

# EXECUTIVE SUMMARY, FINDINGS AND RECOMMENDATIONS

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## EXECUTIVE SUMMARY

- 1.1 The Standing Committee on Public Administration does not support the use of public drinking water source areas for both recreation and drinking water supply. Two previous parliamentary inquiries have endorsed the need for a preventive approach to source protection in Western Australia and this Report builds on that work. Source protection is the paramount consideration in water planning and overrides any recreational consideration. Western Australia's century old preventive approach to source protection has strong foundations in significant public health events, prescriptive legislation, globally best practice Australian Drinking Water Guidelines and the Department of Water's Statewide Policy 13.
- 1.2 Two community surveys as well as 193 submissions the Committee received for this Inquiry overwhelmingly reveal that the general public have a fundamental concern for the primacy of drinking water and its source protection.
- 1.3 Relevant considerations in the Committee's conclusion that dual use of public drinking water source areas is untenable, included:
- diminishing surface yields in the catchments as a result of a drying climate;
  - the need to protect expensively produced surplus desalinated water stored in various catchment reservoirs;
  - that human pathogens remain the most significant threat to water quality;
  - that human presence in the catchments has cumulative, adverse ecological impacts potentially affecting water quality; and
  - that the recreational benefits of activities in natural environments can be achieved in locations other than public drinking water source areas.
- 1.4 From Mundaring in the Perth hills to Boyup Brook in the south-west, the Committee identified 29 catchment areas and water reserves that can supply drinking water noting that only 18 are currently being used. The Department of Water and the Water Corporation are now reviewing Bancell Brook Catchment Area; Bickley Brook Catchment Area; Boddington Dam Catchment Area; Brunswick Dam Catchment Area; Dirk Brook Water Reserve; Gooralong Brook Water Reserve; Harvey Dam Catchment Area; Mullalyup Water Reserve; Murray River Water Reserve; and

Wellington Dam Catchment Area for de-proclamation as public drinking water source areas. The vast majority of these catchment areas and water reserves already allow many forms of recreation in the outer catchment and at a minimum, walk trails. If de-proclamation were to occur, additional recreational opportunity would become available. However, the remaining eight catchment areas and water reserves would require an even more stringent application of government policy and enforcement of legislation to protect raw water quality. 12 irrigation or recreation lakes and dams are not public drinking water source areas and are currently available for recreational activities.

- 1.5 Recreational activity has positive social and health benefits for individuals as well as economic value to local governments but it is the very presence of humans in an ecosystem that poses the most risk to water quality and therefore risk to ‘whole of community’, human health. Source protection remains a first line defence given the very clear evidence that microbial pathogens persist for long periods in soil and water; and cause human illness via drinking water.
- 1.6 The Committee witnessed the worst effects of human behaviour in the catchments from photographs of pig entrails next to the water’s edge of a reservoir to visual inspection of gouged shoreline from trail bike tracks at Mundaring reservoir. The Committee learned that a dead kangaroo in a water body or catchment is less likely to carry infective organisms than a person swimming illegally in a dam; that chemical contaminants do not replicate themselves in the same way that organisms will; and that the role of disinfection by-products from fully treated water has been the subject of extensive but inconclusive epidemiological and toxicological research, necessitating a precautionary approach.
- 1.7 The Committee deferred to Water Services Association of Australia’s literature review of the *Effects of recreational activities on source water protection areas*, to understand the impacts of human presence on flora and fauna, biodiversity, water quality and soil. The Committee was particularly concerned at the immediate and long term impact of wildfires caused by human presence in forests, especially in circumstances of a subsequent weather event with sudden, accelerated high run-off on pathogen behaviour. This was described by one witness as an ‘aquatic freeway’ straight into the water body.
- 1.8 Cumulative recreational activity has ecological impacts in catchments which pose an unacceptable risk to raw water quality. Given that there is a degree of uncertainty with respect to some of these impacts, the Committee found that a precautionary approach within a risk management framework is preferred for the recreational activity that is currently allowed in catchments.

- 1.9 The Committee discovered that the penalties for breaching the By-laws protecting our public drinking water source areas encourage potential offenders. Substantial increases of up to \$5,000 have been recommended through amendments to the principal legislation as well as an infringement notice system with modified and daily offence penalty provisions to deter access.
- 1.10 Contrary to opinion expressed in the majority of submissions, Statewide Policy 13 does not lock people out of public drinking water source areas, rather it restricts incompatible activities and provides for passive, land-based recreation as well as a small number of events subject to rigorous assessment and conditional approval. Previous application of Statewide Policy 13 has raised an expectation that approvals based on past custom and practice will be granted. In order to protect public drinking water source areas, any future conditional approval applications should be limited.
- 1.11 Allowing any further relaxation of Statewide Policy 13 in the outer catchments will create health risks for water providers to manage on behalf of future generations of Western Australians. The current system of conditional approvals has unfortunately created a culture of ‘rights’ to access public drinking water source areas for certain group events. It is then difficult to restrict the access those groups have had in a particular location.
- 1.12 Comparing interstate and overseas jurisdictions revealed a diversity of drinking water source protection practices which can be explained by historical, multiple land use and significant public health events.
- 1.13 The recreational fishing community pleaded for access to catchments’ water storages, arguing that with modern technology, these should be opened and the water fully treated before entering the reticulated system. However, the Committee found the cost of alternative water quality treatment to be prohibitive. For example, if hypothetically, Harding dam in the Pilbara was converted to dual use, the estimated cost would be \$49.75 million for additional processes, \$333 million for an environmental storage barrier and \$3 million in additional annual operating costs. The cost of water treatment so as to enable recreation in the catchments is contrary to the Australian Drinking Water Guidelines. These guidelines include a multiple barrier approach to protecting drinking water sources, which is more cost effective and efficient than full treatment. There are far higher priority calls on the public purse.
- 1.14 The Committee noted many alternative sites available for recreational use and that if some public drinking water source areas are de-proclaimed, they would provide further opportunity.

