

Federation of Western Australian Bushwalkers Inc.

Draft POSITION PAPER

**ACCESS TO WATER CATCHMENT AREAS
FOR TRADITIONAL BUSHWALKING ACTIVITIES**

— Draft as at 11 May 2007 —

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1. The Federation's Interest

The Federation of Western Australian Bushwalkers Inc. is the peak body representing the nine incorporated bushwalking clubs in W.A. and their 900 members. The Federation is also a part of Bushwalking Australia Inc. representing Australia's 20,000 organised bushwalkers.

The Federation is well known to the DoW as a result of our past discussions and presentations in relation to specific catchment management and walking access issues. Most recently (2006) this has included two meetings with DoW, written correspondence, and our attendance at an open day at Logue Brook Dam.

The Federation's overriding purpose is to facilitate for its members the healthy recreational pursuit of bushwalking. Traditional bushwalking areas close to Perth are of particular importance to our members. The Federation and its membership have an obvious interest in protecting the recreational and environmental (including water quality) values of most of the forested areas of the Darling Plateau, including those that will be affected by the current draft Drinking Water Source Protection Plans.

The Bibbulmun Track is the only walking track of significant distance across the northern catchment areas covering around 4500 sq km. The Federation applauds the success of the Bibbulmun Track in encouraging bushwalking and attracting tourism revenue, and would not wish to detract in any way from the excellent continuing work by all those associated with the Track. However, there is a growing community need for additional bushwalking opportunities close to Perth, for both single day and longer walks with overnight stays, and for the many walkers who most enjoy walking 'off-track' in the more remote forested areas.

For many bushwalkers, the most satisfying walking involves backpacking over a number of days and overnight stays, to become immersed in the 'wilderness' experience. However, overnight stays are currently banned within most of the forested walk areas within the Perth region. Many walk areas lie within the extensive water catchment areas of the Darling Plateau where overnight stays for walkers are restricted to 15 designated campsites along the Bibbulmun Track between the Kalamunda Terminus and Dwellingup townsite. Within a larger part of these forest areas totalling around 4500 sq km, non-Bibbulmun Track bushwalkers are therefore currently limited to day walks only. Unfortunately that will be the case for as long as current W.A. State regulations and policies remain unchanged and/or authorities refuse to exercise their existing discretionary powers to give bushwalker groups authority via "*specific permission in writing*" for overnight stays in catchments.

The Federation recognizes that the forested lands that include the drinking water catchments are a community asset and face multiple pressures from multiple users. The Federation accepts that not all existing uses will be compatible with the community's future needs and other priority uses of the asset without investment in additional treatment facilities. However, we submit that the nature of our members' traditional bushwalking activities is such that they are not incompatible with other uses of the catchments, particularly as drinking water source areas.

Factors that make the catchment areas (and the RPZs) a valuable and unique amenity for the Perth bushwalking community include:

- i) The **best** bushwalking areas near Perth
 - large, near-wilderness, scenic and nature qualities;
- ii) **Proximity** to Perth;
- iii) **Accessibility** via good roads.

The Federation therefore can be considered to be a **key community stakeholder** in catchment management issues affecting access to areas covered by the current draft Drinking Water Source Protection Plans.

2. Bushwalking's role in the health of the community

The Federation's members walk for recreation, for relaxation and leisure, for a stimulating challenge, and while doing so keep fit and healthy and socially connected.

The State Government's **Walking Strategy for Western Australia for 2007-2020** (**“Walk WA”**) is intended to encourage all Western Australians to walk more and to develop environments in which the decision to walk is easier. Yet regulation in W.A. appears currently focused on decreasing rather than increasing access to bushwalking opportunities across large areas of our Darling Plateau water catchments.

Certainly the value to the community of such access must be assessed, objectively and transparently and weighed against the potential costs to the community of any perceived risks such as to biosecurity and water quality. However, we live in an age when the community also needs and deserves every reasonable encouragement and opportunity to pursue active, healthy, and stimulating lifestyles rather than being placed in ‘mothballs’ to avoid perceived ‘risks’ however small and manageable. In Western Australia this need is recognised in part by the existence of the **Premier's Physical Activity Taskforce** to address the declining level of physical activity.

From a bushwalker's point of view the absence of DEC and Department of Water senior representation on the current Premier's Physical Activity Taskforce is surely an oversight. Those two bodies are the most relevant regulatory bodies to the issues of access to bushwalking areas in the Perth region. Such representation, alongside the existing representation from DSR, DPI, etc, and broader community representation, would seem one of the keys to ensuring dialogue and cooperation between the relevant Government departments and with the community on removal or suitable adjustment of any unnecessary regulatory barriers to bushwalking activities. Such barriers are inconsistent with the Government and community's aim of increasing the amount of walking in W.A.

