NSW INLAND CATCHMENT MANAGEMENT COMMITTEES RESPONSE TO THE

HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE

NATIONAL INQUIRY INTO CATCHMENT MANAGEMENT

Prepared by: Jenny McLellan Chairperson Western Catchment Management Committee and Inland NSW Catchment Management Committee 29 July, 1999 **Contact:**

Nicole James Coordinator Western Catchment Management Committee Phone 0268361575 Fax 0268362988

National Inquiry Into Catchment Management

INTRODUCTION

The Lachlan, Murrumbidgee, North-West, Central West, Murray, Lower-Murray Darling and Western Catchment Management Committees (Inland CMC's) welcome the opportunity to respond to the Inquiry by the Federal House of Representatives Standing Committee on Environment and Heritage on Catchment Management.

It is of concern that there appears to be the assumption in the terms of reference that catchment management relates primarily to 'water resource issues'. While there is no doubt a linkage, the real situation is that catchment management is also very strongly about land and vegetation, which then impacts on water resource issues. This mistake is a common one and has held back the catchment management movement for many years because of the concentration primarily on water. If effective and appropriate land and vegetation management is implemented in a catchment area, the <u>outcome</u> of that is good water resources. This relates to both surface and ground water. Note that water flow through ground water may not be geographically the same as surface flow from the catchment.

Unless catchment management concentrates on land, vegetation and water management in a balanced and independent manner then effective water management will always be difficult to achieve.

1. The Development of Catchment Management in Australia

Over the 10 year period since the introduction of the *Catchment Management Act 1989* in NSW there have been notable changes in the approach to natural resource management and significant cultural and social shifts associated with the broad assimilation and adoption of the Total Catchment Management (TCM) philosophy.

TCM - a philosophy based on leadership, partnerships and long term attitudinal change leading to onground change and improved natural resource management. This approach is likely to be far more successful than establishing committees or boards that undertake onground activity on behalf of government and the broader community without attitude change.

The major difficulty with implementing Catchment Management is that people see themselves primarily "of a community/locality" not "of a catchment". Ownership of catchment management principles is difficult to achieve if ownership of land, vegetation and water issues is not achieved - the whole approach then becomes very difficult to realise.

This has been a major problem in the implementation of Total Catchment Management in NSW. The ownership was disjointed and certainly did not have full support from the community of NSW. This was evident in the low level of input in many catchments from local government and from various State Government departments. There was (still is) a far from "whole of government" approach, therefore there may be competing forces evident when implementing strategic approaches to catchment management. The misconception that catchment management relates primarily to water management strongly exacerbates this problem.

There has been acknowledgment and acceptance of catchment boundaries as providing the most logical geographical boundaries for effecting integrated, natural resource management in planning initiatives and through government restructuring which is leading to the realignment of organisational boundaries along catchment boundaries. For example, the boundaries of the former departments of Water Resources and Conservation and Land Management were re-delineated to coincide with catchment boundaries in 1995, when these departments were amalgamated to become the Department of Land and Water Conservation. More recently adoption of catchment boundaries has also been discussed in proposed restructuring and amalgamation of some local government areas.

A key feature of the TCM model in NSW has been the opportunity for widespread community participation in the development of catchment planning initiatives and natural resource decision making. Consistent with the TCM approach State government initiatives have increasingly sought to involve relevant stakeholders in planning, policy development and legislative reform and over recent years have made a particular effort to ensure more effective representation of the interests of minority stakeholder groups such as aboriginal people, ethnic communities and environmental interest groups. Membership of community based committees such as Catchment Management Committees and Committees established more recently under the NSW Water and Vegetation Reforms have seen a broadening of the interests and skills represented.

Decisions of natural resource committees eg Catchment Management Committees, Regional Vegetation Management Committees and River Management Committees are made by consensus and whilst the delays in decision making can sometimes be lengthy, it is generally felt that in ensuring consideration of all the relevant interest groups concerns and broader interest group ownership of plans more widespread commitment to the implementation of initiatives has been achieved. The current charter from the State government for water and vegetation reforms can only be achieved by utilising catchment management principles.

The technical rigour, community participation in and integration of natural resource planning has increased substantially over the 10 year period since the introduction of the *Catchment Management Act 1989* as have the equality of submissions for government NREM funding arising out of these plans. These developments together with the application of socio-economic overlays in catchment planning have enabled significantly improved decision making with regard to resource allocation in natural resource management and there has been a commensurate improvement in transparency and accountability in regard to decision making.

