

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

WATER RESOURCES - TOXIC ALGAE

**A report from the Senate Standing Committee on
Environment, Recreation and the Arts**

DECEMBER 1993

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Cover: *Anabaena circinalis*

Inset: Algal bloom on the Darling River, November 1991

Photographs by D Eastburn and R Banens

Murray-Darling Basin Commission

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Contents

Terms of Reference
Recommendations

| | | |
|----|--------------------------------|----|
| 1. | Introduction | 1 |
| | Conduct of the Inquiry | 3 |
| | Acknowledgments | 4 |
| 2. | Causes of Algal Blooms | 5 |
| | Introduction | 5 |
| | Chemical Features | 5 |
| | Sources of Phosphorus | 6 |
| | Point Sources | 7 |
| | (a) Sewerage Systems | 8 |
| | (b) Detergents | 13 |
| | (c) Septic Tanks | 17 |
| | (d) Urban Runoff | 18 |
| | (e) Other Point Sources | 19 |
| | Diffuse Sources | 20 |
| | (a) Sediments | 20 |
| | (b) Fertilisers | 22 |
| | (c) Soil Erosion | 25 |
| | (d) Absence of Riparian Strips | 25 |
| | (e) Loss of Wetlands | 27 |
| | Comments on Phosphorus Levels | 29 |
| | Pesticides | 30 |
| | Other Chemical Factors | 31 |
| | Chemical Factors - Conclusions | 31 |
| | Physical Features | 32 |
| | Flow Rates | 32 |
| | Water Allocations | 33 |
| | Unregulated Sections | 35 |
| | Environmental Flows | 36 |
| | Flood Plains | 37 |
| | Additional Flows | 38 |
| | Future Requirements | 39 |
| | Urban Water Users | 41 |
| | Flow Rates - Conclusions | 41 |
| | Temperature | 43 |
| | Light | 44 |
| | Turbulence | 44 |
| | Turbidity | 45 |
| | Comments | 45 |

| | |
|--|------------|
| 3. Implications and Management of Algal Blooms | 47 |
| Effects of Algal Blooms | 47 |
| Public Concerns | 54 |
| Management of Algal Blooms | 56 |
| Public Warning Systems | 57 |
| Monitoring | 58 |
| Water Treatment | 63 |
| Cost of Algal Blooms | 65 |
| Control of Algal Blooms | 67 |
| Contingency Plans | 67 |
| Biological Control Mechanisms | 68 |
| Barley Straw | 69 |
| Wetlands | 71 |
| European Carp | 72 |
| Chemical Control Mechanisms | 73 |
| Herbicides | 76 |
| Pesticides | 76 |
| Physical Control Mechanisms | 77 |
| Economic Instruments | 78 |
| Transferable Water Entitlements | 83 |
| Pollution Measures | 85 |
| Comments | 86 |
| | |
| 4. A National Approach | 89 |
| Role of State and Territory Governments | 89 |
| Role of Local Governments | 94 |
| Role of the Community | 96 |
| Landcare | 100 |
| Waterwatch | 101 |
| Role of the Commonwealth | 103 |
| A National approach | 106 |
| National Water Quality Management Strategy | 107 |
| Coordinated Control of Major Catchments | 109 |
| Legislation | 114 |
| Development of Research Priorities/Guidelines for Action | 115 |
| Market Approach to Water Use | 119 |
| Early Warning System | 119 |
| | |
| 5. Summary of Issues | 121 |
| | |
| Appendix 1. List of Submissions | |
| Appendix 2. List of Public Hearings and Witnesses | |
| Appendix 3. List of Inspections | |

Terms of Reference

On 7 May 1992, the Senate referred to the Committee an inquiry on Water Resources - Toxic Algae. The terms of reference were as follows:

- a) The management of water, water use and water quality and the agencies involved, including those in Commonwealth, State/Territories and Local Government; and
- b) the impacts of agricultural, industrial and domestic use of and inputs to Australia's inland waterways, including rivers, tributaries, streams, creeks, lakes and underground waterways,

and, in keeping with ecologically sustainable development, the Committee inquire particularly into:

- c) whether flows allocated for environmental needs should be required in regulated rivers, or licence to divert should be restricted to enable adequate flows to be maintained;
- d) the extent to which nutrients should be reduced by removal of wastewater, feedlot runoff, irrigation flows and agricultural runoff; and
- e) the impact of these issues on continued sustainable farming, and the economic and social impacts on rural communities,

commencing with an inquiry into the impact of toxic algae upon Australian waterways.