3. Bushwalking as a perceived risk to water quality

It is clear that Perth's drinking water supplies must be appropriately protected. However, sweeping restrictions on access, whilst seemingly the simplest management option, ignore the very low risk nature of certain healthy activities, particularly bushwalking.

Minimal impact - Bushwalking, whether on-track or off-track, is widely recognized as a very low impact and environmentally friendly activity. Bushwalkers do not spend much time in any given area as they are passing through, or ‘on the move’.

Much of current public awareness of bushwalking is through the existence of publicised trails such as the Bibbulmun Track. This latter Track has been good for bushwalking and good for the community as it has encouraged many in the community to discover the delights of bushwalking. However, many bushwalkers most enjoy off-track walking in the more remote areas lacking existing paths or trails. They gain all of the benefits of bushwalking, but their off-track walking

also adds a special sense of freedom, of exploration and adventure, and a heightened appreciation and valuation of wilderness. Often they are seeking greater solitude, away from popular existing trails.

Off-track walking in the Perth region's jarrah forests and wandoo woodlands does not create worn 'tracks' or 'trails' - the walkers are in very small numbers (especially in comparison to kangaroos, emus, feral pigs and illegal trail-bike riders) and rarely follow precisely the same route on different occasions, which in any event is very difficult to do, even with GPS and/or compass as navigational aids. Popular off-track walking areas such as the Christmas Tree Well area near Brookton Highway have attracted walkers for many years, particularly following the publication of "Forests on Foot" (Meney & Brown, 1985) which included a description of a walk in that area. Even today there are no signs of worn trails in that, or other popular off-track walking areas despite the many visits by keen bushwalkers.

Ironically the very absence of formed 'trails' and lack of evidence of any other human visitation in many popular bushwalking areas, and also the lack of published 'route' maps for most areas, can be mistakenly taken to suggest that those areas are seldom visited and have no special recreational amenity value to the community. As a result land managers could possibly inadvertently exclude walkers from using these areas, by closing secure parking areas and access roads for example. Bushwalkers, as do urban walkers, require safe discrete parking facilities for cars at access points to walking areas and tracks. Unfortunately the Department of Environment and Conservation has in recent years quietly closed a number of the off-highway roads and picnic areas that previously provided safe and discrete parking.

Bushwalkers come from all walks of life but invariably they share one key attribute: They all care deeply about, and know how to care for, the natural environment. Despite the long history of bushwalking within the water catchments in W.A. there have been no cases where actual or potential pollution of public drinking water has been attributed to bushwalkers, and to the best of the Federation's knowledge there have been no such cases attributed to hikers anywhere in the world. Objectively, the risk of bushwalkers contaminating drinking water sources and adding significantly to the costs of maintaining water quality is negligible, especially compared for example to the obvious potential for contamination frequently seen at public picnic areas and adjacent to public parking areas along the major highways that traverse the catchments. That fact seems to be partly acknowledged from the Water Corporation's 1997 review of recreational activities (summarized in Policy 13, Section 3.1.2), which recognized that bushwalking has "*relatively low potential*" to "*impact on the catchment environment and water quality*".

In N.S.W., the authorities controlling the Warragamba Dam catchment (Sydney water supply) allow overnight stays by bushwalkers within most of the catchment outside of the 'Schedule 1' Inner Catchment area (the equivalent of RPZs; see Sydney Water Catchment Management Regulation 2000 under Sydney Water Catchment Management Plan Act 1998; Clause 21). They recognize that bushwalkers' overnight stays do not pose a significant risk to water quality and that most of the catchment provides a valuable recreational opportunity in those circumstances. It is unclear why the authorities in Perth, with its much lower population and correspondingly much lower recreational pressures on the catchments, take a very different view and prohibit bushwalker overnight stays in the catchments. As summarised below (Section 4.6), the Federation and its members have had reasonable access to the catchments as prime areas for bushwalking for many years, including under formal and informal agreements for a period of 60 years. The activity of bushwalking (both on-track and off-track and including overnight stays) appears to have been rightly recognized by the regulators not to have been incompatible with the protection of drinking water quality.

4. Impact of W.A. regulations and policies on bushwalking access to water catchments

4.1 Water Catchments, Reservoir Protection Zones & Risk

Waters and Rivers Commission Statewide Policy No. 13 (Policy and Guidelines for Recreation within Public Drinking Water sources Areas on Crown Land), 2003, prohibits all “unauthorized” bushwalking within 2 km of the top water level of a drinking water storage area (DWSA), and bushwalking with overnight stays (unless with “*specific permission in writing*”) within metropolitan water catchment areas.

