



18 March 2005

Water Programme of Action
Ministry for the Environment
PO Box 10-362
WELLINGTON

SUBMISSION ON THE PUBLIC DISCUSSION PAPER ON THE MANAGEMENT OF NEW ZEALAND'S FRESHWATER RESOURCES

The New Zealand Climate Committee welcomes this discussion paper prepared for the Ministry for the Environment by the Water Plan of Action inter-departmental working group.

Many of the issues identified in the paper relate to the demand for water driven by various human activities (including agriculture), and the effects on water quality of the discharges of contaminants from some of these activities. We recognise the significance of these issues and the need to address them. However, we also feel that an important issue, which relates mainly to the supply of water, has been largely overlooked. This issue is the year-to-year and decade-to-decade variability of water supply resulting from both natural variations and human-induced trends in climate. .

In this submission we suggest an extra issue statement and an extra action statement to address this climate-driven variability. , We then provide specific responses to some of the questions raised in the “submission guide” on page 5 of the discussion paper.

Issue 9: Climate change and variability will change water availability

Increasing global greenhouse gas emissions over the coming century will lead to climate change in New Zealand. Most scenarios suggest that rainfall patterns across the nation will alter, with higher rainfall in the west, and less rain together with more drought in the east. The frequency of very heavy rainfall and of resulting floods is also very likely to increase. Such changes would affect the availability of, demand for, and reliability of supplies of fresh water in some parts of the country. They would increase the tensions due to the other issues identified in the discussion document.

Also, even in the absence of human-induced climate change, natural long period shifts once every few decades have been identified in broad west-to-east patterns of rainfall across the country and in resulting flows in some rivers. Such variability should also be taken into account in management and allocation of water, and (for example) in design of irrigation schemes.

The enclosed paper from the Society's Conference on Water Issues held in Auckland in 2003, which was written by the Chair of the RSNZ New Zealand Climate Committee, discusses some of these issues regarding the long-term variability of rainfall patterns and river flows in New Zealand.

Action 14: Research and monitor the effect of climate change and natural climate variability on freshwater supply and demand

Resolving the previous issues will be helped if policymakers and users have access to relevant, timely and high-quality scientific information about the inevitable changes in geographic and time distribution of precipitation, meltwater supply, evaporation and use.

Central government should address the requirements for this research, consulting with local government users and with researchers to determine the knowledge and data gaps that should be addressed to guide sustainable management of variable freshwater resources. This could include examining whether any extra observations of climate, soil moisture, riverflows, snow, groundwater or water quality are desirable.

Issues addressed:

All of them. This action affects what we know of the distribution and amount of water supply and demand, and can inform all the other management issues.

Responses to specific questions and points

Action 1 – Develop national policy statements:

Climate variability and change (both natural and human-induced) will be a national and long-term issue. National policies for freshwater should include consideration of the variability of freshwater, to limit our exposure to droughts, floods and precipitation changes.

Central government should specify that regional councils should incorporate planning for variability in water supply and demand.

There may also be a role for central government mediating between regions where water is lost and regions where water is gained.

Action 4 – Increase central government participation in regional planning:

Central government informs regional planning by carrying out relevant scientific research. However, there is a clear but poorly-addressed requirement for central government to play a role in ensuring that relevant research results are disseminated to local governments and other potential users of that research. This provides central government with a clear opportunity to raise the standard of debate around these issues, as well as maximising the use of research that has already been purchased. The need for this was recognised a recent evaluation of environmental research carried out by the Ministry for Research, Science and Technology: (<http://www.morst.govt.nz/?CHANNEL=ENVIRONMENTAL+EVALUATION&PAGE=Environmental+evaluation>)

Action 5 – Increase central government's support for local government:

An important role for central government is ensuring the research and monitoring needs to inform and guide local planning are identified, and the resulting work is funded.

Action 9 – Set requirements for regional freshwater plans to address key issues and challenges:

A key issue will be the changes in freshwater supply and demand due to climate variability and change (both natural and human-induced). Central government should require regional councils to consider these medium- and long-term issues when developing their regional plans. As advocated in the document "Preparing for climate change – A guide for local government in New Zealand", which was recently published by the Ministry for the Environment, it makes

very good sense to deal with climate variability and change as part of existing council planning and operational processes.

Action 10 – Enhance Māori participation

A potential issue may occur here as responses to climate change clash with concerns over the separate mauri of individual catchments. There may be increasing pressure to move water across catchment boundaries to deal with reduced flows and increased demand in some catchments.

We hope you will find this submission from our committee helpful. If you would like to discuss any points within it you are welcome to contact me.

Yours sincerely

A handwritten signature in black ink that reads "David Wratt". The signature is written in a cursive, slightly slanted style.

David Wratt
(Chair, New Zealand Climate Committee).