



Response to the
Environment, Communications, Information
Technology and the Arts
References Committee

Inquiry into the extent and economic impact of salinity

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Prepared by the
Western Sydney Regional Organisation of Councils
Ltd

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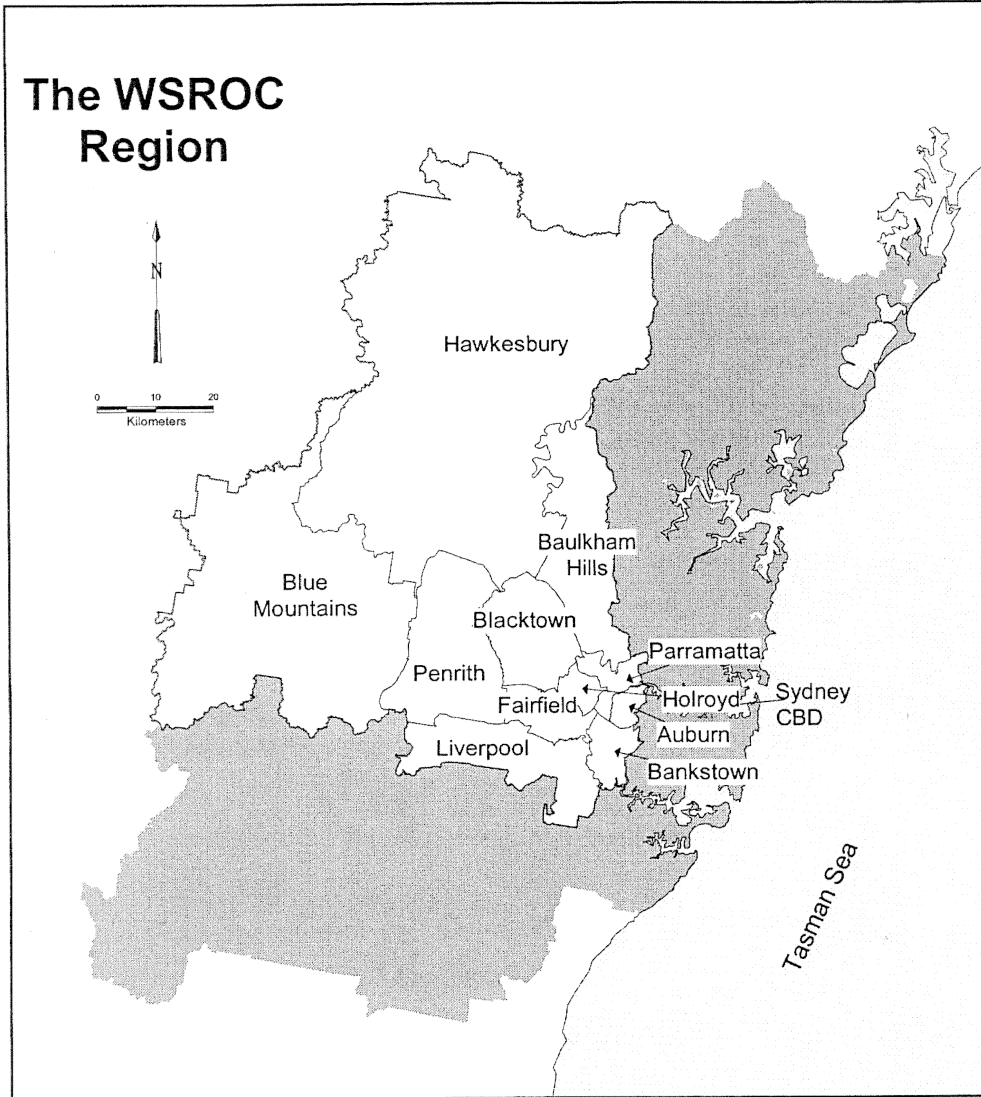
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Inquiry into the extent and economic impact of salinity

Background

With its research background, extensive advocacy experience and high credibility, WSROC has successfully lobbied for a more sustainable lifestyle for the residents of Western Sydney for over thirty years.

In recent years WSROC has managed a range of externally-funded projects in areas such as salinity and stormwater management. The organisation continually presents regional concerns to State and Federal Governments, including environment and education issues.

Greater Western Sydney (GWS) contains a diverse range of both the natural and the built environment with a major part of the region comprising parks, reserves or agricultural areas. The region is divided into three major water catchments – the Hawkesbury/Nepean River, Georges River and Sydney Harbour/Parramatta River. These waterways are coming under increasing pressure from the urban development associated with population growth. The region's biodiversity is also threatened from fragmentation and habitat degradation.

The impact of salinity on urban development in Western Sydney was first detailed in a report *Salinity in the South Creek Catchment* by the Department of Land and Water Conservation (DLWC) in August 1997.