The 2 km wide exclusion zone around the reservoirs appears to have been based on an initial arbitrary distance introduced to W.A. legislation in the *Metropolitan Water Supply, Sewerage and Drainage By-laws 1981*. The 2 km width has evidently been subsequently accepted and defended as a Reservoir Protection Zone (RPZ) by regulatory bodies, including DoW and Department of Health (DoH), despite no evidence of serious scientific review of its validity over a period for more than 25 years. Ironically that lack of review inevitably assists the regulators to perpetuate the application of the ‘precautionary principle’ referred to in Policy 13 (see Section 3.2.1, second dot point) and elsewhere that “*lack of full scientific certainty*” is “*not a reason for postponing measures*” under a water quality management strategy (see also Section 4.1 below).

The DoH has been quoted by DoW as having the view that “*the current system of protected catchments has been successful in protecting public health*” and it “*supports the 2 km RPZ exclusion zone*”. In fact that same “*successful*” system had also allowed the Federation’s bushwalking members access to the RPZs for a period of 18 years after the introduction of the 1981 by-laws (see below), and for many years before their introduction. Bushwalking activities within the catchments over that very long period did not give rise to any adverse incidents nor to any concerns regarding any perceived risk to water quality and public health.

DoW has separately advised that the exclusions from RPZs have been based on “*the occurrence of incidents worldwide and the implementation of evolving best management practices*”.

Worldwide incidents cited by DoW include:

- i) **Walkerton incident, Ontario, Canada, 2000** - This is an often cited example of contamination of drinking water supplies (in ADWG, pp. 3-14; also WQPN36, pp. 6-7; and Hrudely & Hrudely reference below). The incident was an outbreak of waterborne disease which resulted in 7 deaths and more than 2300 illnesses. It was the result of extreme incompetence: During heavy rain, cattle manure on a farm washed a very short distance into a shallow drinking water supply well; The susceptibility of the well to such contamination had been identified more than 20 years before the incident and directives were in place for near-continuous water quality testing; Those directives had been largely ignored and log entries and reports were falsified; The contamination in 2000 was therefore not identified in time to prevent the incident. The Walkerton case highlighted the seemingly obvious (but evidently ignored) need for diligent water management by the authorities at all stages from primary source to consumer. It was an extreme and unusual case which has no practical relevance to bushwalking or overnight stays within catchment areas.
- ii) **Sydney treated water scare: ‘Boil water notices’ issued to Sydney residents in 1998** - Similar to the Walkerton case, the Sydney scare highlights the need for vigilance at all levels by water management authorities. It was an extreme case of water management

incompetence, involving 1) very poor quality control in water monitoring and methodology; 2) overloaded sewage treatment plants within the catchment; 3) processed sewage (probably containing the hardy cryptosporidium parasite) used as fertilizer on farms in the Warragamba catchment; 3) unsewered villages within the catchment; 4) feral pigs, cattle grazing, and other animals not controlled within the 'specially protected' inner catchment.

Incidentally in the outer catchment areas of Warragamba dam there are the following towns/cities- Goulburn, Bundanoon, Moss Vale, Berrima, Bowral, Mittagong, Lithgow and Mt. Victoria. All of the above towns/cities today still discharge their stormwater and sewerage into the catchment. Katoomba and Leura have been connected in recent years to Sewerage Treatment Plants (STP's) that discharge into the Nepean River instead of Warragamba Dam. Farming, usually grazing is extensive in the outer catchment areas.

- iii) **Hrudey, S.E. and Hrudey, E.J., "Safe Drinking Water – Lessons from Outbreaks in Affluent Nations", 2004, IWA Publishing.** - This often-cited reference includes detailed descriptions of 73 waterborne outbreaks occurring since 1974 in 14 developed nations. It also includes accounts of the above Walkerton, 2000 and Sydney, 1998 water quality incidents. In at least 26 of the 73 outbreaks some victims required hospitalisation, and eight outbreaks involved fatalities.

Not surprisingly there were no cases in which walking or overnight stay activities were identified as direct causes or contributors to the outbreaks summarized in Hrudey & Hrudey. Identified key causes variously included: inadequate (or no) water treatment; sewage leak or discharge; animal fecal contamination; poor hydraulic engineering; unusual rainfall/runoff pattern; excess turbidity. i.e. None of these appear to have been due to subtle risks or events and would have been identified and mitigated prior to the outbreaks if effective water management had been in place.

