

break o'day catchment risk group

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Submission: Review of the State Policy on Water Quality Management (1997)

Water has become a much scarcer commodity since the State Policy on Water Quality Management (SPWQM) was written in 1997. Water quantity has declined substantially in Tasmania's eastern rivers and parts of the Midlands and eastern Tasmania have already received drought relief from the Commonwealth Government.

This has major implications for Tasmania's social and economic development.

Given these facts, water quality is of the utmost importance. It is extremely expensive to transform polluted raw water into a quality acceptable for domestic water use. The many drinking water recycling disputes that have occurred on the mainland are testimony to this. Agreement between all stakeholders on allowed levels of antibiotics, pharmaceutical products and hormonally active products is difficult to achieve.¹ Polluted raw water used for irrigation may also impact on crop quality as well as impact on ecosystem health within the catchment.

General comments on the discussion paper

A consultation process of five weeks public comment time just prior to the busy holiday festive season does not give enough time for such a far-reaching important review especially when development recommendations and preferred options are being considered.

¹ www.ehpc.gov.au/ehpc/water_recycling.html

Tasmania has taken a whole-of-government approach for water management (under the Department of Premier and Cabinet) and responsibility for water. SPWQM has clearly stated objectives designed to produce 'best outcome' water quality in Tasmanian waters. If these have not been achieved in the past 11 years, then the reasons for this failure as well as the review of State objectives for water quality need to be addressed. Policing and enforcement policies need to be specifically reviewed and upgraded. Catchments providing domestic and agricultural water are not protected from other human activities which may and do impact on them. For example, DPIW's own 'Pesticide Monitoring in Water Catchments' data² shows an increasing number of pesticides detected in an increasing number of major waterways over the last 3 years since its inception. It needs to be understood that this is a limited programme for only some rivers with no data for sediments, groundwater, or related estuaries. 'State of the River Reports' are limited in the information they provide about the actual raw water quality.

Downgrading objectives because of inadequate implementation policies not undertaken in a timely fashion will not produce good outcomes for water quality as many degraded rivers and polluted groundwater sources demonstrate.

The water and sewerage reform will also need to comply with the NWQMMS.

That the Tasmanian Slipways and Management Framework Project (2002/2003/2008) which have not been finalised and implemented for point sources of pollution regarding water quality, is a glaring omission from this discussion paper. It is difficult to understand the reasons why current State pollution laws are not policed and enforced to prevent controlled waste from slipways discharging into waterways.³ The relaxed attitude on the part of authorities to the enforcement of these laws is well known and deters adoption of best practice management policies.

The policies for the discharge of sewage and other wastes from boats need to be unambiguous and clearly defined, implemented and enforced.

Though the regulation and oversight of many level 1 activities which impact on water quality falls to local governments, it is critical to provide a consistent state-wide framework. It is important for the State Policy to provide clear guidance on water management issues.

There are a number of significant issues which need to be addressed as part of a statewide approach to improving water quality management. These include:

² <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/CART-69STWK?open>

³ Aquatic Science, 2007, 'Review of Sediment Sampling Program: Tasmanian Boat Maintenance and Repair Facilities', Prepared for Environmental Policy, Environment Division, DTAE.

- lack of knowledge / data regarding the extent of groundwater pollution ;
- poor implementation of current landfill guidelines;
- failure to prepare emergency management plans integrating Local and State government responses. The delay in preparing such plans is reprehensible especially given the past occurrence and future potential for aircraft crashes carrying chemicals in water catchments. A community audit was submitted to the Department in 2007 on this issue.⁴

Section 3

It is vital that the following national guidelines are adopted in full by the Tasmanian Government:

- National Water Quality Management Strategy (NWQMS) standards;
- Australian and New Zealand (ANZ) for Fresh and Marine Water Quality Guidelines (2000);
- Australian Drinking Water Guidelines (ADWQ) (2004)

The implementation of these guidelines also needs to be kept current with national revisions. Notes below detail the current thinking on water monitoring for biological toxicity from contaminants.