A *Western Sydney Regional State of the Environment Report 2000* prepared by WSROC also highlighted potential salinity in the South Creek Catchment, stressing that it would have to be addressed through land management activities on a regional basis.

In December 2000 a *Draft Salinity Hazard Map for Western Sydney* was produced for part of the region at 1:100,000 scale. This map was subsequently reviewed and extended. The map depicted a localized salinity hazard for all the areas of Western Sydney with a Wianamatta shales geology and identified areas of more extensive salinity hazard where water naturally accumulates in the landscape e.g. riparian corridors.

Salinity Working Party

WSROC in partnership with DLWC in 1999 hosted a *Western Sydney Salinity Working Party* established through the WSROC Regional Environmental Management Committee for fourteen of the region's councils, relevant agencies and the development industry. This working party brought together the Hawkesbury/Nepean Catchment Management Trust (H/NCMT), the Upper Parramatta Catchment Trust, together with the WSROC Councils, plus Bankstown, Camden and Campbelltown Councils, the Housing Industry Association (HIA), the Department of Urban Affairs and Planning (DUAP), the Local Government and Shires Association (LGSA) and the Office of Western Sydney.

Since March 2000 this group was involved in the 'Western Sydney Salinity Management Project', which was funded by the Natural Heritage Trust.

Activities funded by the Natural Heritage Trust and overseen by the Western Sydney Salinity Group included:

- Employment of a Salinity Project Officer based at WSROC;
- Preparation and publication of a Western Sydney Salinity Code of Practice;
- Delivery of salinity training to councils in Western Sydney in conjunction with DIPNR; and
- Preparation of salinity resource material, including display posters, front-desk pamphlets, a "Good Housekeeping Guide" and a Resources Pack containing all these materials.

The role of the working party was to increase awareness of salinity problems and explore the management options available to councils, particularly when dealing with new development.

The WSROC Salinity Working Party in partnership with the DLWC was successful in obtaining grants funding from the Commonwealth's Natural Heritage Trust for employment of a Salinity Project Officer. This Officer, based at WSROC, developed a Code of Practice for the building industry for development in Western Sydney. The Code provided guidelines for councils' development decisions and planning outline assessment, management and building techniques to address and mitigate salinity, distribution of information on salinity problems and the provisions of solutions to local government, the industry and the wider community.

NSW Legislative Assembly Select Committee on Salinity

In March 2001 WSROC made a submission to the *NSW Legislative Assembly Select Committee on Salinity*. The submission highlighted the work that WSROC had undertaken to reflect the importance of the management of salinity in the region including:

- Recognition that salinity was a major environmental issue affecting a large area of Western Sydney (see NSW Salinity Strategy and State of the Environment Reporting in 2000); and
- Noting that the causes of salinity in the region differed from basic dryland and urban salinity models and required greater understanding.

Issues that were identified included:

- Liability, process and information dissemination;
- A lack of guidance to councils on how to alert residents of the problem and potential damages;
- A lack of information mapped at an appropriate scale;
- A lack of council resources to deal with the growing community concerns as residents became aware of the impacts of salinity problems;
- The need for clear and consistent council action based on clear guidelines. This highlighted:
 - The need for clear direction from government on the use of planning instruments to assess and manage salinity;
 - The need to include methods for building in a saline environment in the BCA;
 - The need for greater Federal Government leadership to co-ordinate actions across all levels of government; and
 - The need for stronger State Government commitment to addressing salinity concerns, particularly for large-scale land releases across Western Sydney;
- The need for further research with mapping at an appropriate scale and the development of new building materials and techniques;
- Ramification of actions taken:
 - Effects on land values;
 - Anger at lack of detailed information;
 - Further deterioration in surface water quality as subdivision proceeds and inappropriate water management techniques are used in new developments
- Western Sydney Issues

- Lack of acknowledgement at the Federal level of urban salinity issues for the region (no financial support);
- Lack of public awareness of the impact on residences and urban infrastructure; and
- Lack of financial support to repair damage to economically disadvantaged areas.

Salinity Training

Salinity training was developed by the WSROC Project Officer and DLWC and offered to Councils free of charge. The training was undertaken by 280 people from most of the councils in the region and covered a good cross section of staff from different disciplines. A second summary version of the training was held for those who were unable to attend the main training sessions.

The program included:

- An overview
- Salinity and planning
- Salinity assessment
- Salinity management
- Masterplanning
- Council practices

The Western Sydney Salinity project concluded on the 28th February 2003. The Code of Practice was endorsed by the WSROC Board on 20th February 2003.

A Salinity Resource Kit in electronic form was launched in Penrith on 12th March 2003 by the Minister for the Department of Land and Water Conservation.

As a result of this work, a number of Western Sydney Councils required investigative works to be carried out prior to development, particularly on larger sites. WSROC also argued the case for the development of a regional database to give a better understanding of the scale of the problem in the region.

