

## RESTORATIVE PROGRAMME FOR LOWLAND STREAMS

Questions and answers (by topic) arising from the meeting with water permit holders in the Irwell area, held in December 2007. This list will be posted on our website and updated as we receive new questions:

### Proposing conditions

1. How can consent-holders influence final conditions?

*All consent holders have the same opportunity to give us feedback on their proposed conditions. ECan staff and later, the independent commissioners (decision makers) will consider all reasonable proposals for conditions. This could include alternative water-use figures where sound technical evidence supports those figures e.g., different rainfall data, specific soil information, specific requirements for a certain crop etc.*

2. Does this consent review allow for potential changes in land-use that might increase its future value e.g. dairy conversions?

*No – the review is of the existing consent as originally applied for, so the annual allocation limit will be based on the water use specified in the original consent application, and in some cases, referred to in a consent condition. If the land use has changed or you would like to change it, you should discuss your individual situation with us to see if you need to apply for a change to your consent conditions.*

### Calculating annual volume

3. WQN9 is still going through the PNRRP hearing process and Federated Farmers and Irrigation New Zealand have expressed concerns about it in its present form. Scientists on behalf of ECan and INZ are in discussion over WQN9 and it may be that an agreed version is available in the next few months. Why not wait and offer the agreed version as an alternative?

*If in the next few months discussions between scientists result in an agreement, then that newly agreed method will be used for all consent reviews.*

*However, if agreement isn't reached within the next few months, it may be a number of years before the PNRRP becomes fully operative. The effects on lowland streams can be seen now and ECan needs to address them as soon as possible.*

*Since WQN9 is still part of the PNRRP hearing process, we have now proposed a more flexible condition in relation to the annual allocation limit which allows for the annual volume limit to be changed if the method changes through the planning process.*

4. How does land-use affect the WQN9 calculation?

*Some land-uses require more water than others, e.g., dairying and certain types of cropping.*

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5. If an adjustment is to be made to an allocation based on a system capacity that applies less than 4.5 mm of water, is that water lost to the consent-holder and if so, does it get reallocated?

*The annual volume allowed for by the WQN9 calculation requires a system capacity of at least 4.5 mm per day. Where system capacity is below that limit, an adjustment is made to line up the annual allocation with the maximum daily rate specified on the consent. So no water is 'lost', it is simply an adjustment to take into account the actual amount of water able to be applied.*

### **Cause of low flows in lowland streams**

6. Is ECan responsible for the over allocation of water in the Rakaia-Selwyn groundwater zone?

*ECan recognises that groundwater in the zone may be over allocated, and has taken steps to address that through the review process and by recommending that all new consent applications for groundwater takes in the zone be declined.*

7. Have other activities such as land drainage contributed to falling stream-flows?

*In some areas, drainage has reduced the sub-soil water holding capacity and so streams are affected during dry periods more quickly and dramatically.*

8. Is the reduction in rainfall in the Malvern Hills the true cause of reduced flows?

*ECan's technical analyses strongly support the position that climate change and increased abstractions have combined to reduce both groundwater levels and stream flows. Abstraction has had a significant adverse effect on spring-fed stream flows and on the reliability of supply for existing users. Of the two recognised causes, only abstraction can be managed.*

9. Flow reduction coincides with the increase in deep groundwater abstraction up country since the late 90's. There are now far fewer shallow takes, yet the effects on streams are worse. Will restrictions on shallow groundwater takes actually make any difference?

*Groundwater abstractions have increased dramatically since the early 1990s. The groundwater zone is effectively one connected water resource and so restrictions on any abstraction will make a difference. Restrictions on stream depleting takes will have almost immediate benefits. Later, stream restoration will be further enhanced by the longer-term measures we are seeking to implement in the zone e.g. adaptive management.*

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10. If all water takes contribute to lowering of groundwater levels and reduced spring-fed streamflows, why not focus on the major water users (the 30% of takes that account for 80% of the water)?

*If adverse effects on lowland streams and on groundwater are to be reduced, all groundwater takes in the zone need to be managed. Even though 80% of the water is abstracted by a small portion of consent holders, the remaining 20% of the groundwater resource is still significant, and includes stream depleting takes which are having a direct effect on stream flows.*

### **Subzones**

11. Groundwater conditions vary within this groundwater zone and so should ECan be considering splitting the area into subzones?

*We are looking at this for one area already where recharge from the Rakaia River appears to be the primary source for groundwater recharge. ECan policy allows for other “subzones” to be considered if there is reliable technical evidence in support of a subzone.*

### **Cost of review process**

12. How can costs be kept to minimum for consent-holders?

*Some parts of the process have the potential to generate more costs than others. Apart from the cost of installing meters and telemetry (where needed), proposing alternative conditions and getting these agreed outside of the hearing process would significantly reduce costs.*

13. What about the potential costs of individual “challenges” to WQN9? Would it be preferable to pursue changes through the NRRP hearing?