Recommendations

Sewage Treatment

Recommendation 1

The Committee recommends in relation to sewage treatment works as a matter of urgency that:

- relevant local authorities be advised by the Commonwealth and State/Territory governments of the amount of possible funding available and the realistic timeframe for the provision of government funds to upgrade sewerage systems; and
- current funding mechanisms be revised to ensure that local governments are encouraged to take preventative actions where it is economically and environmentally beneficial to do so (Paragraph 2.10).

Recommendation 2

The Committee recommends that, following receipt of the forthcoming ARMCANZ report, a review of policies at all levels of government be conducted to ensure the consideration of alternative sewage treatment options when upgrading sewerage systems (Paragraph 2.11).

Recommendation 3

The Committee recommends the implementation of policies by the relevant authorities at all levels of government stipulating achievable minimum effluent standards for point source nutrient pollution (Paragraph 2.12).

Recommendation 4

The Committee recommends that the development of the National Water Quality Management Strategy include an urgent review by the responsible authorities of the efficiency of existing sewerage systems to establish their performance levels relative to their capacity to remove nutrients (Paragraph 2.13).

Recommendation 5

The Committee recommends that the development of the National Water Quality Management Strategy include urgent attention being given by responsible authorities to situations where effluent overflows or bypasses sewage treatment plants (Paragraph 2.14).

Recommendation 6

The Committee recommends that the development of the National Water Quality Management Strategy include information relating to the successful use of treated sewage for irrigation being circulated to local communities who might take advantage of this approach (Paragraph 2.15).

Recommendation 7

The Committee recommends that the development of the National Water Quality Management Strategy include provision for a full environmental impact assessment being conducted prior to establishing any land disposal site for sewage (Paragraph 2.16).

Phosphates in Detergents

Recommendation 8

The Committee recommends that existing and proposed campaigns to achieve lower phosphate levels in detergents through marketing strategies be continued (Paragraph 2.19).

Recommendation 9

The Committee recommends that if a significant reduction in levels of phosphorus in detergents has not been achieved within two years then legislation be enacted to reduce levels or to ban phosphates in detergents (Paragraph 2.22).

Recommendation 10

The Committee recommends that if the reduction in the levels of phosphorus in detergents is to be addressed through legislation then the manufacturers be given reasonable time to develop new or improve existing products (Paragraph 2.26).

Recommendation 11

The Committee recommends that a national approach be adopted in relation to truth in labelling for detergent manufacturers in relation to phosphate levels (Paragraph 2.26).

Septic Tanks

Recommendation 12

The Committee recommends that as part of the development of the National Water Quality Management Strategy, ARMCANZ take steps to ensure that there is a mandatory requirement to have septic tanks de-sludged on an annual basis as a condition of installation (Paragraph 2.30).

Urban Runoff

Recommendation 13

The Committee recommends that as part of the development of the National Water Quality Management Strategy, the provision of dual reticulation systems for the use of 'grey water' be considered in the development of new housing estates on a national basis (Paragraph 2.31).

Recommendation 14

The Committee recommends that as part of the development of the National Water Quality Management Strategy, adequate treatment of storm water runoff to prevent nutrient pollution of waterways be incorporated as an integral part of the planning of new urban developments (Paragraph 2.33).

Data on Nutrient levels

Recommendation 15

The Committee recommends that all data collected by government instrumentalities in relation to nutrient levels be made available to other agencies and the public (Paragraph 2.66).

Water Allocations

Recommendation 16

The Committee recommends that as part of the development of the National Water Quality Management Strategy, no further irrigation water entitlements be issued in any area until it has been established that there is adequate water available to meet the environmental requirements of the downstream sections of the waterway after existing allocations have been used (Paragraph 2.73).

Unregulated Flows

Recommendation 17

The Committee recommends that the Commonwealth Government use its influence to facilitate the urgent consideration of further controls on the unregulated sections of major waterways to ensure the passage of environmental flows and water for downstream users (Paragraph 2.76).

Off-Allocation Flows

Recommendation 18

The Committee recommends that as part of the development of the National Water Quality Management Strategy, urgent attention be given to feasibility of the continued use of off-allocation flows, and that the communities concerned be advised accordingly (Paragraph 2.76).

Recommendation 19

The Committee recommends that as part of the development of the National Water Quality Management Strategy, urgent attention be given by the responsible authorities to the feasibility of meeting existing water allocations in the future, including those that have been granted but not yet used, and that the communities concerned be advised accordingly (Paragraph 2.76).

Environmental Flows

Recommendation 20

The Committee recommends that the Commonwealth Government use its influence where possible to facilitate the introduction of environmental allocations nationally after consideration of the legal, social and economic implications (Paragraph 2.79).

