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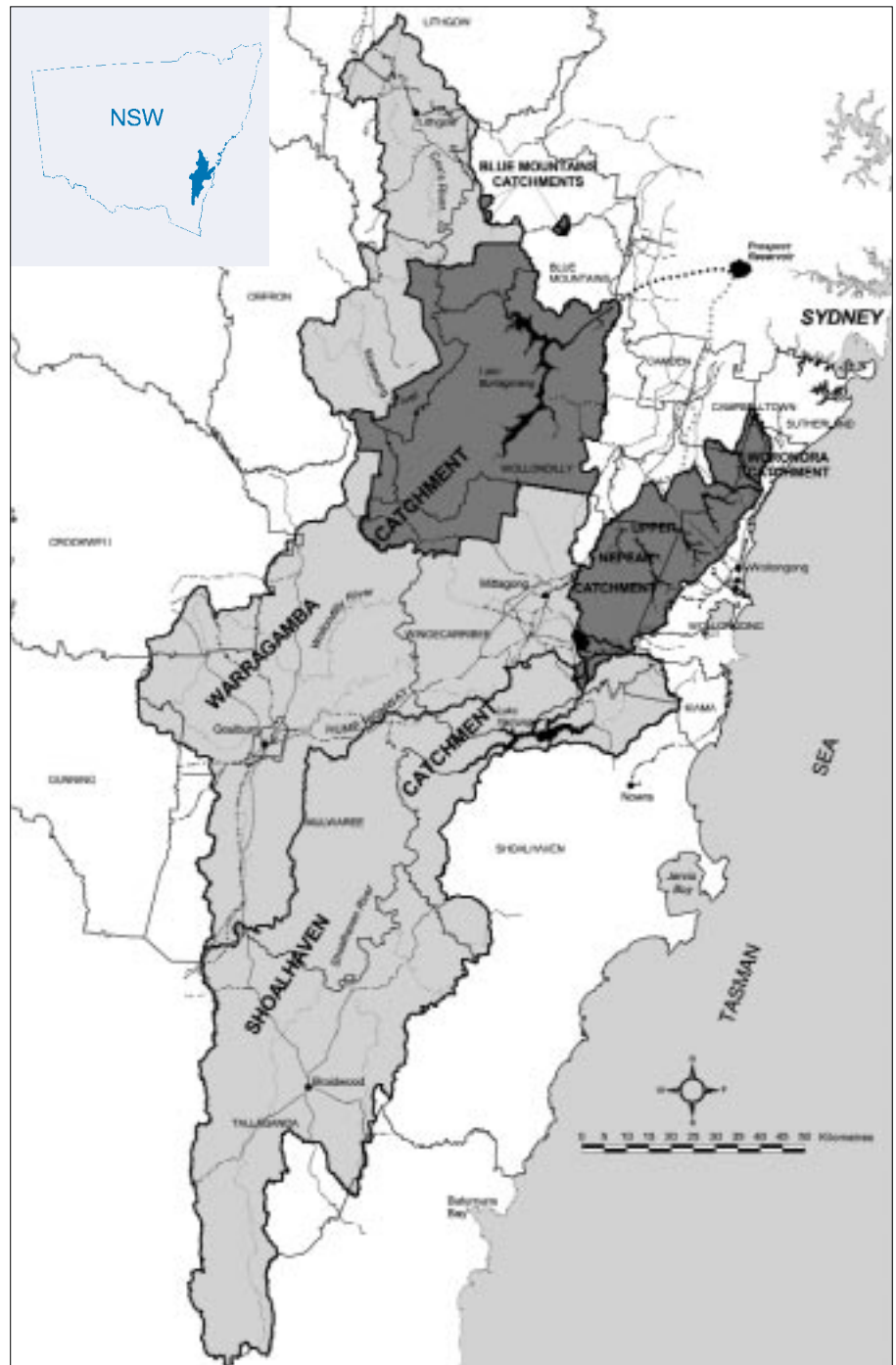
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# Sydney's Water Supply Catchments

A catchment is an area where water is collected by the natural landscape. In a catchment, all rain and run-off water eventually flows to a creek, river, lake or ocean, or into the groundwater system.

Sydney's water supply catchments are made up of five catchment systems: Warragamba, Upper Nepean, Woronora, Shoalhaven River and Blue Mountains. These catchments cover a vast area – around 16,000 square kilometers – and supply water to over 60 per cent of the state's population.

Natural and human systems, such as rivers, bushland, dams, farms, homes, plants, animals and people exist alongside one another in Sydney's water supply catchments.



## Greater Sydney's Drinking Water Catchments

- Greater Sydney's Drinking Water Catchments
- Special Areas
- Warragamba Pipeline
- ..... Upper Canal



# Letter to the Minister

Sydney Catchment Authority  
Level 2, 311 High Street  
Penrith NSW 2750

31 October 2001

The Hon. Robert Debus M.P.  
Attorney General, Minister for the Environment,  
Minister for Emergency Services  
and Minister Assisting the Premier on the Arts  
The EPA Building  
Level 25, 59–61 Goulburn Street  
Sydney NSW 2000

Dear Minister,

We have great pleasure in submitting the 2000–2001 Annual Report of the Sydney Catchment Authority for the year ended 30 June 2001 for presentation to the Parliament of New South Wales.

The report has been prepared in accordance with the Annual Reports (Statutory Bodies) Act 1984, the Annual Reports (Statutory Bodies) Regulation 1995, the Public Finance and Audit Act 1983, and the Public Finance and Audit Regulation 2000.

John Whitehouse  
SCA Board Chair

Graeme Head  
Acting Chief Executive



# Report from the SCA Chair

The Sydney Catchment Authority (SCA) was given a very specific job to do when it was formed in 1999. That job is to deliver high quality untreated water to drinking water suppliers like Sydney Water, who then treat and deliver the water to more than four million people in Sydney, the Blue Mountains, the Illawarra and the Southern Highlands.

To do that job, we protect around 16,000 sq kms of drinking water catchments, protect water quality, manage Sydney's 21 major dams, and help educate people about water management and catchment protection.

We did this job in the 2000–2001 financial year by working with the community and other agencies in the following key areas:

## **WATER QUALITY MONITORING**

The SCA has adopted a multi-barrier approach to water quality. This means that we use a system of measures to protect the quality of drinking water. We treat and protect water quality in the catchments. We test and protect water quality in our storage dams. This approach was entrenched during the year in our Bulk Raw Water Quality Management Plan.

As part of that multi-barrier approach, we refined our pathogen monitoring program in consultation with the Department of Health and Sydney Water. The new testing regime means we can better target testing for protozoa like *Cryptosporidium* and *Giardia* in the catchments and dams.

We have commenced a \$2 million 'early warning' water quality modelling system for Lake Burragorang and Prospect Reservoir. The model will give us the ability to accurately forecast contamination threats to Lake Burragorang and Prospect Reservoir up to 10 days in advance, depending on the type of contamination and where it is.