Cooperation between the different levels of government between different authorities and between the community and government has also improved substantially, leading to increased awareness and understanding of issues, a reduction in duplication of effort and more effective use of resources.

It is fair to say that despite the improvements in decision support tools and in the degree of cooperation and coordination in stakeholder activities that there continues to be considerable room for improvement with regard to effective allocation of resources, achieving optimal outcomes for investment dollars, cooperative effort, coordination of that effort and minimisation of duplication. However, TCM philosophy and the Catchment Management approach have played a major role in the advances that have been made and will continue to be the key to further progressing improved cooperation, coordination and achieving optimal natural resource outcomes for investment dollars.

Federal, State and Local government must show their strong commitment to catchment management by producing uniform and negotiated partnership agreements between themselves and the broader community. Unfortunately politics makes this extremely difficult to achieve.

For effective catchment management to be realised the main task is to get communities and government working in partnership under common goals and then to resource the implementation strategies at appropriate levels. Australia is in danger of becoming a nation of planners, policy makers, strategists etc to the detriment of the 'doers'. It is the latter that implement change not the former, and it is appropriate that resources be allocated very strongly towards this area of Catchment Management. The implementers range from individual landholders, landcare groups, community groups, trusts (commons etc) and local government, to advisory and extension staff of departments.

The involvement of the catchment community is essential to achieve better catchment management and to incorporate all the socio-economic parameters that are required if any degree of implementation is to be achieved. One of the hardest hurdles faced in natural resource management is to cause change on the ground. Change cannot occur until people realise that the result of their actions will affect others elsewhere in a catchment, and that achievements will only occur by means of a collaborative effort. Catchment Management is a tool to facilitate this change.

TCM has proved to be the most successful community based program for NREM developed by the NSW government and is the proven approach to creating a better understanding of the environment through the coordinated participation of the community.

The importance of TCM is recognised at all levels of government, by all agencies with NREM responsibilities and interests and by the broad cross-section of industry and community organisations. Importantly, it is recognised through the TCM Enhancement funding provided by the NSW government to the program and through the landholder contributions made to achieving sustainable NREM across all catchments within NSW. Current estimates put landholder contributions between \$4 and \$14 for every \$1 of government expenditure.

TCM has brought people and the government together to focus on NREM on a catchment basis. It is about communities and government working together to manage our natural resources in a responsible and integrated way for a sustainable future.

The benefits of a TCM approach are based on cooperation and the proven effectiveness of the community and government working together in a partnership to create action.

2. The Value of a Catchment Approach to the Management of the Environment

In NSW the value of a catchment approach is just starting to become apparent, with many individuals and community groups considering their actions in a catchment context rather than at property or local group scale. Issues such as dryland salinity, reduced water quality and reduced biodiversity need to be addressed at the catchment scale, rather than considering vegetation cover at the property level where vegetation communities can be lost over time by default ie there's plenty of native vegetation elsewhere.

When a community identifies its land and water issues and develops a cooperative plan to address these issues, it creates a powerful force to attract support from community groups (such as landcare groups), local government, industries, education institutions, government agencies and other communities with similar issues. Some of the specific benefits of the NSW – TCM approach have been:

- The establishment of Catchment Management Committees, which provides a cooperative forum where issues can be identified and raised openly, plans developed and conflicts resolved.
- An integrated approach to understanding social, economic and natural resource systems and interactions between those systems.
- A move towards the sustainable use of natural resources.
- The ability to attract financial and technical support from a wide range of sources to better manage the natural resources of the catchment.
- Improved access to and use of government financial and technical resources.
- More and better directed action 'on the ground'.
- Reduced duplication and better results arising from the coordination and integration of efforts.
- Allows for representation of the interests and concerns from a broad cross section of interest groups and geographical areas across the catchment in the natural resource decision making, generally
- Draws on a great diversity of skills and perspective's in NRM decision making
- Allows for community identification of catchment issues and participation in the development and implementation of strategies to address priority issues
- Is essential to ensure holistic, integrated management and to achieving optimal natural resource outcomes and benefits for the catchment community as a whole
- Helps to minimise duplication, increase synergism and minimise the likelihood of practices or tools being used in opposition to each other