Other references occasionally cited include:

- **Cilimburg, A., et al, "Wildland Recreation and Human Waste", (in Environmental Management, 2000, Vol. 25, pp. 587-598).** – This paper has on occasion been incorrectly cited to suggest that improper disposal of human waste by bushwalkers presents an insurmountable risk to water quality. The paper in fact says "...there is little evidence to suggest that the health hazard to humans is great enough to impose further regulation in areas currently using catholes." All WA bushwalking clubs impose catholes (i.e. the digging of a small hole to bury human waste) as a recognised means of safe human waste disposal in areas remote from water sources and public facilities.
- **Cole, D.N. and Spildie, D.R., "Hiker, Horse and Llama trampling effects on native vegetation in Montana USA", (in Journal of Environmental Management, 1998, Vol. 53, pp 61-71).** - This has also been taken out of context to suggest that bushwalkers in W.A. pose a major risk of damaging vegetation through trampling and this can adversely affect water quality. Yet in the paper's concluding paragraph there is the appropriate caution that "*The experimental data...can only be applied to the vegetation types and trampling intensities included in the experiment.*" Those more familiar with traditional bushwalking areas in W.A. water catchments know the impact of off-track walkers on vegetation in the catchments is negligible (see also under 'Minimal Impact' above). Finding any evidence that walkers have even recently visited an area would generally be impossible. In any event any possible trampling effect from traditional bushwalking in Perth's catchments would be infinitely less than the impact of bulldozers used on occasions by the catchment managers to thin vegetation to increase runoff into the reservoirs, and also less than the impact of bauxite mining and forestry operations.

4.2 Risk avoidance

As a relatively recent and sensational case, the Walkerton outbreak is most often now used to highlight the obvious need for vigilance at all levels ('multiple protection barriers') within drinking water source areas. Unfortunately as a response to the call for heightened vigilance, 'risk avoidance' becomes a simple and most appealing option for water managers, purportedly justified as a 'precautionary approach' (see also Section 4.4 below).

Risk avoidance is not necessarily conducive to diligent, accountable water management. Risk avoidance favours management complacency (e.g. "let's draw a line on the map and nothing will happen inside that line") and potentially a 'head-in-the-sand' attitude to risk management. It may create an illusion that all key risks are under control and that less management budget, resources and vigilance are therefore required. Risk avoidance in the RPZs and 'Priority 1' zones can too easily become a water management tool of convenience, reducing the risk of accountability of managers themselves rather than addressing any real risk of adverse effects on water quality. Risk avoidance is no substitute for proper hazard identification and objective assessment and mitigation of the key risks of drinking water source contamination. It is leading to unnecessary prohibition of patently minimal risk activities and the resulting loss of valued amenities such as bushwalking areas, at a social cost to the community.

4.3 Risk minimization and risk management

Risk minimization and risk management on the other hand, require that water managers remain fully accountable to ensure that hazards are properly identified, and key risks are assessed, monitored, and managed. Risk management encourages management diligence and learning. Risk is acknowledged, assessed and controlled appropriately for the level of risk and consequence. For example, there is little reasonable doubt from the worldwide empirical evidence that hiking (or bushwalking) and overnight stays are minimal risk-low consequence activities with regard to drinking water quality issues and should therefore be 'conditional' activities with sensible controls proportional to the risk. The Federation's members have historically been consistently responsible and aware of water quality protection issues, including sanitation and hygiene. Bushwalking does not involve contact with the water body and walkers are educated to stay out of, and away from, water courses. The activities of the Federation's members are low intensity and low impact, involving small and well-organized groups.

Dr. Richard Helmer, while overseeing the development of international water health and safety guidelines for the World Health Organisation, has remarked (on ABC Radio National, 22 Nov. 1998) in referring to the Sydney 'boil water' scare: "...one has to tell people that there is a certain probabilistic risk and this we cannot avoid. So there is no life without risk, and people in their own home life, they understand that: driving a car is risky, smoking a cigarette is risky, air pollution in the city is risky. So water is not completely risk free."

The incidents cited by DoW have negligible relevance to the actual risks that might be attributed specifically to traditional bushwalking activities in catchment areas and RPZs in W.A. Local conditions and circumstances also need to be considered. The low density, low impact activity of bushwalking with occasional overnight stays could not be described as a significant risk in W.A.'s water catchments.

