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## **Report 00.535**

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Report to Environment Committee  
from Jon Marks, Section Leader, Resource Information

### **Annual Surface Water Hydrology Report 1999**

#### **1. Purpose**

To inform the Committee of the completion of the Annual Surface Water Hydrology Report and to summarise its key findings.

#### **2. Background**

The Council monitors the Region's hydrology for the following reasons:

- To fulfil its obligation to monitor the state of the Region's environment (Resource Management Act 1991);
- To record flooding and associated hazards (Civil Defence Act 1983, Soil Conservation and Rivers Control Act 1967);
- To monitor the effectiveness of policies, plans, consents, and other management;
- To describe the Region's hydrological resources, including opportunities and limitation on their use; and
- To identify issues which may require a management response.

The information is used internally (especially for consent applications, plan preparation and State of the Environment reporting) and is available to the public and external agencies.

The Annual Surface Water Hydrology Report presents the following information:

- Regional hydrological summary
- Analysis of the data
- Identification of data trends
- Comment on exceptional events
- Description of special projects

### 3. **Significant Findings**

#### *Rainfall*

The year 1999 began with a strong La Nina climate pattern that persisted through summer and autumn before weakening during winter, only to strengthen again towards the end of the year.

1999 had the most occurrences of anticyclones since records began in New Zealand. These produced more frequent easterlies over the North Island and weaker westerly winds and resulted in dry, warm conditions.

The Region's 1999 annual rainfall was not significantly different from the annual average over the bulk of the Region.

#### *River Flows*

River and stream flows across the Region were below average. Low flows were more severe in the summer of 1998/1999 than the same period during 1999/2000.

There were no significant floods during 1999. No monitored river recorded above a 2-year return period flow. However, several roads were closed in the lower Wairarapa Valley between 21 August and 23 August because of flooding. While none of the tributaries experienced significantly high flows, the combined volumes caused a significant flow in the lower Ruamahanga Valley.

### 4. **Communications**

Copies of the report are available to councillors on request.

Copies of the report will be sent to territorial authorities, the National Institute of Water and Atmosphere (NIWA), and Victoria University.

### 5. **RPS Implementation**

The monitoring to which this Report refers also helps implement the Regional Policy Statement. It provides the information basis for a range of freshwater quantity and freshwater efficiency and conservation implementation methods (section 5.5), contributes to the Regional Monitoring Strategy described in section 15.7, and helps assess the extent to which the anticipated environmental results set out in the Policy Statement are being achieved.

**6. Recommendation**

*That this report be accepted by the Committee.*

Report prepared by:

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