*There is a distinction between whether someone wants to challenge the basis for WQN9 or simply wants to propose alternative conditions. The former could be progressed through the WQN9 hearing process; the latter needn't be particularly difficult or expensive and could be done on an individual basis. Permit holders are entitled to propose specific alternatives to WQN9 to commissioners.*

14. What is being done to reduce the costs of an ECan generated process for water metering and is ECan still looking at bulk-buying flowmeters and selling them on or leasing them etc.?

*ECan has commissioned consultants to look at a number of options, one of which could be bulk purchase for example. Those options, together with a recommendation will be put before Council for a decision early in 2008.*

15. If someone installs a system now, will they get a “rebate” in the future if ECan does facilitate cheaper bulk purchasing?

*The option to back-date discounts to people who put systems in early would be considered by Council.*

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16. The letter to consent-holders referred to “any costs associated with reporting water-use information are also to be met by the consent-holder”. What was meant by associated costs?

*Associated costs are the on-going costs associated with telemetry (e.g. annual/monthly charges from the telemetry provider), and costs incurred by ECan receiving and managing the data.*

### **Technical**

17. In deciding on who is required to have telemetry, what if one consent-holder has four separate consents, each under the threshold and another has one consent for four separate wells that together take it over the that threshold?

*Each situation will be considered on its merits by ECan staff, then the independent commissioners. Telemetry trials are investigating multiple dataloggers reporting through one telemetry node as a cheaper option. ECan is working with industry representatives to promote this approach.*

18. Why the change on the “straight length of pipe” requirement?

*The straight length of pipe requirement applies to non-electromagnetic meters where we will still need to have an independent check of the mechanical meter. Electromagnetic meters are more stable and accurate and don't need an additional check.*

19. What about using power consumption at the pump as an indication of water-use?

*This has been looked at in the past but because factors such as water levels and pressures can also affect power use, it is considered by ECan to be too inaccurate.*

20. Define the difference between a stream and a drain in the context of this review.

*Both contain surface water and can have ecological values. Through the reviews, ECan is seeking to protect or restore flows in any streams or drains with ecological values.*

21. What has changed since consents were issued, so that some consents are now considered stream depleting?

*Our hydrogeological knowledge is increasing all the time. Some older consents pre-date evidence of reduced flows caused by abstraction. The stream-depletion classification and calculation method are based on the best information currently available.*

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22. Can water be depleted from a drain when it only flows occasionally and usually when no irrigation is taking place?

*Even though a drain may only flow occasionally, groundwater abstraction can still lead to depletion effects. For example, 'shallow and close' abstractions can hasten the formation of dry reaches. 'Deep and distant' abstractions can cumulatively prolong the period when a reach is dry. It is this latter effect that is often still evident even when nearby abstractions are not occurring.*

23. Will the revised environmental flows take account of natural hydrology and what effects will changes have on reliability of supply?

*The Canterbury Regional Policy Statement (RPS) and the proposed Natural Resources Regional Plan (NRRP), Variation 1, provides the relevant framework for determining environmental flow regimes. Determining the flow or water level regime for a water body involves weighing the needs of instream and out-of-stream uses (including reliability of supply).*

*An adequate level of protection needs to be provided for the instream values. An "adequate" level of protection would set a flow regime that provides sufficient water to ensure that the aquatic system is maintained in a healthy state, and is self-sustaining and resilient enough to withstand stress and natural fluctuation.*

24. When will the revised flows be made public?

*Environment Canterbury has engaged technical advice in setting the environmental flows and seeks the views of local communities regarding the technical findings.*

*The flow reviews are still in the community consultation stage. Once flows are ready to be recommended to the Council, this information will be made available and will be publicly notified as a variation to the PNRRP.*

### **Implementation**

25. Will there be some flexibility over the date meters must be installed and recording/transmitting data?

*Yes. At this stage ECan's proposed dates are September 2008 for the first group of consents. However, ECan understands that it takes time to get meters installed, and will reconsider this date again in April if the consents under review have not been finalised. The intention is to provide 6 months prior notice of the date by which water meters must be installed and operative.*

26. Are there sufficient meters and installers to do the job in the stated timeframe?

*Yes. Feedback from distributors and installers indicate that they are ready to meet the demand that will arise from this programme and from the proposed National Environmental Standard for water meters.*

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27. Why is a response form enclosed with proposed conditions?

*The response form outlined a series of options to allow you to comment on the conditions proposed for your consent, and tell us if we have the right details for each consent. Options provided on the response form include:*

- *accepting or rejecting ECan's proposed conditions,*
  - *one to one meetings with ECan staff,*
- correcting the information used to determine conditions, and proposing alternative conditions accordingly.*