Furthermore, our members could make their own contribution to minimizing risk within the catchments: Their 'eyes and ears' could provide an overlooked service to the community. Due

to their presence within remote parts of the catchment areas bushwalkers are more likely to see or hear activities or events that could pose a threat to water quality (e.g. hazardous conduct such as poor bush hygiene, illegal off-road vehicle use, etc) that would otherwise go unnoticed in areas beyond the monitoring capability of the DoW. As responsible and caring members of the community the Federation's members would notify the respective land managers and therefore contribute to risk mitigation. Our members themselves strictly adhere to the Federation's high and responsible standards of bush hygiene, including leaving no traces, carrying out all litter and burying human waste.

Any perceived small risk of added costs of water treatment also needs to be weighed against the health cost to the community of inadvertently encouraging the sedentary lifestyle as one social consequence of further decreasing opportunities for bushwalking as an attractive recreational activity. Ironically, the four planned measures of the "success" of Policy 13 (see Section 4.3) do not consider this cost to the community of loss of public amenity.

As in the Walkerton case, the failings of water management at multiple levels within Sydney's Warragamba catchment in 1998 is not an argument for 'risk avoidance' at any level but points to the need for key hazards to be identified, and risks at every 'barrier' to be assessed, monitored, and properly managed in a process of 'risk minimisation'.

The public should never be encouraged to believe that a policy of 'risk avoidance' is an effective or necessary panacea for dramatic failings in effective management such as in the Walkerton outbreak and Sydney scare. When managements in any area are derelict in their duties, no policies or controls of any kind will "avoid" risks and the adverse consequences of risk events. Protection against failures in water management cannot be achieved through 'risk avoidance' within the drinking water system that is being managed, but must be through the introduction of regular, comprehensive, independent audits of the management system itself. It is probably relevant that the ADWG makes no reference to 'risk avoidance' but does address the need for audits, including of the management system.

4.4 The status of hazard identification and risk assessment in our catchments

The 2004 ADWG (National Water Quality Management Strategy, Australian Government; Appendix A, p. A-12) state that "*The identification, evaluation and planning of preventive measures should always be based on system-specific hazard identification and risk assessment. The level of protection used to control a hazard should be proportional to the associated risk.*"

Although Policy 13 of 2003 (Section 5.5) recognized that the "*policy on recreation is a "risk-based approach"*", it also cautioned that "*potential risks associated with recreational activities have not yet been quantified*". The DoW has (by letter of 12 April 2006) quoted the CRC for Water Quality and Treatment (2005, unpublished draft) as also stating "*...one area of almost universal common ground is that a **precautionary approach** is warranted with current levels of access not being increased until further analysis indicates that such changes will not have an adverse impact on water quality.*" One of the six guiding principles of the ADWG also notes that the "*balancing process [of risk management] must be tipped in favour of taking a **precautionary approach***" (though it should also be noted that the ADWG nowhere refers to a principle of 'risk avoidance', but emphasizes hazard identification and risk assessment).

The Federation recognizes the widespread international acceptance of "**precaution**" as a guiding

principle of regulatory policy-making (especially in environmental and health protection) by many national governments and supra-national entities such as the U.N. and European Union, and other bureaucracies. However, application of the “*Precautionary Principle*” (as espoused in the Rio Declaration, 1992 version, or in one of the many other formulations, and within Australian Government) in many cases remains undeniably controversial, partly because of intrinsic vagaries and extreme variability in interpretation.

The European Commission in its application guidelines for the Principle includes “*Proportionality*” i.e. *Measures ... must not be disproportionate to the desired level of protection and must not aim at zero risk.*” However, ‘strong’ applications of the Principle most often require **minimal** threshold of scientific plausibility of a possible risk to justify stringent regulatory controls, even if the supporting evidence of the risk is speculative. The European Commission (EC Commentary, 2 Feb. 2000) commented that “*clear guidelines are still lacking for the weight of evidence needed to trigger the principle, and for deciding which of the large range of precautionary measures should be applied in given circumstances.*” Discretionary judgment therefore is allowed to play a key role, and decisions can become political rather than objective and rational. Sunstein (in “The Paralyzing Principle”, in ‘Regulation’, Winter 2002-2003, pp.32-37) concluded that “*a rational system of risk regulation certainly takes precautions. But it does not adopt the Precautionary Principle*”.

An ongoing policy of ‘**risk avoidance**’, rather than being a transitional, precautionary step pending completion of detailed identification of hazards and objective assessment of risks, has potential to simply defer the risk management objective. The Federation is aware that risk avoidance, or “prudent avoidance” as per the principle proposed by Granger Morgan, 1989, is a precautionary principle that advocates (in one version) that “*reasonable efforts to minimise potential risks should be taken [even] when the actual magnitude of the risks is unknown*”. However, there appears to be little relevance of taking that principle from its typical area of application (e.g. electromagnetic radiation safety; particularly involving fields produced by power lines; Sahl & Dolan, 1996) where a ‘hazard’ may or may not even exist, to apply to the management of water catchments where hazards can certainly be identified and risks assessed, albeit with some uncertainty.