Flood Plains

Recommendation 21

The Committee recommends that as part of the development of the National Water Quality Management Strategy, the approval of future developments be dependent on an assessment of the impact on downstream flood plains (Paragraph 2.80).

Public Concerns

Recommendation 22

The Committee recommends that contingency plans be required to outline the procedures to be carried out at local, State/Territory and Commonwealth levels in the event of algal blooms (Paragraph 3.22).

Recommendation 23

The Committee recommends that as part of the development of the National Water Quality Management Strategy, water managers and health departments be provided with sufficient information in relation to the treatment of algal blooms for them to be able to make timely decisions in relation to the management of water bodies (Paragraph 3.22).

Recommendation 24

The Committee recommends that communities be informed of the reasons for decisions taken by water managers and health departments to address toxic algal blooms in their areas (Paragraph 3.22).

Public Warnings

Recommendation 25

The Committee recommends that:

- a set of guidelines outlining the procedures and responsibilities of water managers and health authorities to provide adequate public warnings be developed; and
- a comparative study of the effectiveness of various warning mechanisms be undertaken and water managers be advised of the full range of options available (Paragraph 3.27).

Recommendation 26

The Committee recommends that it be part of the procedures for advising the public of the presence of algal blooms that notification should also be given when the danger has subsided (Paragraph 3.28).

Monitoring

Recommendation 27

The Committee recommends that a national set of guidelines in relation to the monitoring of algal blooms be adopted as soon as practicable (Paragraph 3.35).

Recommendation 28

The Committee recommends that the Commonwealth Government give consideration to providing the necessary resources for the collation and analysis of the available historical data on algal blooms, nutrient levels and flow rates (Paragraph 3.40).

Recommendation 29

The Committee recommends that consideration be given to the establishment of a number of long-term national reference monitoring sites (Paragraph 3.41).

Legislation

Recommendation 30

The Committee recommends that the development of new legislation or other regulatory measures be required to demonstrate that due consideration has been given to the link between the natural resource industries and the environment (Paragraph 4.7).

Regulatory Mechanisms

Recommendation 31

The Committee recommends that as part of the National Water Quality Management Strategy, regulatory mechanisms be reviewed to ensure that the respective responsibilities and roles of various government agencies are clearly defined (Paragraph 4.8).

Incentive Schemes

Recommendation 32

The Committee recommends that as part of the National Water Quality Management Strategy, consideration be given to the effectiveness of incentive schemes for improving agricultural techniques in relation to maintaining water quality (Paragraph 4.10).

Community Awareness

Recommendation 33

The Committee recommends that as part of the National Water Quality Management Strategy, the state of community awareness in relation to algal blooms be assessed so that specific problem areas can be identified (Paragraph 4.28).

Preventative Action

Recommendation 34

The Committee recommends that as part of the National Water Quality Management Strategy, a review be conducted of government policies to establish whether there is potential to provide incentives for members of the community to undertake preventative actions in relation to maintaining water quality (Paragraph 4.44).

National Water Quality Management Strategy

Recommendation 35

The Committee recommends that the guidelines for the National Water Quality Management Strategy be based on environmental criteria as well as physio-chemical factors (Paragraph 4.61).

Recommendation 36

The Committee recommends that the guidelines for the National Water Quality Management Strategy be sufficiently flexible to accommodate the natural variability in Australian freshwater ecosystems (Paragraph 4.61).

Recommendation 37

The Committee recommends that the development of performance indicators to measure the effectiveness of outcomes of proposed strategies in relation to water quality be an integral part of integrated catchment management (Paragraph 4.62).

Integrated Catchment Management

Recommendation 38

The Committee recommends that adequate funding of integrated catchment management bodies be ensured, possibly as a proportion of the total expenditure on resource management (Paragraph 4.64).

Recommendation 39

The Committee recommends that community representatives be elected by their communities to positions on integrated catchment management committees (Paragraph 4.67).

Government Policies

Recommendation 40

The Committee recommends that the relevant government agencies be required to demonstrate that due consideration has been given to the impact of individual policies on other government or community programs in accordance with a multi-objective approach to management of resources (Paragraph 4.73).

Recommendation 41

The Committee recommends that the relevant government agencies be required to demonstrate that due consideration has been given to the integrated catchment approach in the implementation of economic and regulatory measures (Paragraph 4.76).

Research Funding

Recommendation 42

The Committee recommends that the current level of Commonwealth Government funding for research be maintained if not increased, and that consideration be given to long-term funding security for approved research projects (Paragraph 4.92).