Importantly, we're doing additional significant scientific research so we can provide the best possible protection of water quality. During the year, the SCA started a five-year research program that will help us identify and assess pollution sources, understand how pollutants may travel between the source and the dam storages, and evaluate the impact of pollution on water quality.

## **BULK WATER SUPPLY**

The SCA continued to maintain and improve our ability to deliver high quality raw water to our customers. During 2000–2001, we supplied 630,575 Megalitres of raw water to Sydney Water, Wingecarribee Shire Council, Shoalhaven City Council and other customers. More than 96 per cent of the total water delivered to Sydney Water's filtration plants conformed to water quality measures set between the SCA and Sydney Water. One hundred per cent of the water we provided from Warragamba Dam – which supplies 80 per cent of Sydney's water – conformed to the water quality measures.

We also did significant work — as part of the new \$150 million Auxiliary Spillway Project— to bring Warragamba Dam up to international dam safety standards. The new spillway, which will protect Sydney's main source of drinking water in extreme floods by diverting floodwaters safely around the dam, will be finished in 2001–2002.

During the year, the SCA spent nearly \$5.5 million upgrading the Upper Canal, Prospect Reservoir, Tallowa Dam, and the Warragamba pipelines.

Our 21 storage dams and weirs continued to meet safety standards established by the Australian National Committee on Large Dams and the NSW Dams Safety Committee.

## **PROTECTING THE CATCHMENTS**

There was significant on-ground activity in the catchments during 2000–2001. The SCA invested more than \$20 million from sales of water back into improving catchment health.

Through our budgeted \$4 million Healthy Catchments Program, we supported community groups and local authorities in their significant efforts to repair rivers and creeks in their local catchments. The SCA also implemented projects to rehabilitate old mine sites, collect household chemicals, control pests and weeds, improve riparian management, develop demonstration sites, and target stormwater. We also joined with the Department of Land and Water Conservation to help farmers and landowners remediate their lands and address erosion.

In May 2001, the Minister for the Environment endorsed the Wingecarribee Swamp and Special Area Plan of Management and the Special Areas Strategic Plan of Management (SASPoM), which will ensure that Wingecarribee Swamp and the Special Areas around the storage dams are managed as ecosystems that will continue to protect water quality.

In June, the Minister outlined the SCA's commitment to spend \$20 million in the next five years to upgrade sewerage systems in the catchments. As part of the SCA's sewerage acceleration program, the SCA committed \$700,000 to upgrade Goulburn's sewerage treatment plant in 2000–2001. During the year, we prepared a catchment sewerage study to help prioritise funding for future sewerage upgrades.

The development of a regulatory framework is critical to protecting the catchments. The SCA has continued to work closely with the Department of Urban Affairs and Planning (DUAP) and catchment communities to develop a Regional Plan (RP) for Sydney's drinking water catchments. DUAP and the SCA have been working with community stakeholder groups to address initial community concerns about the RP, before the plan is re-exhibited.

We also began developing a broad regulatory framework, which will allow us to exercise certain regulatory powers under the Protection of the Environment Operations Act 1997.

In 1999 the first independent audit of the catchments was undertaken by Dr John Williams of the CSIRO.

In response to the audit, the SCA has:

- ensured it remains focused on the whole catchment area
- applied the neutral or beneficial water quality test to certain new development in the catchments
- contributed to the development of the Regional Plan
- developed a Pollution Source Risk Management Plan that identifies, assesses and prioritises pollution sources in the catchments
- implemented a science and research program, and
- addressed information gaps about the catchments.

### COMMUNITY CONSULTATION AND EDUCATION

The SCA significantly increased its educational role and its presence in the catchments.

We established new offices in Moss Vale and Goulburn allowing us to develop closer working relationships with community-based groups, councils, landowners and industry.

We continued to develop the foundation of an expanded education program that will take the message of catchment sustainability to a range of audiences. We substantially completed a Community Awareness Research Survey that will allow us to benchmark community attitudes and plan future education initiatives. Our new mobile education unit — which will hit the road in early 2002 — will allow us to extend our educational program into the catchments. We will use a major revamp of the SCA's Website as a platform for educational programs about catchment protection and water quality. We also took the decision to bolster Streamwatch, which will allow us to significantly expand the program throughout schools in the catchments. These educational initiatives complemented the SCA's schools program at Warragamba, our student enquiry service, and a program of community events during the year.

In 2000–2001, the SCA extended its links to the communities in the catchments by forming two Regional Consultative Committees and a Local Government Reference Panel. The committees and panel have provided significant advice to the SCA.

Importantly, 2000–2001 saw the SCA develop a wide range of new working relationships with people and organisations within catchment communities, as we sought to deliver programs that will benefit the health of the catchments. Individuals, community groups, councils, and industry groups throughout the catchments played a valuable and integral role in the SCA's activities.

### SOUND MANAGEMENT

The SCA put in place a Strategic Priorities Action Plan that ensures we target sewage effluent, improve stormwater discharges, enhance riverine ecosystems, manage development in the catchments, provide education to the community, undertake scientific research, maintain our bulk water system, and deliver high quality water to our customers. We prepared a five-year Business Plan that focuses everything we do on our strategic goals.

During the year, we underwent our first Operating Licence Audit. The Operating Licence Auditor gave the SCA a high level of compliance. The Independent Pricing and Regulatory Tribunal determined the SCA's five-year price path. We also submitted a Statement of Financial Framework that was endorsed by Minister Robert Debus and Treasurer Michael Egan.

### THE CHALLENGES AHEAD

The SCA remains focused on delivering high quality bulk raw water to its customers.

In the coming year we will strengthen the protective barriers we have established in the catchments and the storage dams.

We will deliver a \$26 million program that will target pollution sources in the catchments and improve the health of rivers and creeks. We will also need to respond to the 2001 Catchment Audit. And we will need to continue to improve our scientific understanding of Sydney's drinking water catchments.

A major challenge will be the continued development of the Regional Plan – Sustaining the Catchments. The communities in the catchments have raised significant issues that will need to be substantially addressed if the plan is to work effectively to manage water quality.

Implementing our Bulk Raw Water Quality Management Plan is integral to our ability to supply quality water in the right quantity.

In the long term, the quality of our water and catchments will be best protected and managed by a community that places a premium on environmental sustainability. Our challenge is to be an active advocate for a catchment protection ethic, through our values, our deeds, and an innovative and vigorous education program.

In the last year, the SCA has established programs in the catchments and around its 21 dams that are protecting the drinking water of four million people. These programs have been delivered by SCA staff who remain enthusiastic and dedicated to the protection of the catchments and supply of high quality bulk raw water.

We look forward to the year ahead, and the opportunity to build on the success of the past year.