Policy No. 13 indicated a need for “*further study and investigation*” on the impacts of recreational activities. Commentary and work by the authorities on the impacts of recreational activities and other perceived risks however appears to have subsequently remained at best anecdotal. Risk assessments as presented in draft Water Source Protection Plans use the ADWG risk analysis matrix (as per WQPN#77) but comprise no more than a highly qualitative listing of “*Potential water quality risks*”.

DoW advised in 2006 that the complexity of understanding the quantitative extent to which any particular type or level of activity will result in water quality impacts “*should not be underestimated and is many years away.*” The ADWG (Section 3.2.3) implicitly acknowledges the complexity and also the uncertainty associated with hazard identification and risk assessment. As above, the ADWG alludes to a “***precautionary approach***” in its guiding principles, but nowhere does it suggest any justification for not progressing hazard identification and risk assessment beyond a purely anecdotal level.

The ***precautionary principle*** is also captured in Policy 13 (see Section 3.2.1, second dot point) as: “*lack of full scientific certainty*” is “*not a reason for postponing measures*” [under a water quality management strategy]. However, a **zero risk** objective is also unsustainable and

unacceptable as recognised in the European Commission guidelines. “*Full scientific certainty*” on the impacts of particular types or levels of activity on water quality may for many (or most) cases never be achievable, yet for many of those same cases ‘**reasonable and sufficient certainty**’ should be easily achievable.

From the above, in the public interest there is a clear and urgent need and obligation on the authorities to progress beyond subjective characterization of potential (including perceived) water quality risks and to gather relevant data to objectively identify the hazards, analyse the perceived risks, the risk levels (probabilities) and potential consequences of risk ‘events’, and to then assess and publicly present the risk management options for the water catchments under their custodianship. If quantitative risk information is required for the authorities to move beyond a policy of ‘risk avoidance’ then that work should be commenced as a priority. A specific plan and timetable for objective risk assessment should be prepared and made publicly available.

4.5 RPZ buffer widths

Until the necessary quantitative risk assessment work has been undertaken as above to establish appropriate levels of protection, the Federation accepts that it is prudent and consistent with “*best practice*” to maintain a safety buffer around drinking water sources. However, the basis and need for a prohibited zone as wide as 2 km as first prescribed over 25 years ago, and the nature of the restrictions and/or exclusions applying to that zone, needs urgent review.

DoW has previously stated that there are many areas both within and external to drinking water catchment areas that are outside the RPZ and can be legally accessed, and that RPZs comprise a small relative percentage of the total area within each catchment. Unfortunately that ignores the fact that many of the best traditional bushwalking areas are within 2 km of water source areas. The zones up to 2 km wide around relatively small reservoirs ‘lock away’ disproportionately large total surrounding land areas. Due to the nature of the mainly gentle Darling Plateau terrain, there are fewer options for alternative attractive bushwalking areas away from the RPZs than are available in other States. Consequently, restrictions on bushwalking that might seem acceptable to the community in other States, are not appropriate for the Perth region.

There appears to be no scientific or other evidence to suggest that a narrower buffer width of say 200m as an exclusion zone around reservoir shorelines would result in any lesser practical protection of public health than the seemingly arbitrary 2 km zone now generally being imposed around reservoirs. In fact, in their discussion of the safe disposal of human waste, **Cilimburg et al, 2000** (see ref. under 4.1 above) have pointed out that “*Many land management agencies...recommend depositing wastes in cat holes 30-60m from lakes and streams...there is no compelling evidence to alter such recommendations, except to standardise the distance to 60m.*” In the more than 25 years ago since the legislation was enacted there has been no evidence of any focused work by the authorities to understand or quantify the perceived risks, and justify the 2 km ‘buffer’ for all activities. As noted above (Section 3), despite the long history of bushwalking within the water catchments in W.A. there have been no cases where actual or potential pollution of public drinking water has been attributed to bushwalkers, and to the best of the Federation’s knowledge there have been so such cases attributed to hikers anywhere in the world.

It was some encouragement that the DoW advised in writing as recently as February 2006 that it

is “considering buffer areas of less than 2 km” though “any future changes will need to pass through legislation.”

