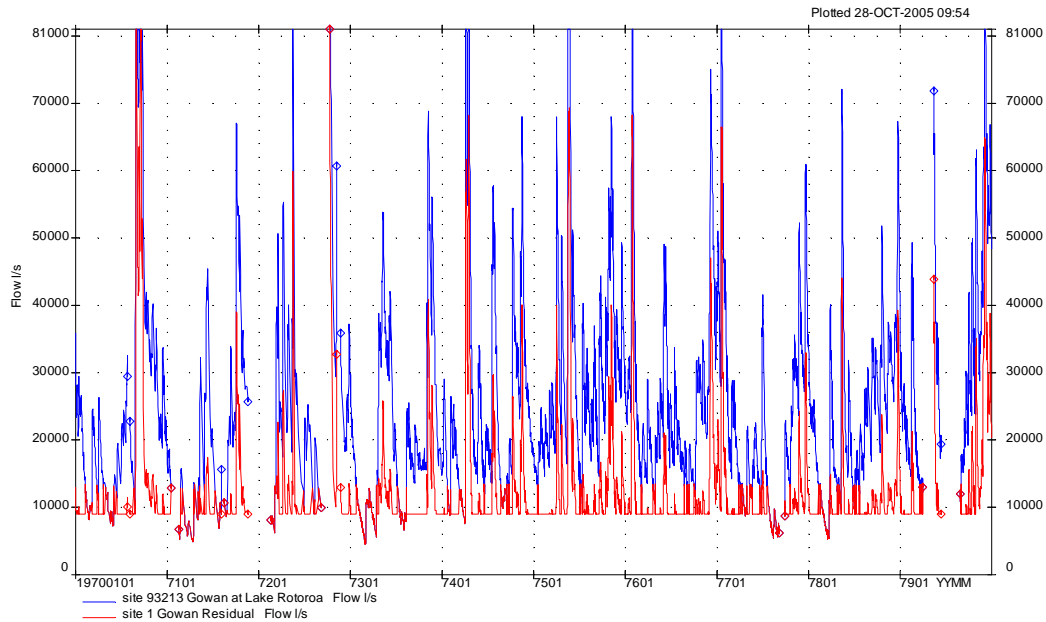


Figure 1: Gowan River recorded flows (blue) and projected residual flows under the Majac proposal (red) for 1970-1980, showing flows up to 81 m³/second only

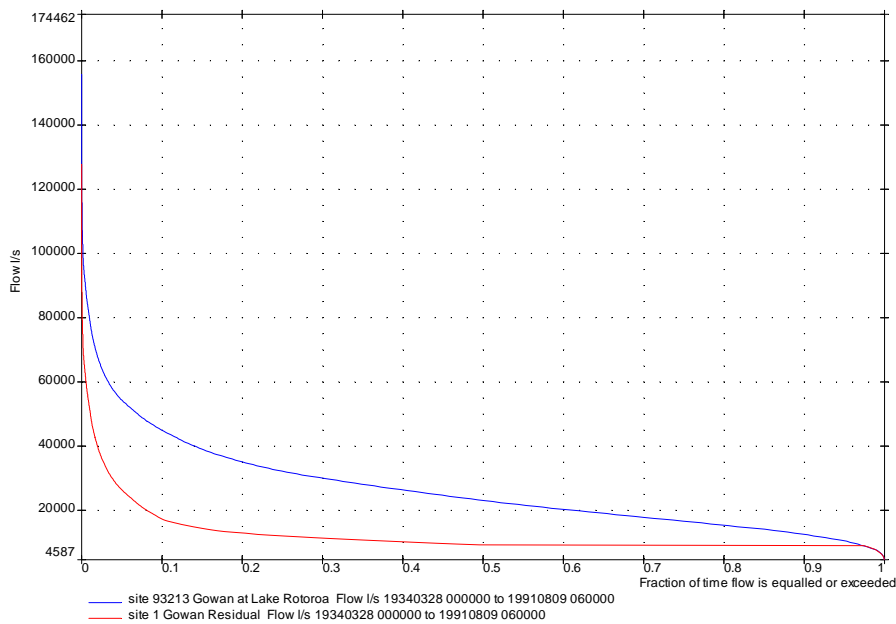


Figure 2: Frequency distribution of recorded (blue) and projected residual flows under the Majac proposal (red) for the period of record 1934-1991

13. I acknowledge that Majac has supplied an indicative resource consent application showing a maximum diversion of 67% of the flow but this application could well be changed by the time an application is formally lodged. Equally, there could be a similar application made for a diversion down the true left bank as well, such as the earlier Tasman Energy proposal which Mr Barrow may be able to comment upon. I

believe that if the Tribunal is of a mind to amend the Order, a percentage limit is required as applies throughout the remainder of the WCO, to prevent the possibility of the entire river being dewatered, and based on maintaining the amenity of the river for rafting.

14. Proposed clause 8(3)(d)(ii) is very specific in identifying a particular type of technological solution to the issue of flow control – ‘telemetry controls’ meaning a radio or telephone activated control system. A Water Conservation Order should in my view, be limited to prescribing flow, water quality and habitat requirements to protect the identified outstanding characteristics and features, rather than prescribing technological fixes which may in the longer term be superseded.
15. The same clause also prescribes a minimum period of one and a half hours for restoration of the ‘full naturally occurring instantaneous flow’. An approach more consistent with the principle described in the paragraph above would be to require flow to be restored for the period that rafters are using the river, or until they are out of danger of any changes in flow. Mr Swan’s evidence describes how river flows would be restored for rafting but not how the operator would know when rafting has finished.
16. Proposed clause 8(3)(d)(ii) refers to restoring the ‘full naturally occurring instantaneous flow’, yet it refers only to diversions and discharges, not takes which are not regarded as diversions. If there are any other takes occurring within the prescribed reach, it will be physically impossible to restore the ‘full naturally occurring instantaneous flow’ unless those are also turned off. This may prove impractical for every take and diversion as more are authorised in the longer term.