*John Whitehouse*

John Whitehouse  
SCA Board Chair

# Key achievements of the year

The principal goal of the Sydney Catchment Authority for 2000–2001 was to provide quality bulk water through responsible management of the catchments and resources. Some key achievements in fulfilling this aim are highlighted here.

## SUPPLY OF QUALITY WATER

- provided a reliable supply of bulk raw water, meeting 100 per cent of quantity requirements
- developed strategies to optimise the quality of water in storages including the development of the Bulk Raw Water Quality Management Plan
- commenced structured, prioritised research program targeting sources and effects of water contaminants and activities that impact on water quality
- bulk water supplied to Sydney Water Corporation met 96 per cent conformance with quality standards specified for each plant in the Bulk Water Supply Agreement and 99.7 per cent conformance to Australian Drinking Water Guidelines in relation to pesticides and heavy metals

## PROTECTING THE HEALTH OF THE CATCHMENTS

- played a major role in reviewing development proposals under State Environmental Planning Policy (SEPP) 58 to ensure the quality of water in the catchments and the storages was not compromised
- implemented major capital works programs, in conjunction with the Environment Protection Authority (EPA), Department of Land and Water Conservation (DLWC) and local councils, to reduce sewage effluent impacts on catchments
- instigated responsible land management through adopting the Special Areas Strategic Plan of Management (SASPOM) and Wingecarribee Swamp and Special Area Plan of Management
- advanced SCA's catchment protection, enhancement and community involvement goals through the Healthy Catchments Program

## COMMUNITY CONSULTATION AND EDUCATION

- incorporated key educational messages into presentation material, publications, and media stories including the importance of protecting the catchments and the role of the SCA
- continued the commitment to fostering student knowledge and understanding of the catchments, and assisted students seeking information and research material at secondary and tertiary levels
- extended links to the communities in the catchments by forming two Regional Consultative Committees and a Local Government Reference Panel, and through the provision of community grants
- established a central library as a community resource for catchment information

## MANAGING THE BUSINESS

- successfully completed the Operating Licence Audit with findings of high to full compliance
- achieved full compliance with NSW Dams Safety Committee requirements
- SCA was granted a Water Management Licence under the Water Act 1912
- received a Medium–Term Price Path Determination from the Independent Pricing and Regulatory Tribunal for the supply of water and services by the SCA, covering the period 1 October 2000 to 30 June 2005
- achieved significant progress on the \$150 million Auxiliary Spillway Project to bring Warragamba Dam up to international dam safety standards
- developed action plans for sustainable energy and waste management throughout the SCA
- developed System Management Plans (SMPs) for the SCA's seven water infrastructure systems to provide accountable asset management
- enhanced preparedness to manage any incident through development of systems, processes and resources.



# About the Sydney Catchment Authority

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## INTRODUCING THE BOARD

### MR JOHN WHITEHOUSE

John Whitehouse is the Chair of the SCA. He is a Solicitor and Partner with the Sydney office of Minter Ellison. He is the National Practice Head for Planning and Environment Law. He was formerly a Director of Sydney Water Corporation. Prior to joining Minter Ellison, he was a Partner with Dunhill Madden Butler, Director of the NSW National Parks and Wildlife Service, and Assistant Director NSW Department of Environment and Planning. John holds degrees in Law and Arts from Sydney University, has a B.Sc. from Macquarie University and a Diploma in Legal Practice from the University of Technology, Sydney. He is a Fellow in Environmental Studies at Macquarie University and an Honorary Professorial Fellow in the School of Law, Wollongong University.

### MS HELEN CAMERON

Helen Cameron is a professional company director on the boards of AMRAD Corporation, TDG Logistics, Rural Industries Research and Development Corporation, Deputy Chairperson of Foodbank NSW and a Director of Foodbank Australia. In addition, Helen is a Director of BBY Limited where she acts in an executive advisory capacity on food, agribusiness and biotechnology transactions. Helen is a member of the NSW Food Forum and the editorial board of the Journal of the Securities Institute of Australia. She has held senior management positions in National Foods Limited and Burns Philp Limited. She was formerly a Director and Head of Research of a leading stockbroking firm where she specialised in food and agribusiness companies. Helen holds an MBA from Macquarie University (NSW), and a B.Sc. from the University of Canterbury (New Zealand).

### MR JOHN ASQUITH

John Asquith is currently the Hon. Secretary of the Nature Conservation Council, Chair of the Central Coast Community Environment Network and Director of the Central Coast Centre for Sustainability. John is a Trustee of the NSW Environmental Trust, and a part-time member of the Newcastle University staff in Sustainable Resource Management. He has considerable experience in infrastructure management and is a member of several environmental organisations and committees. John has professional qualifications in engineering and management and substantial experience in environmental activities.

### MR JOHN KLEM

John Klem has lived in the Sydney water supply catchment for the past 35 years where he farms sheep and cattle in the Goulburn area. John was a previous Chair of the Wollondilly Catchment Committee and Chairs a local Landcare group. He presently Chairs the State Catchment Management Coordinating Committee. John, who has formal qualifications in education and agriculture, was a head teacher in rural TAFE for 15 years.

### DR KERRY CHANT

Dr Kerry Chant is a public health physician and a Director of the South Western Sydney Area Health Service Public Health Unit. The Unit has a key role in infectious disease surveillance, prevention and control, food safety and environmental health issues in South Western Sydney. Her particular area of interest is the prevention of infectious diseases. Dr Chant is a member of the Royal Australian College of Physicians, Faculty of Public Health Medicine and has a Bachelor's degree in Medicine and Surgery. Her post-graduate degrees include a Masters in Public Health and a Masters in Health Administration.

### MR KENNETH WHEELWRIGHT

Kenneth Wheelwright manages a grazing property situated in the catchment on the upper reaches of the Wollondilly River. He also represents the NSW Farmers' Association. Kenneth has been actively interested in developing sustainable and profitable farm management practices. Kenneth holds a degree in Rural Science from the University of New England and has also been involved with tertiary education of agricultural students. More recently he obtained business qualifications and training in holistic management.

### MS PATRICIA GILCHRIST

Patricia Gilchrist is an environmental and town planner with an extensive background in both local government and the private development sector, concentrating in recent years on policy development and analysis, and negotiated issue resolution. She has worked on a wide range of applied policy issues covering environmental management systems, planning and development processes, urban design, infrastructure pricing, and conflict resolution. Patricia has been the Executive Director of the NSW Urban Development Institute of Australia since 1997.