Furthermore, in Water Quality Protection Note, WQPN6 of February 2006 (“Vegetation buffers to sensitive water resources”), which DoW claimed represented its “**current views**” and “**guidance**” it appears to be implicitly acknowledged that a ‘Prohibited Zone’ across the entire 2 km RPZ width is unnecessary. It is also encouraging that the DoW when defining default buffer dimensions that are “*considered most suited to the south-west of WA*”, indicates in the Note that a minimum appropriate vegetation buffer width within RPZs is 100-200m. Furthermore, “*recommended buffer widths may reduce according to risk level....*”. Item 19 in the paper deals with RPZs and specifically refers to Table 1 and the largest buffers. The Note recommends a **minimum 200m sub-zone within the RPZ** itself as a total activity-exclusion buffer zone. The paper is focused on vegetation rather than access as such, but clearly links the 100-200m minimum buffer as also being the ‘no public access zone’. The explanatory notes on Table 1 of the Note also indicate the buffer is the primary barrier to protect the water body from harm...including to provide “*risk minimization of water contamination..*” There is no suggestion in the Note that public access should be prohibited across the entire 2 km width of an RPZ.

DoW’s own publications and statements therefore show an awareness that a 2km exclusion zone is not universally warranted for protection of reservoirs.

There is clearly a case for a change to the MWSSD by-laws of 1981 to allow for substantial reduction of the prescribed 2 km ‘prohibited zone’ to a more realistic distance such as 200m. DoW’s WQPN36 of April 2006 (“Protecting Public Drinking Water Source Areas”) states that “By-law changes are currently being consulted to allow the “*two kilometre*” *limit to be defined in DWSPPs “up to two kilometres*”. However there is no indication in recent draft DWSPPs that the authorities are proactively moving toward the required legislative change that would allow them the scope to reduce exclusion zones. Policy 13 is however intended to be reviewed in **July 2008** (i.e. 5 years after publication, as per Section 4.3 of the Policy). That would be an additional opportunity for the authorities to introduce more flexibility into the policies and guidelines affecting access.

4.6 Historical access

The Federation, its forerunners and their members have used lands currently controlled by the DoW/Water Corporation as prime areas for recreational bushwalking since 1937. For many years before and subsequent to the introduction of the MWSSD by-laws more than 25 years ago (1981), the activity of bushwalking (both on-track and off-track) appears to have been rightly recognized by the regulators not to have been incompatible with the protection of drinking water quality. Bushwalking clubs were allowed reasonable access to the water catchments, including areas now captured within RPZs.

In fact the bushwalking community in Western Australia had an agreement with the Water Corporation and its predecessor, Water Authority of W.A., for more than 60 years. That agreement allowed them access to the catchments for bushwalking (both on-track and off-track) including for overnight stays outside of the 2 km ‘prohibited zone’. From 1993 the agreement was in writing, but it expired at the end of 1999. The Water Corporation refused to renew it on the basis of protecting the quality of drinking water. All subsequent efforts by the Federation to

renew the agreement have also been rejected.

In defense of its current position the DoW have cited the Walkerton incident and other outbreak cases or scares (see above) in which water quality has been compromised. Those cases have involved instances of extreme incompetence in water management and in the management of key risks (i.e. those with significant potential risk 'event' consequences) that should have been easily identified and/or monitored and managed. The cited cases have no practical relevance to bushwalking other than indirectly, by confirming that bushwalking activities have nothing in common with key risks involved in any of the incidents.

Policy 13 (2003) appears not to have recognised the historical significance to the community of bushwalking within 2 km of the water storage areas. It is a great loss to the community that many of the traditional bushwalking areas within the catchments are now being 'locked away' in 2 km wide RPZs with seemingly no new science, evidence, or argument to justify that action other than a "lack of full scientific certainty" (as referred to under 4.1 above) and the policy of 'risk avoidance'. Similarly the opportunity for traditional extended walks with overnight stays within the catchments is being removed.

4.7 Future access

The Federation acknowledges that DoW was not the author of the 1985 by-laws, nor of Policy 13 (2003), but through its ongoing dialogue with the authorities, including DoW, the Federation has been seeking to maintain (with conditions) reasonable access for bushwalkers to RPZs and to overnight stays within the catchments.

Despite the 2 km exclusion zone, the 1981 MWSSD by-laws do not prevent the authorities using their discretion to authorise access to catchments via "*specific permission in writing*". Furthermore, Policy 13 (Section 2.6 and Section 5.1) indicates that: "*In special instances, where the activity has been approved historically, activities may be undertaken in accordance with a permit or prior written approval. This includes recognition of recreational activities and facilities that have been established prior to the development of this policy under agreement with preceding State agencies or Governments.*" - As a long-established and accepted activity, having clearly negligible risk to water quality, bushwalking clearly comes under that conditional umbrella. Given its long history in most of these areas, bushwalking would reasonably be considered to be an historically significant activity.