House of Representatives Standing Committee on Science and Innovation (Inquiry into the Coordination of the Science to Combat the Nation's Salinity Problem)

In October 2003 WSROC's Senior Project Manager – Environment made a submission to the House of Representatives Standing Committee on Science and Innovation (Inquiry into the Coordination of the Science to Combat the Nation's Salinity Problem),

Issues raised:

- Salinity research into management options to address the need for:
 - timely translation of research into information, tools, applications and systems for effective land management;
 - appropriate and consistent measures of salinity;
 - a regional approach to the problem, ie a Western Sydney Salinity Code of Practice, in order to distill the information from the research into relevant formats for the end user.
- Continuation of the Salinity Working Party to link State Government technical and research programs, industry peak bodies and local government;

- Stressing the fact that science is problem-orientated and government is service orientated.
- Urban salinity to be considered with the broader context of integrated water management (eg how salinity affects stormwater management, WSUD and community behavioral norms)
- Impacts on agricultural lands at the peri-urban fringe – lands which provide a significant amount of fresh food to the Sydney market
- Salinity affects land use planning in urban areas and land use planning affects salinity processes in turn. It is an ongoing process that requires active, ongoing research and management – static or narrowly focused approaches will be ineffective.

Sustainable Cities 2025

- In November 2003 WSROC made a submission to the *House of Representatives Standing Committee on Environment and Heritage* highlighting salinity as an issue.
- The submission noted that salinity is an issue of prime national importance for Australia to address. Salinity is also an issue in urban areas such as Western Sydney. This has significant implications for asset management, risk, liability, and costs to the community.
- The effects of urban sprawl on urban salinity include:
 - the potential and actual degradation of natural and built assets and the costs , risk and liability implications for councils and private landholders;
 - contribution to urban salinity of current planning regimes, storm water management, householder behaviour and some water sensitive urban design practices;
 - the cost of salinity affected assets to private individuals in a region that contains large clusters of economically disadvantaged communities; and
 - a need for national coordination of salinity management efforts including the housing and development industry, especially in relation to the Building Code of Australia.

The Salinity Working Party continued to have a role as a regional forum for the discussion of salinity issues. The group supported the Hawkesbury-Nepean Catchment Management Authority's endeavour to establish the Hawkesbury-Nepean catchment as a National Action Plan region. This issue is unresolved and WSROC continues to urge that it should be re-considered as an acknowledgement that urban salinity is an urgent issue.

Gaps were also identified including training and awareness and salinity management. WSROC received funds from the NH-2 program to address the gap.

In January 2004 the Western Sydney Salinity Code of practice was revised. A Salinity Resources folder was prepared jointly with DIPNR, including the final version of the Code of Practice, copies of pamphlets prepared by DIPNR, the Salinity Potential Map (DIPNR) and salinity training courses provided by WSROC. There was also guidance provided on spotting salinity using indicator plants in Western Sydney.

WSROC's Strategic Plan 2004-2008

In October WSROC developed its four year strategic plan which has as one of its strategic goals: *Improved quality of the natural environment (air, water; biodiversity, land and waste management) across Western Sydney through the development of local and regional environmental initiatives.*

As a short term action (2004-2006) it proposed to continue to facilitate the Salinity Working Party; co-ordinate an Urban Salinity Conference; provide ongoing support of salinity management

initiatives and research in Western Sydney; data collection and collation and support for the Salinity Website.

It also sought to establish partnerships with the CMAs and the development of a WSROC Environmental Resources pack – combining a series of resources developed through WSROC-assisted projects including the Salinity Resource Pack for distribution to WSROC councils and to be provided on an enhanced WSROC/Environment webpage.

Urban Salinity Conference material

In November 2004 WSROC hosted a conference/workshop (funded by \$22,500 from the NHT) for consultants, the Housing Industry Association (HIA), the Storm water Industry Association, the Urban Development Industry of Australia (UDIA), Universities, local Councils and ROCS, DIPNR and DEC.

Most recent activities funded by Stage 3 of the Natural Heritage Trust included the co-ordination of an Urban Salinity Conference in February 2005 in Parramatta and the development of an urban salinity website linked to the WSROC website.

The final session of the Urban Salt 2005 conference encouraged delegates to think about how best to continue with the process of improving managing salinity issues in urban environments. It was also intended to provide a useful guide to the development of future education programs.

There were number of common themes in the responses as follows:

- a lack of general awareness about salinity and its impact (most regularly nominated);
- concern about the lack of understanding on the part of builders, developers, Council officers and senior State and federal bureaucrats on how to deal with salinity and the real cost of the problem.

Events such as the Urban Salt Conference and other educational activities were nominated as the most effective way of meeting these challenges.