- Considers the impacts that activities in one part of the catchment have on other parts of the catchment environment and on the community as a whole
- Allows the community and the government to look at the big picture regarding the overall long term health of the environment within a catchment system and to adopt a strategic approach to addressing natural resource issues at the catchment level
- The TCM structure is efficient and cost effective in that it achieves widespread involvement in and commitment to sustainable NRM including considerable voluntary in kind effort.
- Facilitates cooperation and coordination
- Provides a forum for resolving natural resource conflicts
- Is concerned with achieving a balance between resource utilisation and conservation

3. Best Practice Methods of Preventing, Halting and Reversing Environmental Degradation Catchments and Achieving Environmental Sustainability

Initiatives that have been and are being adopted by the various inland catchments to address these issues include the following examples:

Lachlan Catchment Management Committee

- Establishment of Lachlan Catchment Data Modelling and GIS NHT funded project. Will obtain digital natural resource management data covering the Lachlan Catchment including information on government funded NREM projects and utilise it within a data management system. The LCMC and other community groups will have access to relevant data and information for catchment planning and modelling and farm planning and analysis.
- Lachlan Remnant Vegetation Management Incentives program Incentives program for protection and management of high conservation remnant native vegetation with particular emphasis on the riparian zone.
- Local Government Taskforce established to oversee implementation of action plan arising out of workshop with Local Government representatives (General Managers and Environmental Planning Officers) and to further progress collaborative ventures/information/resource sharing between local government and other key NREM stakeholders and promotion and development of BMPs for natural resource management.
- Irrigation Development Forum involving key stakeholders including industry groups, key local and state government representatives, the CMC and RMC and water user groups proposed to be held in September to discuss issues relating to irrigation development in the Lachlan valley with a view to developing collaborative approaches to addressing common concerns and objectives and ensuring relevant outcomes are considered in the development of planning initiatives.

Joint venture between Lachlan, Central West and Western CMC's

• Establishment of Investment Database – collaborative venture that will enable the CMCs to satisfy NHT and Murray Darling Basin reporting requirements and to evaluate investment patterns against natural resource outcomes and strategic priorities. Evaluation of this nature will in turn allow for better targeting of future investment.

Murray Catchment Management Committee

• South West Slopes Revegetation Guide: This was prepared to indicate what native vegetation would have existed in each subcatchment on the South West Slopes of southern NSW. The guide provides technical advice on revegetation, seed collection, establishment, and remnant vegetation management between the Murrumbidgee and Murray rivers.

- Nature Conservation Fencing Incentive Program: The committee recognised the need to protect and mange remnant vegetation across the catchment. The Nature Conservation Working Group of the CMC developed a project to offer a \$1200 fencing rebate to landholders that agreed to fence and manage high value remnants. Greening Australia are managing the three year project which started in late 1996. To date 307 landholders have participated with 485 kilometres of fencing erected to protect and manage 4,403 hectares.
- Coordinated roadside vegetation management in the western half of the catchment involving Local Government, Rural Lands Protection Boards and Landcare Groups and government agencies. Promoted and identified a number of demonstration sites for farm forestry across the catchment.
- Water Quality Improvement Plan Nutrient Management Plan: This plan has been developed to minimise and reduce nutrient transfer and to improve water quality. Implementation will commence in August 1999.
- Water Quality Improvement Plan Water Quality Monitoring Strategy: Monitoring actions are being reviewed from a catchment perspective and future monitoring needs will be incorporated into the strategy. Emphasis is being placed on the quality of monitoring and ensuring monitoring is useful and efficient by establishing key sites to monitor river reaches. This strategy will be implemented in August 1999 onwards.
- Draft Natural Resource Management Strategy for the NSW Murray Catchment July 1999.

Joint Venture between the Western Catchment Management Committee and Lower-Murray Darling Catchment Management Committee

• 1999 Biodiversity Forum – 17-18 September 1999, Broken Hill - to provide information, education and skills to landholders/landusers in the semi-arid regions of NSW regarding biodiversity and nature conservation management.