Policy 13 provides three potential mechanisms for bushwalkers to seek to maintain legitimate access to RPZs (outside of practical buffer zones) and for overnight stays within the catchments i.e. :

- i) **Environmental Management Plan** ('EMP'; as per Policy 13, Sections 2.4 & 5.4.1). DoW has previously advised that EMPs may be used provided that the proposed activities are "*conditionally*" acceptable in PDWSAs. Under that advice, it would appear that EMPs are not an available mechanism for seeking to maintain access as i) Bushwalking within RPZs and Bushwalking/backpacking with overnight stays are considered in Policy 13 to be "*Incompatible*" activities.
- ii) **Drinking Water Source Protection Plan** ('DWSPP') (as per Policy 13, Sections 4.1 & 4.2). This appears to be a potentially suitable mechanism for the Federation to seek to maintain access to its traditional walking areas. The Federation understands that the full

consultation process is intended to include the DWSP Assessment document as an information and discussion tool to be made available to key stakeholders (which include the Federation) in advance of a Draft DWSP being released for a six week public consultation period.

- iii) **Negotiations to engage in approved recreation activities** (as per Policy 13, Section 5.4.3): Section 5.4.3 indicates the possibility for clubs to negotiate for their members to “*engage in approved recreation activities*”. Following discussions through 2002-2003 with Water Corporation and subsequently with DoW, the Federation in February 2006 presented to the DoW a draft agreement for consideration. This was intended as a basis for negotiations toward a new agreement that would maintain access to traditional bushwalking areas within the catchments. The DoW responded by letter on 12 April 2006 reiterating that there would be no relaxation of existing policy in Priority 1 areas of Drinking Water Catchments and in RPZs. i.e. Overnight stays in “*non-designated campsites*” in Priority 1 areas would not be permitted, nor would bushwalking access to RPZs.

The Federation proposes that future access for traditional organized bushwalking activities be according to the following key principles:

1. Advance notice of an intended walk (with walk route map, location of planned overnight stay/s, walk leader’s name and contact details) will be forwarded to a nominated Water Corporation [or DoW] representative no less than seven (7) days prior to commencement of a walk.
2. Overnight stays will be in ‘**temporary designated camping sites**’.
3. Campsite conditions will be as follows:
 - i) No more than 10 walkers per group per walk event;
 - ii) At least 500 m away from any publicly accessible vehicle track and out of visual sight of any publicly accessible areas;
 - iii) No closer than 200 m to any feeder stream courses to drinking water supply;
 - iv) Human wastes will be buried at least 250 mm deep.
 - v) Minimum impact, no trace.
4. Water Corporation [or DoW] may require a route or temporary designated campsite location to be modified prior to commencement of a walk.
5. The walk leader will carry a copy of walk notice and personal identification to be available for inspection upon request by any Water Corporation [or DoW] representative.
6. Walkers will not enter the Reservoir Protection Zone (RPZ).

DoW has previously indicated concern that any concessions for one recreation group with regard to a particular activity (such as overnight stays for walkers within catchment areas) could bring additional pressure on DoW to make similar concessions for other groups. The Federation’s above proposal should alleviate that concern: The above proposed conditions relevant to organized bushwalking/backpacking activities are closely defined and very specific. Furthermore, bushwalking activities are very unobtrusive, low intensity and low profile; bushwalkers do not attract attention in the forest. The concessions to be sought are therefore highly unlikely to attract pressures from others. The walkers’ activities would also be open to very close control and scrutiny by DoW through the proposed advance notice and permit, which would also be a strong deterrent to potential ‘illegal’ activities by others.

Such conditions and controls would ensure the same “*minimal*” level of risk which DoW already attributes to **Research Project activities** in the catchments (e.g. refer Draft Canning River

Catchment DWSPP; Table 1, page 30). Research projects and bushwalking activities would similarly involve “*low numbers of people*”, “*management controls*”, and “*ease of education prior to the activity*”. i.e. the same considerations for management which made research projects an “*acceptable activity with Best Management Practices*”.

The Federation trusts that appropriate access for traditional bushwalking activities and for responsible overnight stays within the catchments will be maintained and/or restored through further consultation and agreement on a proposal such as the above, or a workable alternative. The Federation also trusts that the DoW will further favourably consider what reduced safe buffer width is actually necessary around the shorelines of drinking water reservoirs and will encourage and cooperate in enabling changes in legislation to provide for a ‘prohibited zone’ or RPZ width of less than 2 km (or alternatively a reduced bushwalking exclusion zone of less than 2 km within the RPZs; as discussed under 4.5 above).
