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Report to Environment Committee
from Andrew Jones, Groundwater Scientist

Annual Groundwater Report

1. Purpose

To inform the Committee of the completion of the 1999 Annual Groundwater Report and its key findings.

2. Background

A review of the Council's state of environment reporting in 1998/99 recommended the production of annual reports that describe the water resources of the entire Region rather than the individual Wellington and Wairarapa reports that have been produced for groundwater in the past. This joint groundwater report is the first of its kind prepared.

The annual report summarises the results of groundwater quantity and quality monitoring activities undertaken throughout the Region during 1999. The report supplements the hydrological database and technical reports that contain more extensive data and analysis.

3. Key Findings

Groundwater in the Wellington Region can generally be described as being in a healthy condition with levels and quality data within expected natural ranges. Notable results include:

- Rainfall across the Region in 1999 was generally at or slightly below long-term averages, particularly during the winter recharge months. This pattern is reflected in most of the aquifers recharged by rainfall where levels were at or below average levels during 1999.
- The water levels in some aquifers under the Wairarapa Valley were still recovering from the drought experienced during the summer of 1997/1998.

- Flow in most of the Region's rivers was 60-90% below average. This pattern has resulted in water levels in river-recharged aquifers being at, or slightly below average. An exception to this pattern was the Waiwhetu Artesian Aquifer where water levels were above average for most of the year despite slightly below average flow occurring in the Hutt River.
- Elevated nitrate nitrogen levels continued to be detected under the Hautere Plain on the Kapiti Coast. Additional monitoring sites are being considered to better define the lateral extent of the contamination.
- Chemical analyses from other groundwater zones in the Western Wellington Region were consistent with past results. In particular, analyses from the Waiwhetu Artesian Aquifer continued to show no evidence of seawater intrusion.

4. Groundwater Monitoring During 2000

This year we will continue to operate the baseline quality and quantity network. The network was formally reviewed in March this year and a number of recommendations were made to improve its coverage. These recommendations will be implemented during the remainder of the year.

5. Communications

Copies of the report are available to councillors on request.

The report will be sent to major groundwater users including the Kapiti Coast District Council and the Utility Services Division of the WRC.

Information from the report will be used in the Annual Environment Report, which is widely distributed.

6. Regional Policy Statement Implementation

The monitoring to which this report refers assists the implementation of the Regional Policy Statement. It provides the information basis for a range of groundwater quantity, quality 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.

7. Recommendation

That the report be received and the information noted.

Report prepared by:

Approved for submission:

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