### MR JEFF WRIGHT

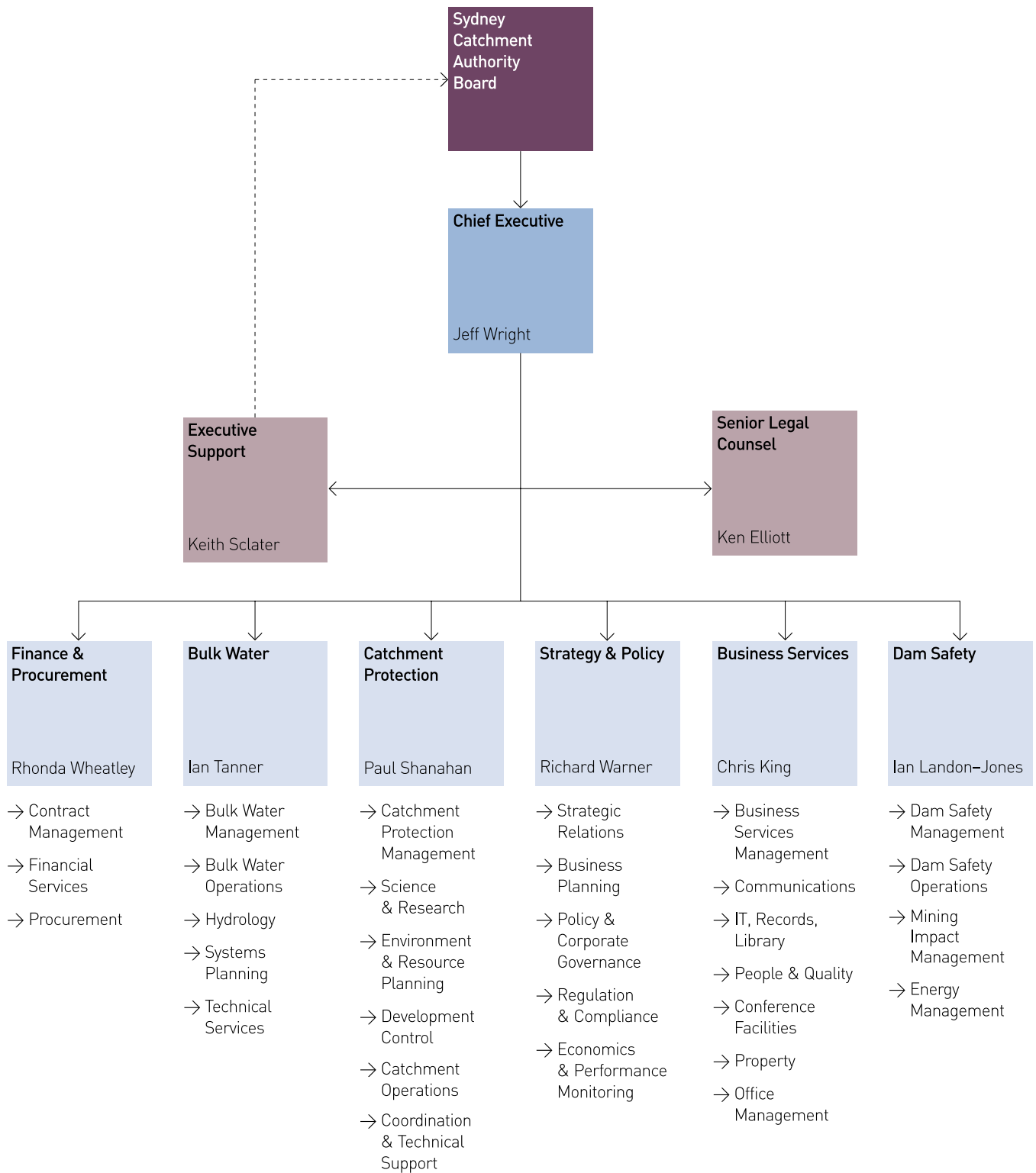
During the year of this report, Jeff Wright was CEO and Deputy Chair of the SCA. Jeff has been Chief Executive Officer of EPA Victoria, the Victorian Department of Agriculture, and the Mornington Peninsular Water Board. He also served as a Commissioner on the Victorian Health Commission and the Murray-Darling Basin Commission. In NSW, he has been Assistant Director of the former State Pollution Control Commission, and has been General Manager of Coffs Harbour City Council and Wingecarribee Shire Council. Jeff's first degree is in civil engineering, and he has a Master's degree in public health engineering. He also has post-graduate diplomas in finance and in operations research, and a company director's diploma.





# About the Sydney Catchment Authority

## ORGANISATIONAL STRUCTURE







# About the Sydney Catchment Authority

## COMPOSITION OF THE SCA

The statutory roles, functions and objectives of the SCA are delivered through a corporate governance structure that comprises:

- the SCA's Responsible Minister
- a Board comprising eight members
- the Chief Executive, and
- the Executive Team.

### ROLE OF THE RESPONSIBLE MINISTER

The SCA is subject to the direction and control of its Responsible Minister in accordance with section 11 of the Sydney Water Catchment Management (SWCM) Act 1998 except in relation to the contents of any report or recommendation made by the SCA. The Board may request the Responsible Minister to review a direction given to the SCA.

### ROLE OF THE BOARD

The Board of the SCA carries out the functions assigned to it by section 8 of the SWCM Act to:

- determine policies and long-term strategic plans
- endeavour to ensure that the SCA meets all public health and environmental requirements set out in the SCA's Operating Licence and any other relevant instrument
- oversee the effective, efficient and economical management of the SCA
- prepare the Annual Report and any other reports which the SCA is required to furnish under the SWCM Act, and
- endeavour to ensure that the water supplied by the SCA to the Sydney Water Corporation and the SCA's other customers complies with appropriate standards of quality.

The Board meets once monthly and, when necessary, considers material and issues out of session.

The Board delivers governance, stewardship and leadership and is responsible for adopting the SCA's business plan, capital works program, budgets, and setting and reviewing strategic corporate goals. The Board also reviews, and where necessary, approves major capital expenditure, acquisitions and disposal of land and assets, and raising capital. It is also responsible, through an audit committee of the Board, for overseeing audit and compliance functions.

In making decisions, the Board takes into account the responsibility to meet the SCA's specific obligations imposed by the SWCM Act, the Operating Licence and the general law. The Board, when determining policies and long term strategic plans, is mindful of the role of other government agencies and the need to adopt a whole-of-government approach to carrying out its roles and functions.

### BOARD COMPOSITION

The appointment of Board members is governed by section 7 of the SWCM Act. The Board consists of the Chief Executive and not fewer than four and not more than seven members, who are appointed by the SCA's Responsible Minister.

The Board currently comprises eight members, including the Chair and the Chief Executive. The Chief Executive is the only executive board member

Of the Ministerial appointments to the Board, one is to be a nominee of the New South Wales Farmers' Association and one other is to be a nominee of the Nature Conservation Council of New South Wales. The Minister advertises publicly for nominations, prior to making appointments to the Board.

Ministerial appointments to the Board must each or together have expertise in the areas of the protection of the environment and public health, and such other expertise as the Minister considers necessary to enable the SCA to realise its objectives.