Western Catchment Management Committee

- Western Catchment Regional Strategy 1997 (currently being reviewed) for the coordinated/consultative approach to natural resource and environmental issues in the Western Catchment. Includes the following Action Plans to ensure on-ground activities Land and Vegetation, Water and Community Awareness and Involvement.
- Western Catchment Regional Landcare Awards promotion, recognition and encouragement of onground works undertaken by Landcare groups within the catchment
- Western Catchment Community Awareness and Education Project NHT funded a series of initiatives designed to raise community awareness and education of the WCMC, natural resource management issues in the catchment and the philosophy of TCM

Central-West Catchment Management Committee

- Central West Salinity Strategic Plan –currently being undertaken; prioritises the subcatchments in the Central West in regard to salinity hazard
- Central West Conservation Farming Forum brought together industry, research and landholder groups involved in conservation farming in order to facilitate consistency in approach; improvements in techniques; updates on research.
- Similar Forums have been held for catchment wide stakeholders, Local Government, willow management
- Strategy for Management of Native Vegetation in Central West Catchment report and management plan; identifies plant communities, locations, occurrence and management recommendations.

North West Catchment Management Committee

- Establishment of Project Administration Database (PAD) a comprehensive database detailing projects funded through Federal and State sources since 1994. This is a valuable tool for monitoring the types of natural resource management issues, how they are being addressed and the regional distribution of funds. The information is integral in determining current trends as well as future funding priorities.
- Catchment Planning in the Namoi, Gwydir and Border Rivers Catchments provide a future framework for natural resource management and based on a comprehensive process of community consultation and involvement. As such, they are a point of reference for many other groups and individuals including single-focus committees such as Vegetation, Water and Floodplain Management, State Government agencies, Local Government, community and industry groups. The plans also form the basis of a Regional Strategy.
- Formation of one catchment committee for the Border Rivers (1999) the Border Rivers or Macintyre catchment is unique in that it crosses the NSW – Queensland State border. The NSW and QLD committees have just formed one committee to improve cooperation coordination and efficiency on cross border issues.
- Great Grazing Debate (Sept 1999) a joint initiative of the NWCMC and Sustainable Grazing Systems aimed at promoting sustainable grazing management. This is based on the recognition of the role of grazing management in improving catchment health, farm productivity and profitability and combines the experience of farmers with technical expertise of researchers and advisers.
- Numerous public forums including: "The Impact of Cloud Seeding", "Water in the catchment Conflict or Cooperation", "SEPP 46 – Your Contribution", "Managing Land Differently" and " Moving goal posts – the affects on farms and farm finances."

Lower Murray-Darling Catchment Management Committee

- Development of and employment of Coordinators/Project Officers for
 - 1. Lake Victoria Action Plan to address Best Management Practices, salinity problems and cultural heritage issues with regards to the property surrounding Lake Victoria, (ie its environs). Development of this Plan will be closely linked to the MDBC's Cultural Landscape Conservation Management Plan for the Lakebed itself.
 - 2. Menindee Lakes ESD Project to develop a Plan for the ecologically sustainable development and operation of the Menindee Lakes storage and environs. The Plan will provide a definitive reference source for future operational decision making
 - 3. Fletchers Lake Reserve Project. This Reserve is a disposal site for irrigation and stormwater drainage waters (from Coomealla/Curlwaa Irrigation Areas). A draft management plan has been completed and will assist in the lowering of the regional groundwater.
- The Lower Murray Darling Rangeland Management Action Plan. This Plan is nearing completion (within six months) and will demonstrate a broad, community-based strategic approach to rangeland management.
- The Darling Anabranch Management Plan Aims to find agreed alternatives to the current management of the Darling Anabranch through community ownership and consultation. In this first year of development, there has been a report on the environmental and economic values of the region. Water supply options are now being discussed and developed by the community.
- The Murray Wetlands Working Group Is an organisation organised around an important environmental issue, the continuing degradation of wetlands in the Murray and Lower Darling Rivers. The membership comprises representatives from three States, community organisations and government agencies. This, together with their combined technical and scientific expertise, is particularly relevant for a holistic viewpoint of the river system. Cross-disciplinary research is especially important, and the wetland rehabilitation projects the MWWG initiates all have a major research component to objectively evaluate and monitor the works, as well as providing feedback for effective adaptive management.