Challenges identified were:

- a lack of easily accessible/accurate information;
- the need to work on prevention as well as cure;
- ensuring a better level of understanding by decision makers;
- active discouragement of development of a site-by-site response process;
- development of clear policy guidelines; and
- making salinity a real community issue.

Education processes need included:

- which agency should be responsible for undertaking the process; the need for WSROC, the Urban Salinity Committee and DIPNR to continue with their education programs; and
- the development of a website and a salinity discussion group.

Medium term success factors nominated included:

- a much better understanding of how salinity works for both practitioners and the community;
- some single urban salt reference committee/group;
- acceptance by government agencies that urban salinity needs to be better addressed;
- guidelines on vegetation management; and
- making salinity a top down issue.

Advocacy

WSROC has also recently contacted the Hawkesbury-Nepean Catchment Management Authority (HNCMA) recommending that urban salinity management should be considered in the development of plans and strategies. It also suggested that the Salinity Working Party be included in their consultation processes when actions are being developed.

In September 2005 WSROC hosted an *Urban Salt Conference - Risk Responsibility and Local Government* in Blacktown.

All the conference papers and resources were distributed and are being uploaded on an updated WSROC website. Links are being made to other NRM entities in the region (CMAs etc.) to the urban salinity website.

FutureWest comments

Thirteen local councils in Greater Western Sydney (GWS) and WSROC, with the assistance of MACROC, have co-operated to prepare *FutureWest* - a framework for improved forward planning and the better management of growth to ensure a sustainable, healthy and liveable region.

FutureWest: Greater Western Sydney Regional Planning and Management Framework was launched by the Minister for Western Sydney in April 2005. The document that took three years to develop, comprises four elements – extensive research into issues in the region; a vision statement; a regional strategy developing policy for ten strategic directions and a framework for establishing a regional management and performance approach. It has formed the region's input into the development of the State Government's Metropolitan Strategy.

FutureWest called for a clearer defined purpose for the region's rural lands, giving greater emphasis on their role for agriculture, rural living, rural landscapes the rural economy, biodiversity heritage and conservation. It stressed that growth at the expense of the environment is unsustainable.

Recent submissions

In October 2004 WSROC prepared a response to the Legislative Assembly Public Accounts Committee *Inquiry Into Sustainability Reporting In The NSW Public Sector*. The submission stressed that WSROC is of the view that the basic principles of sustainability discussed should be incorporated whenever strategic plans (such as a Metropolitan Strategy) or major legislative change (e.g. proposed reforms to Standard Provisions for LEPs in NSW) are formulated.

In a submission prepared by WSROC to the Department of Planning (October 2005) on *Managing Sydney's Growth Centres* WSROC stressed the following:

Detailed environmental assessment should be undertaken at the precinct planning stage. This would enable reconsideration of the need for integrated assessment referral to other agencies at the DA stage.

In respect of water and air quality no details are provided in the exhibition material or comments on the standards of air quality of water quality in the creeks. It is also not clear as to what standards of air and water quality are to be implemented. There is also no discussion of the impact of the proposed urban development on the existing water and air quality.

The distressed South Creek catchment already has extremely poor water quality and a saline landscape. The impact on groundwater of the urbanisation of the South-West Growth Centre area is an important issue that should be addressed; particularly in relation to the impact on the downstream areas already suffering from salinity issues.

In addition to the new growth that is planned to take place on 'greenfield' sites, the NSW State Government is also planning for 70% of growth to take place in the existing areas of Sydney. Urban regeneration at this scale also raises significant issues in respect of urbanization and densification of catchments with infrastructure not designed to cater for such increase in population. Impacts on the groundwater and associated salinity issues may well pose considerable problems for councils in older areas, who are already struggling to cope with the costs of replacement of ageing infrastructure assets.

It should also be noted that the residences in Western Sydney that have already been affected by salinity to date are often those in the most financially disadvantaged areas of the region. They are looking to Local Government for some financial support and the prevention of further damage.

Conclusion

WSROC and the Councils of Western Sydney welcome the Committee's interest in assessing the success of Federal programs that seek to reduce the extent of and economic impact of salinity in the Australian environment and will continue to work in partnership with other agencies to address this important issue.

At the Federal level there has been only little direct engagement with urban regions. Federal regional policy is focussed almost entirely on rural areas, yet the great majority of Australians live in cities. Greater Western Sydney is the biggest and perhaps the best example – already one in eleven Australians lives in the Greater West and the region is set to grow by over half a million people over the next 20 to 25 years.

Whilst there is little targeting of urban regions, these areas are often affected by the often-unintended consequences of Federal Government decisions.

At the State Government level WSROC is of the view that greater attention needs to be given to salinity issues particularly at the Metropolitan Planning Stage.

Salinity issues are of such complexity that the problems should be viewed as the responsibility of all three levels of Government.