With the exception of the Chief Executive, an appointed Board member holds office for the term specified in their letter of appointment. This term must not exceed three years. An appointed Board member, whose term has expired, is eligible, if qualified, for reappointment.

The Board members were appointed on 4 March 1999 and their tenure expires on 3 March 2002.



# About the Sydney Catchment Authority

## COMPOSITION OF THE SCA cont'

### ETHICAL STANDARDS

The SCA has published an employee Code of Conduct, which sets out standards for appropriate ethical and professional conduct for employees. The Code of Conduct addresses issues of:

- responsibility of employees for ethical behaviour
- use of the SCA's resources
- secondary employment
- privacy and confidential information, and
- conflict of interest.

The Board expects SCA employees to comply with the Code of Conduct.

The Board has developed protocols for members to disclose and record direct or indirect pecuniary interests. A Board member who has any such pecuniary interest is not able to be present at any deliberation of the Board when the matter is being considered, or to take part in the making of the Board decision on the matter.

### ESTABLISHMENT OF COMMITTEES AND WORKING GROUPS

The Board has established specific purpose committees and working groups to oversee the audit function and advise the Board on specific issues.

### BOARD ATTENDANCE AT MEETINGS

**TABLE 1: SCA MONTHLY BOARD MEETING ATTENDANCE FOR 2000–2001**

Board Members	Meetings Held	Meetings Attended
John Whitehouse, Chair	12*	10
Jeff Wright	12*	12
John Asquith	12*	12
Helen Cameron	12*	11
Dr Kerry Chant	12*	10
Patricia Gilchrist	12*	11
John Klem	12*	11
Kenneth Wheelwright	12*	12

**Note:** \*11 Monthly meetings  
+ 1 Special meeting held on 22 June 2001

### AUDIT COMMITTEE

The SCA Audit Committee for the 2000–2001 year was comprised of four members:

Helen Cameron, Chair  
John Whitehouse, Member  
Kenneth Wheelwright, Member  
Jeff Wright, Chief Executive (ex-officio).

Representatives from the Audit Office, Internal Auditor and the SCA attend the meetings of the Audit Committee.

The Audit Committee has adopted a charter, which outlines the roles, membership, meeting procedures and responsibilities of the committee.

#### Audit Committee Responsibilities

The main responsibilities of the Audit Committee are to:

- ensure that the audit process (both external and internal) is effective, that external reporting and corporate governance responsibilities are addressed, and that internal control and risk management structures are appropriate
- consider carefully issues raised by the external and internal auditors, and
- ensure that the SCA's accounting policies and principles are in accordance with relevant legislation, the stated financial reporting framework, and that the Board is informed of any significant issues raised by the Auditors, management or the committee members.

The Audit Committee has a further role of ensuring that appropriate authorisations are in place to enable the functions of the SCA to be carried out in a structured and accountable manner.

Other issues to be considered by the Audit Committee are the adequacy of the SCA's insurances to cover its risk and liability profile, and the adequacy of contingency plans in the event of disruption to the SCA's operations.

The Audit Committee meets every three months.

**TABLE 2: SCA AUDIT COMMITTEE ATTENDANCE FOR 2000–2001**

Board Members	Meetings Held	Meetings Attended
Helen Cameron, Chair	6	6
John Whitehouse	6	5
Kenneth Wheelwright	6	5
Jeff Wright (ex officio)	6	6

### WORKING GROUPS

Working Groups have been established by the Board to help Board decision making in regard to the following issues:

- Statement of Financial Framework, including business planning and corporate governance
- Annual Report
- Warragamba Visitors Centre and Recreation Area
- Water Quality Monitoring Report
- Regional Plan
- Risk Management Plan
- Bulk Water Supply Agreement
- aerial photography, and
- Environment Plan and Report and energy management.

### BOARD PROTOCOLS

The Board has developed and implemented a set of protocols that require Board members to operate through Board meetings to undertake the functions of the Board.

The Board protocols address the following:

- independent professional advice
- access to staff and inspection of facilities
- media contact
- speeches, papers or inspections by Board members
- correspondence to the Board Chair, members or working groups, and
- reimbursement of reasonable expenses in accordance with determinations made by the Minister.

The Board protocols were approved on 23 April 1999 and amended on 18 August, 12 November 1999 and 11 May 2001.

## COMPOSITION OF THE SCA cont'

### SENIOR OFFICERS AND THEIR QUALIFICATIONS

#### Chief Executive

During the reporting year Jeff Wright was CEO and Deputy Chair of the SCA. His profile and qualifications are reported on page seven of this Annual Report in "Introducing the Board".

#### Catchment Protection

Paul Shanahan, General Manager, Catchment Protection is a chartered chemical engineer with over 25 years experience in the water supply and pollution control fields. Paul has managed significant pollution control and environmental remediation projects both in Australia and overseas.

#### Bulk Water

Ian Tanner, General Manager, Bulk Water Supply has a B.Sc. (Eng.) in Civil Engineering. Ian has over six years experience in construction project management, seven years investigation and design experience in the water industry, six years operations and maintenance management experience in the waste water industry and eight years experience in the bulk water supply business.

#### Strategy and Policy

Richard Warner, General Manager, Strategy and Policy has a B.A., M.Comm. Richard has a long association with the water industry. Richard has specialised in major change processes, in particular the reforms to water pricing arrangements, and is a member of the Economic Society of Australia.

#### Business Services

Chris King, General Manager, Business Services has tertiary qualifications in commerce and has over 30 years experience in the water industry. In addition to occupying roles providing executive and ministerial support, Chris has managed a diverse range of functions including customer service, communications, human resources, property management and information technology. Chris is an active member of the Greater Western Sydney Regional Chamber of Commerce and Industry, Western Sydney Business Connection, Western Sydney Ambassadors Program, and Penrith Chamber of Commerce.

#### Senior Legal Counsel

Ken Elliott, Senior Legal Counsel has a Bachelor of Laws and a Bachelor of Arts. Ken has been a Solicitor of the Supreme Court of NSW since 1980. Ken holds a practising certificate issued by the Law Society of NSW. Ken has practised as a solicitor with the Public Solicitors Office for seven years and the Crown Solicitors Office for two years. He has over 10 years experience as a corporate lawyer. Ken has played a vital role in drafting of Orders, Proclamations and Executive Council Minutes as well as a suite of catchment management regulations for the SCA.

#### Dam Safety

Ian Landon-Jones, Manager, Dam Safety has a B.E. (Civil), M.Eng.Sc. Ian has over 25 years experience within the water industry particularly in dam safety. Ian has managed numerous projects involving dam surveillance, risk assessment, investigation and design of dams and mine subsidence impact reviews. Ian represents the SCA on a number of national committees, including NSW Dams Safety and Australian National Committee on Large Dams.