- Murray Darling Water Management Action Plan Development and/or completion of Regional Land Use Study, No Plan Scenario Study, Economic Assessment, Structural adjustment of the actual Plan, Cultural Heritage Study, Vegetation assessment, Hydrogeology Study, Natural Resource Study, Drainage Study
- Southern Mallee Clearing and Cultivation Plan development of a Plan whereby local stakeholders (landholders, government agencies, local aboriginal communities and local government) create a process whereby some additional sustainable development for dryland agriculture can occur in tandem with the creation of private reserve areas to enhance biodiversity conservation. This Plan has been contributed to and supported by the Lower Murray Darling Catchment Management Committee

Murrumbidgee Catchment Management Committee

(Appendix to be submitted at later date)

With regard to the implementation of BMPs for preventing, halting and reversing environmental degradation and achieving environmental sustainability it is suggested that the following should be adopted:

- Catchment Strategies should input into the development of statutory plans
- Monitoring and evaluation programs need to be improved

4. The Role of Different Levels of Government, the Private Sector and Community in the Management of Catchment Areas

- Need commitment from the Commonwealth government to provide ongoing funding for natural resource management projects that is not dependant on the sale of public utilities eg suggest that a percentage of the GST goes to natural resource management. Commonwealth generate revenue whilst States have statutory responsibility for natural resource and environment management. Commonwealth commitment currently inadequate and States dependant on Commonwealth support to effectively implement NREM programs.
- Need State government commitment to provide institutional structures that will provide the necessary support for effective catchment management and facilitate the retention of experienced staff. In this regard it is suggested regional delivery of natural resource management needs to be strengthened since catchments are the optimal unit for effecting integrated natural resource outcomes. Implementation of natural resource programs at subcatchment level is fragmented and at higher levels eg State level the concern is too large an area to achieve effective integration and optimal outcomes for the parts that make up the whole.
- Need local government commitment which recognises the role they have to play in effecting change at the local level and promoting adoption of BMPs which will deliver optimal outcomes for the catchment as a whole, and involvements in REPs
- Different levels of government have responsibility for addressing priorities at their respective levels of concern and for ensuring that plans at the three levels are linked.
- Need to facilitate greater industry and corporate involvement through promotion of responsible citizenship.
- Community participation likely to always be marginal but should be fostered through assistance and support being provided to those who are committed and through recognition and positions of influence being given to those who are displaying energy/results.
- The private sector needs to accept responsibility for the environment they manage and for reclamation in relation to developments or activities they have initiated. Over 90% of land privately owned therefore top down approach (ie regulation) will not work need cooperative approach.
- Local Government has an important role to play in natural resource management but are currently not adequately resourced to be proactive in catchment management. The community as resource users are the most important for involvement in catchments management.

Catchment committees must be the prime coordinating body to coordinate regional strategies in land, vegetation and water reform on a regional basis.

5. Planning, Resourcing, Implementation, Coordination and Cooperation In Catchment Management

- Some points relevant to this section are covered above
- CMCs operations are being limited by inadequate government funding and there is a need for greater support to be provided if the CMCs are to become more effective. In addition CMCs generally comprise a large number of members who have full time commitments else where to businesses and/or other jobs and who consequently have difficulty allotting the time to catchment management that is required to effectively manage extremely complex systems and issues.
- Cost sharing should be able to be negotiated at a local regional level so that natural resource management projects are encouraged in times of low commodity prices and/or production in that region.
- The establishment of the Natural Heritage Trust and increasing requirements associated with the implementation of Trust programs has lead to considerably increased administrative demands being placed on Catchment Management Committees without additional support being provided by the Commonwealth to meet these demands. These demands have been increasing annually and as a consequence other CMC responsibilities and activities have been suffering. For example, increased time requirements associated with administering assessment processes means that there is less time to contribute to other CMC activities and responsibilities such as facilitation of resource and information sharing between key stakeholders coordination of the activities of key stakeholders and facilitation of greater cooperation activities which are arguably more important to effecting best practice in catchment management than administration of assessment processes.
- As the Commonwealth is the major generator of revenue there is a need for the Commonwealth to provide appropriate funding support for the programs they want implemented including monitoring and evaluation programs. The \$20,000 provided thus far for monitoring and evaluation is inadequate for delivering any meaningful results. There needs to be commitment to support for ongoing monitoring and evaluation, provisions made for an appropriately resource body to store data over the long term including, piezometer readings, water quality testing etc and for appropriate technical support to be provided for effective monitoring and evaluation. A one off grant of \$20,000 is entirely inadequate and will achieve very little in terms of providing an indication of big picture outcomes associated with natural resource management programs and activities.
- For nearly 100 years governments actively encouraged clearing that has contributed to the current NREM problems there is now and will continue to be a need for government to contribute to the rectification of these problems.
- Consideration should be given to the introduction of an environmental levy to endure funding will continue to be available for preventing, halting and reversing environmental degradation in catchments and achieving environmental sustainability, eg similar to the Medicare levy that would be discrete for the environment.
- There is a need to review remuneration of community representatives on Committees. In order for Committee members to be adequately informed and to perform effectively at subcommittee and committee levels there is an increasing need for members to attend conferences, meetings, workshops and seminars etc. and inducement commensurate with the seriousness of the subject needs to be considered in order to attract the skills and commitment that is required. Members also need to be remunerated to the degree that they will consider their responsibilities seriously.
- Disincentives now apply to NSW government employees
- In conjunction and cooperation with Local Government, Catchment Planning should form the basis for development and review of REPs.
- With many planning initiatives coming to fruition there is a increased need for coordination of activities of different groups participating in plan development and implementation at the different levels.