In August 2008, the Ultimo Declaration on Revising the current Australian and New Zealand Water Quality Guidelines (WQGs) was released. It recommended a number of actions essential for implementation within the next three years. Importantly, these actions include:

- determining trigger values for chemicals not included in the current WQGs such as endocrine disrupting chemicals and new pesticides;
- reviewing and updating the types of toxicity data that are deemed appropriate for deriving WQGs. The Review recommended using (a) hypothesis based toxicity data, no observed effect concentration (NOEC), (b) sub-cellular endpoints (c)

⁴ Bleaney, A. 2007, 'Risk Awareness and Incident Response Capability in Water Catchments in NE Tasmania, Australia-A Community Based Audit'. *Upper Catchments Issues Tasmania*, Vol 3 No 3. ISSN 1444-9560

<http://www.resource-publications.com.au/tos/data/uppercachment/upper-catchment-17.html>

incorporation of greater than and less than toxicity data (d) pulsed exposure toxicity data (e) rapid toxicity test data.

- examining whether WQGs could be derived for mixtures of chemicals with the same mechanism of action (e.g. PAHs, dioxins, PCBs, pesticides, endocrine disruptors). (pers. comm. – SETAC conference Aug, 2008)

The SPWQM is the Tasmanian version of the NWQMS, which includes the ADWG. The SPWQM therefore needs to comply fully with the current ADWG. Tasmania has its own Guidelines (Tasmanian Drinking Water Quality Guidelines, 2005) which mandates for bacterial compliance. However, the Tasmanian Guidelines do not mandate for the regulation of pesticides or biological toxins as specified in the ADWG. This is further reason for the urgent formulation of integrated water catchment management plans to allow the collection of raw drinking water from protected water catchments as detailed in the ADWG.

The ANZ Fresh and Marine Water Quality Guidelines support the mechanisms for obtaining and determine the quality of water in waterways that will provide drinking water. The national guidelines (NWQMS) should be used in full by the department which has regulatory control for water.

SPWQM and the *Water Management Act 1999* (WMA) can provide for integrated catchment management, given the whole-of-government approach to water by the Tasmanian Government. However, the effective implementation and enforcement of water quality management continues to be compromised by the fact that the Department responsible for water (DPIW) is also responsible for pesticides and agriculture. The Minister for Water is also the Minister for Pesticides, Agriculture, Forestry and Resources. The inherent conflicts in these roles will continue to hamper effective implementation of integrated catchment management in Tasmania.

Section 4

The current legislative framework affords little protection against pollution of waterways through pesticide application in catchments.⁵ In particular, there is little recourse in the frequent situation where it is not possible to identify a culpable polluter from the many point sources and diffuse source polluters within the catchment. As a result, it is currently difficult to prevent contamination events from occurring. The *Agricultural and Veterinary Chemical (Control of Use) Act 1995* and the ongoing (from 2005) review of the regulatory control of aerial and ground spraying of pesticides, need to ensure

⁵ <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/CART-69STWK?open#MonitoringResults>

policies are adopted that prevent diffuse and point source contamination of waterways. Sufficient departmental resourcing and political will are also necessary to ensure that adopted policies are implemented and enforced.

It is essential that a mandatory statutory framework exists for water quality, utilizing water catchment management plans to allow appropriate planning. This should incorporate the development of Tasmanian Water Quality Guidelines and Water Quality Objectives.

At present, forestry operations are not directly regulated under the *Environmental Management and Pollution Control Act* (EMPCA). Agricultural and forestry application of pesticides need to be dealt with as a single issue, under the same legislation and regulatory control, as they may both produce waterway pollution. The current regulatory controls need to be implemented and enforced to provide the intended outcome, i.e. water quality objectives are to be met and enhanced.