#### Finance and Procurement

Rhonda Wheatley, Manager of Finance and Procurement, has a B.Bus. (Accounting/Law), ASA, DipPubSectMngmt. She has a broad range of experience in the areas of finance, contract management, administration, information technology, human resources, accommodation and services within the private and public sectors. Rhonda has specialised in the effective and efficient use of integrated computer systems. Rhonda is an active member of CPA Australia's Public Sector Committee and a Fellow of the Australian Institute of Company Directors.

#### Executive Support

Keith Sclater, Executive Officer to Chief Executive and Board has a B.Sc. and Post Graduate Diploma in Management. Keith has over 16 years experience in land and catchment management. Keith coordinates the support from the SCA for the Minister and for the Board.



# About the Sydney Catchment Authority

## SCA CHARTER AND LEGISLATIVE FRAMEWORK

The establishment of the Sydney Catchment Authority (SCA) by the New South Wales Parliament was one of the outcomes of the Sydney Water Inquiry resulting from the detection of the parasites *Cryptosporidium* and *Giardia* in Sydney's drinking water supplies between late July and September 1998.

Among the issues considered by the Inquiry was the future management of the catchment areas from which Sydney's drinking water is sourced. The Inquiry report to parliament recommended that immediate action must be taken to establish appropriate management and regulatory structures to ensure that the integrity of catchment areas was not further compromised.

The SCA was created under section 6 of the Sydney Water Catchment Management Act 1998 (the SWCM Act) in January 1999 and commenced full operations on 2 July 1999. The activities of the SCA are authorised principally by the SWCM Act and the SCA's Operating Licence.

### ROLES, FUNCTIONS AND OBJECTIVES OF THE SCA

The SWCM Act is the legislation that defines the roles, functions and objectives of the SCA.

The role of the SCA is to:

- (a) manage and protect the catchment areas and catchment infrastructure works
- (b) be a supplier of water from its catchment infrastructure works, and
- (c) regulate certain land management and other activities within or affecting both the inner catchment and the outer catchment areas.

The SWCM Act also sets out the principal objectives of the SCA as being:

- (a) to ensure that catchment areas and catchment infrastructure works are managed and protected so as to protect water quality, protect public health and safety, and protect the environment
- (b) to ensure that water supplied by the SCA complies with appropriate standards of quality
- (c) to conduct its activities in compliance with the principles of ecologically sustainable development, and
- (d) to manage the SCA's catchment infrastructure works efficiently and economically and in accordance with sound commercial principles.

The SCA's main functions are to:

- manage and protect the catchment areas, and the dams, storages and pipelines
- supply bulk water to Sydney Water, other water supply authorities and direct customers
- protect and enhance water quality
- carry out research on catchments generally and the health of its own catchments in particular, and
- help educate the community about water management and catchment protection.

### OPERATING LICENCE

The Operating Licence is granted to the SCA by the Governor under section 25 of the SWCM Act. The Operating Licence requires the SCA to acknowledge its principal objectives and to enable and require the SCA to undertake its statutory roles, objectives and functions.

An initial Operating Licence was granted by the Governor on 2 July 1999. This licence was renewed on 22 December 1999. It was subsequently amended and took effect from 19 April 2000.

A mid-term review of the Operating Licence is required to be undertaken on, or about, 1 January 2002 to determine if the licence is fulfilling its objectives. An end-of-term licence review is to be undertaken on, or about, 1 January 2004.

The SCA's performance against the terms of its Operating Licence is subject to audit by a Licence Auditor appointed by the Independent Pricing and Regulatory Tribunal.

### GRANT OF WATER MANAGEMENT LICENCE

The SWCM Act contemplates that the SCA will seek and be granted a water management licence under Part 9 of the Water Act 1912.

Negotiations between representatives of the Department of Land and Water Conservation (DLWC) and the SCA culminated in the SCA being granted a water management licence effective from 23 April 2001.

The purpose of the Water Management Licence is to enable the SCA to abstract and use water from identified water sources and water management works. The Water Management Licence also specifies the amount of water that must be made available for environmental flows.

The SCA is required to pay a licence fee in relation to the water that it extracts and to advise the DLWC prior to undertaking any modifications to its water management works.

## SCA CHARTER AND LEGISLATIVE FRAMEWORK cont'

### MEMORANDA OF UNDERSTANDING

Section 36 of the SWCM Act requires the SCA to enter into Memoranda of Understanding (MoU) with certain regulatory agencies being the Director-General of New South Wales Health, the Water Administration Ministerial Corporation, and the Environment Protection Authority, (EPA). The MoU that have been entered into between the SCA and the regulatory agencies have a number of common objectives and features including:

- establishing cooperative relationships between the parties
- developing consultative processes to consider operational, strategic and public health issues
- the exchange of data and information, and
- dispute resolution.

#### Memorandum of Understanding with NSW Health

The MoU with the NSW Health calls for the establishment of a Strategic Liaison Group (SLG) and a Joint Operational Group (JOG) between the parties.

A Strategic Liaison Group (SLG) between the Sydney Catchment Authority, NSW Health and Sydney Water Corporation met four times during the year. The Joint Operational Group (JOG) met six times during the year.

Issues discussed by the SLG included a review of the Pathogen (*Cryptosporidium* and *Giardia*) Monitoring Program, the review of the MoU, the Regional Plan, the Pollution Source Risk Management Plan and continuing updates to the recommendations from the Sydney Water Inquiry.

Issues discussed by the JOG included the SCA's Annual Water Quality Monitoring Report, the Bulk Raw Water Quality Management Plan and a pesticides survey.

#### Memorandum of Understanding with Environment Protection Authority

The MoU with the EPA calls for the establishment of a Strategic Liaison Group (SLG). The SLG between the Sydney Catchment Authority and EPA met four times during the year.

Issues discussed by the SLG included a review of the MoU, the Pollution Source Risk Management Plan, the Accelerated Sewerage Program, the SCA's Strategic Priorities, and the SCA's Waste Management Audit.

#### Memorandum of Understanding with Water Administration Ministerial Corporation

The MoU with the Water Administration Ministerial Corporation (DLWC) calls for the establishment of a Strategic Liaison Group (SLG). The SLG between the Sydney Catchment Authority and the Department of Land and Water Conservation met four times during the year.

Issues discussed by the SLG included the Hawkesbury/Nepean River Management Forum and Expert Panel, the Water Management Licence now granted to the SCA, the Catchment Protection Scheme, the SCA's Integrated Water Monitoring Framework and the review of the MoU.

### STATEMENT OF FINANCIAL FRAMEWORK

Section 34 of the SWCM Act requires the Board of the SCA to prepare a Statement of Financial Framework for adoption by the Minister and the Treasurer.

The Statement of Financial Framework is required to include, but is not limited to:

- a statement of financial purpose, and
- provisions for or with respect to the payment by the SCA of dividends, tax equivalents and guarantee fees.