These aspects are all important for successful catchment management. Finding the balance between them all is the ongoing challenge. Resourcing catchment management in NSW has been limited, which has reduced the ability for planning and implementation at the catchment scale. A great deal has been achieved in inland NSW by committees that meet four to five times per year on tight operating budget.

Funding of Dryland Action Plans

As an increasing number of community groups move into the implementation phase of their action plans, concern has been raised about the ability of government to provide ongoing support for these initiatives which they have strongly encouraged and to which groups have contributed considerable dollars, time and effort.

In the worst case scenario much of the benefit and effort associated with developing these plans could be lost if momentum is dissipated through groups being unable to access funds to assist with implementation programs.

The processing of these projects through the NHT 'One Stop shop' assessment also raises a number of difficulties in that project proposals which arise out of comprehensive dryland plans that have addressed government requirements must clearly be given a high priority. Regional priorities are to be part of a Regional Strategy endorsed by SAP and the Commonwealth. However, the decision as to the ranking of such a project is a difficult one since the dollars requested may be considerable and it is necessary to determine whether such a proposal should be funded at the expense of other projects that may be addressing priority issues in priority areas. The NHT Regional Assessment Panels were required to make such decisions this year and general comments from the panels were that we are not yet equipped to deal with such proposals through the NHT 'One Stop Shop' process.

There has been discussion about subjecting dryland plans to an approval process similar to the Land and Water Management Plans and about direct negotiation of dryland plan implementation proposals with government through Catchment Management Committees.

Given the increasing number of dryland plans moving into implementation phases there is need for these concerns to be addressed as a matter of urgency.

6. Mechanisms for Monitoring, Evaluating and Reporting on Catchment Management Programs including the Use of These Reports for State of the Environment Reporting and Opportunities for Review and improvement

- See point above regarding inadequacy of resourcing for monitoring and evaluation
- Neither Local Government, State Government agencies or the CMCs have the resources required for effective monitoring of NHT programs. This is an example of one of the many tasks/responsibilities that has been devolved to CMCs in the process of decentralisation/regionalisation that has been occurring over recent years without the accompanying resourcing that is necessary for implementation.
- Monitoring and evaluation needs to include several levels of input including data entry based on information provided in NHT application forms and input from agency staff with relevant expertise. Appropriate resourcing is required to enable this to occur and to enable CMCs to not only evaluate the impact of total catchment NREM activity on natural resource condition over time.
- Mechanisms need to be put in place to ensure outcomes of monitoring and evaluation programs are considered in periodic systematic reviews of catchment plans and NREM policy
- CMCs need to be more publicly accountable and it is suggested that annual reports should be made publicly available (additional resources will be required to enable this to occur, however). The reports should be available for use in reporting functions of Local and State Government.

Current mechanisms are generally poor and issue specific, rather than reporting on catchment health using agreed indicators. Use of current reporting for State of the Environment reporting is limited by the nature of the current mechanisms. The monitoring of consistent catchment health indicators will allow evaluation and reporting on catchment management programs Water quality is a classic example where there are many single purpose monitoring programs and associated data storages which are not used to interpret trend at the catchment scale.

The Inland Catchment Management Committees would be happy to oblige if any further information is required.