**FINDINGS AND RECOMMENDATIONS**

1 Findings and Recommendations are grouped as they appear in the text at the page number indicated:

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**Finding 1: The Committee finds that an ever increasing proportion of Western Australia's potable water is produced by desalination and groundwater recovery, which entails significant capital and operational cost. In addition to the public health imperative, this cost furthers the importance of protecting existing surface water dams and their catchments.**

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**Finding 2: The Committee finds that the recreational community places a high social value on recreation in natural bush settings, rivers, water bodies and catchments.**

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**Finding 3: The Committee finds that recreational activity provides economic benefit to the State and particularly to local government districts.**

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**Finding 4: The Committee finds that the objectives of providing safe water and achieving the health and social benefits of interaction with natural environments are not compatible in the same geographical area. Public drinking water source areas are best committed to the single purpose of providing safe water.**

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**Finding 5: The Committee finds that recreation in natural environments provides an important benefit and addresses many modern day health problems. However, protection of drinking water sources remains the paramount consideration.**

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**Finding 6: The Committee finds that that humans recreating in source areas pose an unacceptable risk to drinking water quality.**

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**Recommendation 1: The Committee recommends no increase in the amount of current recreational activity in the outer catchments of public drinking water source areas.**

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**Recommendation 2:** The Committee recommends that the public drinking water source areas identified by the interagency collaborative partnership described in paragraph 4.37 as appropriate for de-proclamation as public drinking water source areas, be used for irrigation and recreation.

The Committee further recommends that recreational activity be managed by a working group for each such area comprising representatives as appropriate from the Department of Water, Department of Environment and Conservation, Department of Sport and Recreation, Department of Health, the Water Corporation, Tourism WA and the relevant local government authority.

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**Recommendation 3:** The Committee recommends the continuation of the collaborative approach between the Department of Water, Department of Environment and Conservation, Department of Sport and Recreation, Department of Health and the Water Corporation towards identifying appropriate dams and their catchments compatible for irrigation and recreational purposes. The Committee anticipates that this would increase recreational opportunities for the people of Western Australia.

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**Finding 7:** The Committee finds that limiting recreational access in public drinking water source areas to their current level is appropriate risk management.

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**Finding 8:** The Committee finds that the penalties for breaching the Metropolitan Water Supply, Sewerage and Drainage By-laws 1981 are not an effective deterrent and fail to adequately protect public drinking water source areas.

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**Finding 9:** The Committee finds that the absence of an infringement notice system in the *Metropolitan Water Supply, Sewerage, and Drainage Act 1909* is an impediment to effective enforcement of the Metropolitan Water Supply, Sewerage and Drainage By-laws 1981.

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**Recommendation 4:** The Committee recommends that the penalties in by-law 31.4 of the Metropolitan Water Supply, Sewerage and Drainage By-laws 1981 be increased to a level comparable to the \$5,000 penalty found in the *Local Government Act 1995*. This recommendation reflects the seriousness of the offences contained in by-law 31.4.

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**Recommendation 5:** The Committee recommends an amendment to the *Metropolitan Water Supply, Sewerage, and Drainage Act 1909* to provide for an infringement notice system and modified penalties of \$500 to apply to the Metropolitan Water Supply, Sewerage and Drainage By-laws 1981.

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**Finding 10:** The Committee finds that the penalties in the Country Areas Water Supply By-laws 1957 are not an effective deterrent and fail to adequately protect public drinking water source areas.

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**Finding 11:** The Committee finds that the absence of an infringement notice system in the *Country Areas Water Supply Act 1947* is an impediment to effective enforcement of the Country Areas Water Supply By-laws 1957.

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**Recommendation 6:** The Committee recommends that the penalties in the Country Areas Water Supply By-laws 1957 be increased to a level comparable to the \$5,000 penalty found in the *Local Government Act 1995*. This recommendation reflects the seriousness of the offences contained in the By-laws.

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**Recommendation 7:** The Committee recommends an amendment to the *Country Areas Water Supply Act 1947* to provide for an infringement notice system and modified penalties of \$500 to apply to the Country Areas Water Supply By-laws 1957.

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**Recommendation 8:** The Committee recommends that the 1994 Agreement between the Federation of Western Australian Bushwalkers Inc and the Water Corporation as described in paragraph 5.55 be cancelled.

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**Recommendation 9:** The Committee recommends that all future reviews of Statewide Policy 13 should be based on the imperative of source protection and guided by the precautionary principle.

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**Finding 12:** The Committee finds that a comparative analysis of recreational access in other Australian and overseas drinking water sources is unhelpful in determining an appropriate level of access for Western Australia. Diverse drinking water source protection practices are explained by historical multiple land use and significant public health events.

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**Finding 13:** The Committee finds that it is possible to treat public drinking water to reduce potential health risks arising from access to the source areas to that water for recreational use. The Committee further finds that such treatments entail significant cost and cannot guarantee a safe drinking water supply.

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**Finding 14:** The Committee finds an absence of a lead agency that should be responsible for decision making in the Priority 1 area of the Kununurra Water Reserve.

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**Recommendation 10:** The Committee recommends that a lead agency be nominated to be responsible for decision making in the Priority 1 area of the Kununurra Water Reserve.

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**Recommendation 11:** The Committee recommends that the Government give consideration to relocating the Kununurra bore field to another site to enable the development of the existing Priority 1 area of the Kununurra Water Reserve as a tourist precinct.