The Board prepared a Statement of Financial Framework supported by the SCA's Business Plan. The SCA, the Treasurer and the Minister duly executed the Statement.

### IMPLEMENTATION OF PRICE DETERMINATION

Under Section 18 (4) of the Independent Pricing and Regulatory Tribunal (IPART) Act 1992, a Government agency, which is the subject of a determination or recommendation of the Tribunal, is required to include in its Annual Report:

- particulars of how any such determination has been implemented, and
- a statement of whether any such recommendation has been implemented and, if not, the reason why it has not been implemented.

By Order published in the Government Gazette on 11 February 2000 the following services supplied by the SCA were declared to be government monopoly services for the purposes of the IPART Act:

- water supply services, and
- ancillary and miscellaneous services for which no alternative supply exists and which relate to the supply of those water supply services.

The Tribunal was requested, pursuant to section 12(1)(a) of the Independent Pricing and Regulatory Tribunal Act 1992, to conduct an investigation and make a report on the determination of pricing for the services supplied by the SCA to Sydney Water Corporation and to any other person supplied water by the SCA.

In September 2000 the Tribunal released a Medium-Term Price Path Determination for the SCA's services. The Determination covers the period from 1 October 2000 to 30 June 2005.

The SCA has set prices for its water and related services since 1 October 2000 in accordance with the maximum prices determined by the Tribunal. These prices are set out in the Schedule of Charges for Regulated Water Services 2000–2001 (see Appendix 5).



# About the Sydney Catchment Authority

## SCA CHARTER AND LEGISLATIVE FRAMEWORK cont'

### THE SCA'S REGULATORY ROLE

One of the findings of the Sydney Water Inquiry was that the regulatory framework for managing drinking water catchments was complex and fragmented.

The SCA now has the following regulatory tools to manage activities in the catchments that are likely to impact on water quality.

1. In Special Areas and controlled areas, which are tracts of land closest to the SCA's water storages, access, activities and conduct is regulated by means of the Sydney Water Catchment Management (General) Regulation 2000.
2. With the assistance of the EPA, the SCA developed the Sydney Water Catchment Management (Environment Protection) Regulation 2001 (the environment protection regulation). This regulation was made on 25 January 2001 and commenced on 1 March 2001. The environment protection regulation enables the SCA to exercise certain regulatory functions under the Protection of the Environment Operations Act 1997 (POEO Act) with regard to non-scheduled premises and activities.

The functions the SCA is able to exercise under the POEO Act are to:

- (i) issue environment protection notices,
- (ii) take proceedings under the POEO Act in relation to water pollution offences by means of prosecution or the issue of penalty infringement notices
- (iii) take proceedings for the recovery of costs to rectify environmental damage
- (iv) provide authorised officers of the SCA with enhanced powers to collect evidence, and
- (v) exercise the same powers as the EPA in relation to littering.

The jurisdiction of the environment protection regulation extends to:

- non-scheduled activities being carried out, or proposed to be carried out, within a catchment area, and
- non-scheduled activities being carried out, or proposed to be carried out, outside a catchment area where the activities are of such a nature that affect a catchment or may affect a catchment area.

### LAND AND DEVELOPMENT CONTROLS

#### State Environmental Planning Policy No. 58 (SEPP 58)

The SCA has a key role in overseeing development in the catchments. SEPP 58 – Protecting Sydney's Water Supply, which took effect on 1 February 1999, requires new developments in the hydrological catchments to be assessed for their potential impacts on water quality. It provides a notification and concurrence role for the SCA for certain high risk developments.

In relation to any development or activity proposed on land to which the policy applies, developers, councils and government agencies must consider whether:

- the development or activity will have a neutral or beneficial effect on the water quality of rivers, streams or groundwater in the hydrological catchment, including during periods of wet weather
- the water quality management practices proposed to be carried out as part of the development or activity are sustainable over the long term, and
- the development or activity is compatible with relevant environmental objectives and water quality standards for the hydrological catchment.

### Draft Regional Plan – Sustaining the Catchments

The Department of Urban Affairs and Planning has recently developed a Draft Regional Plan (RP) – Sustaining the Catchments, which will provide the framework for many of the SCA's programs and activities in the catchments. The Draft RP contains regulatory controls in relation to new developments and activities as well as strategies aimed at improving the planning, management and knowledge base for water quality protection in the catchments. The final RP will replace SEPP 58 – Protecting Sydney's Water Supply.

#### Direction under section 117 of the Environmental Planning & Assessment Act 1979

The SCA is able to influence the making and amendment of local environment plans so as to ensure that they contain provisions to protect catchment areas and water quality.

## SCA CHARTER AND LEGISLATIVE FRAMEWORK cont'

### CURRENT LEGAL MATTERS

#### Native Title Claim

On Tuesday 7 September 2000 a Notice was published in the Sydney Morning Herald advising that a Native Title Claim had been made by the Gundungarra over an area of land within the SCA's area of operations that included parts of the Special Areas.

The SCA's land in Special Areas and on which Warragamba Dam is situated, is held largely in freehold title. The SCA occupies some parcels of land under permissive occupancy licences from the Crown.

The SCA jointly manages Special Area lands with National Parks and Wildlife Service (NPWS) in accordance with the Special Areas Strategic Plan of Management. The potential impact of the Native Title Claim will have to be assessed against the SCA's objectives in relation to land management and protecting water quality.

On 1 February 2001 the Chief Executive of the SCA signed a Notice of Intention for the SCA to become a party to the Native Title Determination. The Notice was filed in the Federal Court on 6 February 2001.

The Native Title Tribunal advised that initial mediation sessions are likely to be held towards the end of 2001 or early 2002.

#### Abigroup Contractors Pty Limited – Claim against Sydney Catchment Authority

On 28 March 2001 Abigroup Contractors Pty Limited wrote to the Managing Director of Sydney Water Corporation enclosing a claim for compensation in the amount of \$13.7 million.

The SCA has the carriage of the Abigroup claim for reason that the Abigroup Contract is one that is referred to in the Governor's Order dated 30 June 1999 that transferred assets, rights and liabilities from Sydney Water Corporation to the SCA.

### LEGAL CHANGES DURING THE YEAR

#### The New South Wales Water Management

**Act 2000** was passed by the New South Wales Parliament in December 2000. The Act sets out general water management principles and specific principles relating to water sharing, water use, drainage management, flood plain management, controlled activities and aquifer interference activities. The new Act repeals 25 existing acts. There are specific provisions in the Act that relate to the issuing of a water management licence to government agencies such as the SCA.

#### The Independent Pricing and Regulatory

**Tribunal Act** was amended to include Part 4B. The amendments referred to in Part 4B confer on the Independent Pricing and Regulatory Tribunal the function of Licence Regulator with responsibilities that include the preparation of the operational audit of the SCA against the provisions contained within its Operating Licence.

