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The Hon Max Trenorden
 Chairman, Standing Committee on Public Administration
 Parliament House
 Perth Western Australia 6000

RE: INQUIRY INTO RECREATIONAL ACTIVITIES WITHIN PUBLIC DRINKING WATER SOURCE AREAS

We refer to the letter to Mr Kevin Young dated 17 November 2009 inviting submission to the Standing Committee on Public Administration. Hunter Water offers the following submission with regard to Term of Reference (2)¹.

1. SUMMARY

- Managing catchments and reservoirs to preserve raw water quality is an important component of safeguarding water quality delivered to Hunter Water's customers;
- The social benefits of public recreation on dams must be balanced against the risk to drinking water quality;
- Recreational opportunity in Hunter Water's drinking water catchments is varied depending on the nature of the catchment and the proximity to the storage;
- Hunter Water has included extensive access for recreation in plans for the proposed Tillegra Dam. Water quality risks associated with recreation here are substantially less than other storages due to the different method of operation;
- Increasing recreational access on storages will increase water quality risks. A recent revision of the Australian Drinking Water Guidelines suggests that a quantitative risk assessment may be necessary in future to properly balance level of drinking water treatment and public access to storages;
- Until such a time that the changes to the Australian Drinking Water Guidelines are agreed, Hunter Water will maintain status quo for recreational access to its public drinking water source areas.

2. CURRENT AND PROPOSED RECREATIONAL OPPORTUNITY WITHIN THE CATCHMENTS

Hunter Water has two current and one proposed surface water storage and two ground water storages:

Grahamstown Dam is an off-river storage dam. Approximately half of the water entering the dam is pumped from the Williams River and the balance comes from its own catchment. Land use in the catchments comprise of a mixture of unregulated extensive agricultural land and small urban centres. As a result recreational activities are not controlled. The dam itself has a limited level of

¹ Term of Reference (2): State, interstate and international legislation, policy and practice for recreation within public drinking water source areas including information relating to population health benefits and impacts.

recreation permissible, including sailing and fishing during daylight hours on a defined area of the dam.

Chichester Dam is an on-stream storage in a relatively pristine catchment. Access to the dam is currently limited to Hunter Water personnel. No recreational activity is permitted on the water or near the upstream shoreline of storage. Approximately 20% of the catchment is privately owned farmland and the remaining land is remote National Park with limited recreational access.

Tomago Sandbeds supply approximately 20% of the Hunter's drinking water through a network of bores that cover 110km². These are located almost exclusively in National Park that is closed to public access. The 'no public access' policy to the Tomago Sandbeds is maintained due to the risk to public safety and the risk to drinking water quality. There is therefore no recreational opportunity in this catchment.

Anna Bay Sandbeds provide approximately 40% of the water for 60 000 residents of the Tomaree Peninsula. This catchment was transferred to National Parks from Crown Water Reserve in 1984, which was deemed acceptable land use for catchments at the time. Normal National Parks access rules apply to this catchment (foot traffic only, no domestic pets).

Hunter Water has allowed the broadest range of recreation in the catchment and storage for the proposed 450 gigalitre **Tillegra Dam**. The current proposal allows walking, low impact camping, boating and swimming. The reason for this level of access is because, if approved, the dam will operate differently from many others. Water will be released into the Williams River, flow approximately 60 kilometres downstream to be selectively pumped into Grahamstown Dam. This allows more time between the water source and water treatment plant for attenuation of pollutants.

3. POPULATION HEALTH BENEFITS AND IMPACTS

3.1 Benefits

Many of Hunter Water's catchments are uncontrolled in terms of recreation and therefore provide significant amenity for the public. Access to water storages is more strictly controlled. As stated, Hunter Water maintains one closed surface storage and one closed sub-surface storage. Two storages are open to the public, and the following benefits are provided:

- Grahamstown Dam has a sailing club for disadvantaged and disabled youth. This facility allows sailing and canoeing, but no 'primary contact' activities such as swimming;
- Fishing is allowed in the sailing area of Grahamstown during the limited opening hours. Access to within 100m of the shore is prohibited except at the sailing club;
- Walking is allowed in the Anna Bay Sandbeds.

These benefits increase social amenity for recreators who wish to use these areas.

3.2 Impacts

3.2.1 Guidance from the Australian Drinking Water Guidelines

The Australian Drinking Water Guidelines (ADWG, 2004) are accepted as industry best practice for monitoring and management of drinking water catchments to distribution systems. Hunter Water's Operating Licence requires compliance with the Guidelines. The first of six guiding principles in this document illustrates the importance of understanding the risks that are inherent in source waters:

"The greatest risks to consumers of drinking water are pathogenic microorganisms. Protection of water sources and treatment are of paramount importance and must never be compromised."

The ADWG are under review. A draft paper indicates that a new (more rigorous) methodology may be employed to quantify the risk from activities in public drinking water source areas to drinking water quality. In future, this process may allow water authorities to weigh recreational access against health risks in a more rigorous fashion. Hunter Water expects that this process may better inform the debate regarding the acceptable balance of recreation in drinking water catchments and necessary capital expenditure on water treatment to address water quality risks

3.2.2 Guidance from NSW Department of Health

NSW Health guidelines recommend that extreme caution should be exercised where recreation in public drinking water source areas is allowed because of the possible increased turbidity, nutrient, chemical or pathogen load due to activity. It stresses that all treatment processes are fallible. Hunter Water therefore maintains an active interest in the management of all source water areas. In particular, close management of recreation (if permitted) in surface and ground water storages are of paramount importance.

3.2.3 Guidance from scientific literature

Some water supply reservoirs and catchments have previously been promoted as places that are conducive to public recreation, often because risks to public health were considered low. However, with an increased population in and around source water protection areas and improved research into the risks of public access to drinking water quality, a review of previously accepted management practices is required. Hunter Water maintains a watching brief on scientific research and uses it to inform decisions on the balance between public health risks against the desire for access to drinking water catchments and reservoirs.

4. CONCLUSION

- Public pressure for improved recreational access to drinking water storages is growing. In the Hunter, increasing population density has provided additional pressure to allow low levels of recreation in drinking water storages and catchments.
- The operational costs of opening a drinking water catchment to recreation are significant if the risks are to be appropriately managed. In addition, it is difficult to modify the access level if it were found unsuitable due to the cost of necessary infrastructure, services to manage recreation and public expectation.
- The water industry is moving toward a more rigorous process of risk assessment to balance public health against recreational access to drinking water source areas.
- Hunter Water has chosen to retain the status quo for public access to these areas until the guidance from the Australian Drinking Water Guidelines is collectively agreed.

Hunter Water looks forward to the outcome of the Standing Committee's inquiry and is interested in receiving a copy of the final report.

If you require any further information please contact Rhys Blackmore on (02) 4979 9891.

Yours sincerely



Kevin Young
Managing Director, Hunter Water Corporation