Water quality issues need to be dealt with uniformly, so every type of use or development with the potential to cause water pollution is subject to the same regulatory framework.

The Environment Protection Agency should police and enforce these and the current regulations.

Until these issues are resolved it is imperative that water quality is regulated by DPAC under a unifying mandatory statutory framework.

As demonstrated by the recent incident at Roseberry, the impact on water quality by the drainage of acid soils from mine sites containing sulfide minerals (presently 681) is a cause of concern. Acid sulfate soils in the north Tasmanian coastline and inland areas have already been identified but no further investigations into their management or indeed identification of the priority impact areas have been implemented. In view of the plans to create intensive dairy farming in the northeast of Tasmania, this work needs to be addressed urgently. Data on remedial action taken on historic mine workings and implementation of water management plans is essential to ensuring ongoing water quality.

Section 5

SPWQM should apply to all waters including surface, coastal and groundwater. Under the current climatic conditions (including projected climate change effects), sudden large dumps of rainfall may mean that any surface waters including privately owned waters will flow into public waters including raw drinking water sources. Private dams,

artificial water bodies, and naturally occurring water bodies on private property may well have linkages to groundwater sources. Therefore, as all water in Tasmania may be interconnected, it should be treated under the same regulatory framework.

The SPWQM cl.6 objectives are still appropriate and relevant to contemporary Tasmania. The NWQMS is the national guideline and this Policy has evolved from it.

It is a cause for concern that Tasmanian water quality guidelines and objectives (fresh, coastal and groundwater) have not yet been developed. There should be more detailed and clear explanations of the basic concepts of Protected Environmental Values (PEVs), Water Quality Guidelines (WQGs) and Water Quality Objectives (WQOs) in the Policy itself. PEVs description and definition require clarification within the redraft of the Policy and inclusion within the Policy. The ANZ for Fresh and Marine Water Quality Guidelines, 2000, should be incorporated into the policy see 5.5.2.6; these will allow the development of WQGs. To use insufficient data to produce these (including not using current ANZ for Fresh and Marine Water Quality Guidelines and ADWG) would be nonsensical in the light of current international research on water quality issues especially if these are to be regarded as the Policy's "showpiece".

All designated marine farm zones and coastal Marine Waters should be assigned a default primary industry PEV.

Cultural values as per the ANZ Fresh and Marine Water Quality Guidelines, 2000 guidelines need to be adopted immediately.

Application of the ANZ Fresh and Marine Water Quality Guidelines allows for WQGs to be reviewed. These should be enforceable. Designation and amendment of PEVs and ADWG must be subject to full community consultation.

Management of diffuse sources of pollution have not been fully implemented in water catchments with the resulting adverse effects impacting Marine Farms. This is articulated in the discussion paper. The same is true for raw drinking water that is sourced from these waterways. These are ongoing and long standing problems.

Unless 42.2 of the current Policy is upheld, marine farms cannot rely on a source of water with a quality sufficient to sustain their industry. Any change to this legislation will have financial and developmental impacts.

Catchment management plans may well go a long way towards solving these problems. However there seems to be no will at Local or State Government levels to develop them.

Monitoring strategies for waterways will be dependent on many factors including the past and present human activities in the water catchment and the risks assigned to them that may impact on the ecosystem and water quality. Different strategies for monitoring water quality are well laid out in the currently used ANZ for Fresh and Marine Water Quality Guidelines, and the current revision.

Partnerships and agreements in Tasmania that do not adequately embrace all aspects of national guidelines will be deficient in providing 'best practice' water quality guidelines.

Any legislation regarding water quality needs to ensure the outcomes that are intended i.e. protection of water from pollution and enhancement of water quality, with the protection of human and environmental health coming before protecting business interests.

A handwritten signature in black ink that reads "Alison Bleaney". The signature is written in a cursive, flowing style.

Dr Alison Bleaney OBE

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Sec BODCRG – an organisation affiliated to the National Toxic Network