



Commission for the Environment

Water and Christian Ethics

Our capacity to manage water use wisely is, arguably, for our time a measure of our ecological and ethical maturity. Commissioner Bill Leane challenges us to address the issue.

Engineering skills have been deployed since the 1930s to provide abundant water (usually stored in large dams) for our use.

The resulting false sense of security lasted until the end of the 20th century when the folly of our belief in the perpetual abundance of good quality water became manifest as water scarcity, declining water quality, degraded soils and depleted aquifers became evident to all.

The promises made by promoters of big dams made us forget some simple truths that were evident to earlier societies: that water was a precious resource, water was limited in amount and not evenly or equably distributed in either time or space, and that a society that practiced poor stewardship of its water resources was in peril of social, economic and environmental catastrophe. In the 21st century, we now have to relearn these lessons and it is our values and beliefs that must provide the context for change.

As stewards of Christ's earthly creation, what are our responsibilities in management of water?

I believe that these fall into three categories.

Riparian stewardship. The riparian zone is the corridor of river banks and the vegetation on either side of rivers, creeks and gullies that provide the critical link in preventing sediments, pollutants and nutrients entering our waterways. To take up our role in riparian stewardship is to become aware, interested, and then knowledgeable about the important relationships that shape the landscape. This 'landscape literacy' is a knowledge that is vital for the survival of any society, but especially to one that wields technical muscle on a scale ours does. Revisiting and relearning this lesson is necessary if our society is to understand the problems that we face and to give context to necessary remedial action.

How many of us can name one local native plant flowering on the banks of our rivers, much less any of the myriad of insects, fungi and microorganisms found there. How many of us can say what role they fulfil or how they live? What do we understand of the services they contribute to our well being, and what are the consequences and options when species are removed by loss of habitat, pollution or climate change?

Our first step then is to be aware of our environment and more literate as to what it is and



FALSE SECURITY: Bill Leane argues that large dams such as the Hume create a false sense of security about water.

what it contributes to our well-being.

Resource stewardship. Every ancient society allocated its water in relation to the relative security of supply from available sources, and the relative importance of demands for the different grades of water. Most precious (secure) were local sources of water from reliable springs and wells that were available for drinking.

Next was previously used water: households used rinse and washing water for gardens etc; farms used irrigation water multiple times via terraced fields and simple collection and return structures.

Third, insecure supplies from occasional rains were harvested and stored for later use. Such insecure storages were emptied as soon as convenient to vacate space for the next downpour.

Communal long term secure storages were reserved for common use and were usually in aquifers, and natural or excavated underground chambers for long term reserve storage. These were used sparingly in good times and reserved for use in bad times.

The principles employed by the ancients are as relevant in the 21st century as they were then, except that we have the advantage of technology to transform water sources from insecure to secure, and from lower to higher quality. However, we have developed policies and structures that depend almost exclusively on long-term reserve storages, and have lost sight of the importance of local secure and opportunistic source availability.

We need to preserve the reticulated mains supply for potable needs so that it is used only after other available sources (from grey-water and rainwater) have been used for 'fit for purpose' uses. Modern technology provides devices (logic control units) that can treat grey-water to safe standards and cheaply select the source to match the quality of water demanded for a given use. No behavioural change is necessary on

the part of the user to result in a very environmentally friendly outcome, often at lower long-term cost.

It is too easy to simply turn on the tap for town water. We need to take more responsibility for choosing the right water for the right task and let our political masters know that this is the preferred direction of change in policy. We are then in a position to have technology make water available, rather than drawing yet more from the natural environment

Equity & Justice. The water sharing systems of many ancient societies had equity as central in the allocation decision. These societies recognised that the basis of most conflict and dispute was over sharing arrangements and developed elaborate systems to ensure that essential needs were met with a fair basis for water sharing.

The question of equity has only just surfaced as a social issue in the Australian water debate. In the current drought we are now seeing many households installing systems for rainwater collection and recycling, often without utility approval because of the rigid application of potable water policy and public health guidelines.

Appropriate policy, standards and delivery mechanisms are central to issues of equity and justice. The use of drinking-quality water for most in-house and external uses exacerbates artificial water shortages in times of drought. That is, water of drinking quality is restricted for all uses, whereas many uses could be met by grades of water other than of drinking water standard.

We need to establish a 'fit for purpose' portfolio of supply sources to meet appropriate of various qualities, and to engage technology so as to optimise our use of these.

This article started off by making reference to societies that managed water well some thousands of years ago. These systems have since become dysfunctional or have fallen from use. In most cases it was because of climate change.