#### Regulations

The SCA made two regulations. These regulations were the Sydney Water Catchment Management (Environment Protection) Regulation 2001. This regulation enabled the SCA to exercise certain powers under the Protection of the Environment Operations Act 1997 for the protection of water quality and catchment areas. The regulation was made in accordance with the provisions of the Subordinate Legislation Act 1989.

Protection of the Environment Operations (Penalty Notices) Amendment (Sydney Catchment Authority) Regulation 2000. This regulation enables the SCA to issue penalty infringement notices under the Protection of the Environment Operations Act 1997. This regulation is an amending regulation for which a regulatory impact statement is not required to be prepared by the Subordinate Legislation Act 1989.





# Summary Review of Operations

## HOW WE PERFORMED

This summary outlines the SCA's performance in developing strategies and outcomes against those prescribed in its Business Plan, and identifies tasks requiring future attention.

Further details are reported in the following Detailed Review of Operations, and in the separate Achievements Report 2001.

### BULK WATER SUPPLY

#### Strategies

Deliver quality bulk water to SCA customers

#### Outcomes

- Draft bulk water supply agreements with Shoalhaven City Council and Wingecarribee Shire Council developed
- Supply of quality bulk raw water met 100 per cent of customer quantity requirements
- Bulk water supplied to SWC achieved 96 per cent conformance with specified quality standards and 99.7 per cent conformance to Australian Drinking Water Guidelines in relation to pesticides and heavy metals
- No water quality complaints from customers
- Majority of minor customers signed up
- Bulk Raw Water Quality Management Plan developed

#### Future tasks

- Finalise Bulk Water Supply Agreements with Shoalhaven City Council and Wingecarribee Shire Council
- Undertake limnological study of Lake Burragorang to better understand contaminant movement and provide early warning
- Finalise Network Delivery Plan
- Finalise Drought Management Response Plan
- Implement actions in Bulk Raw Water Quality Management Plan

### ASSET AND INFRASTRUCTURE MANAGEMENT

#### Strategies

Maintain and improve infrastructure

#### Outcomes

- SCA Asset Creation Manual developed
- As part of SCA's Asset Management Strategy, System Management Plans developed for all seven water supply systems
- Standard Operating Procedures (SOPs) being developed and tested for all assets
- Achieved full compliance with NSW Dams Safety Committee requirements
- Warragamba Auxiliary Spillway Project progressing on schedule
- A 13km section of the Warragamba pipeline taken out of service for eight weeks for major periodic maintenance of pipeline components
- Protection of dams and storages against the impact of underground coal mining

#### Future tasks

- Review SCA Asset Management Strategy
- Continue developing SOPs for all assets and include safety, environment and heritage issues
- Complete Operations and Maintenance manuals for high and significant hazard dams
- Spillway project due for completion in 2002
- Continue reviewing and monitoring the impacts of current and future mining beneath water storages

## HOW WE PERFORMED cont'

### CATCHMENT MANAGEMENT AND PROTECTION

Strategies	Outcomes	Future tasks
Instigate responsible, best practice land management	<ul style="list-style-type: none"> <li>• Adoption of the Special Areas Strategic Plan of Management (SASPoM)</li> <li>• Adoption and implementation of the Wingecarribee Swamp and Special Area Plan of Management</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate the development of best management practice guidelines</li> <li>• Continue implementation of plans of management</li> <li>• Develop demonstration sites for best practice</li> </ul>
Manage existing and future discharging development	<ul style="list-style-type: none"> <li>• Developing strategic land and water capability assessment methodology</li> <li>• Implemented risk management methodology</li> <li>• Implemented SEPP 58 and supported development of draft Regional Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Initiate staged introduction of strategic land and water capability assessments</li> <li>• Contribute to the assessment and regulation of development that impacts water quality</li> </ul>
Facilitate the improvement of stormwater quality	<ul style="list-style-type: none"> <li>• Designed and implemented catchment council stormwater management projects through the Catchment Enhancement and Protection Program</li> <li>• Sealing of dirt roads that cross catchment streams</li> </ul>	<ul style="list-style-type: none"> <li>• Assist councils to address the impacts of stormwater systems</li> <li>• Continue program of road sealing to protect streams</li> </ul>
Reduce sewage effluent impacts	<ul style="list-style-type: none"> <li>• Developed a strategy to fast track provision of sewerage to areas within the catchments</li> <li>• Sewer relining program piloted in Goulburn</li> </ul>	<ul style="list-style-type: none"> <li>• Contribute \$20 million over 5 years to DLWC's Country Towns Water Supply and Sewerage Program</li> <li>• Make sewer relining machine available to councils across the catchment</li> </ul>

### PROTECTING AND ENHANCING WATER QUALITY

Strategies	Outcomes	Future tasks
Improve water quality monitoring	<ul style="list-style-type: none"> <li>• Water quality monitoring program developed and implemented</li> <li>• Modified pathogen monitoring program implemented</li> <li>• Water quality monitoring contract put on open tender</li> <li>• Monitoring for pesticides and heavy metals (as per section 4 of Operating Licence) undertaken</li> <li>• Annual Water Quality Monitoring Report prepared and launched on the Internet</li> </ul>	<ul style="list-style-type: none"> <li>• Finalise water quality monitoring program for 2001–2004</li> <li>• Develop water quality management strategy for Prospect Reservoir.</li> <li>• Finalise and implement new water quality monitoring contract</li> <li>• Annual Water Quality Monitoring report to be published</li> </ul>
Identify and manage pollution sources in the catchments	<ul style="list-style-type: none"> <li>• Pollution Source Risk Management Plan developed, exhibited for public comment, and adopted</li> <li>• Working with other agencies such as the EPA, DMR and DLWC to reduce pollution</li> </ul>	<ul style="list-style-type: none"> <li>• Implement Pollution Source Risk Management Plan to guide catchment protection activities</li> </ul>



# Summary Review of Operations

## HOW WE PERFORMED cont'

### RESEARCHING THE CATCHMENTS

#### Strategies

Develop structured, prioritised research program

#### Outcomes

- Reviewed SCA research requirements, considering legislation, recommendations from experts, expectations of stakeholders and SCA staff
- Systematic identification of current knowledge and information gaps

#### Future tasks

- Implementation of research program targeting sources and effects of water contaminants and water quality impacting activities

Initiate prerequisite partner research projects

- Commenced contaminant export rate project for contamination arising from diffuse pollution sources
- Developed pollution source and tracking tools
- Initiated catchment and reservoir conceptual modeling program

- Continue key research projects with partners, including universities and cooperative research centres

### COMMUNITY EDUCATION AND INFORMATION

#### Strategies

Develop education programs for the community, customers and stakeholders

#### Outcomes

- Commenced community awareness research to help develop and measure education and awareness programs

#### Future tasks

- Review three-year Education Policy and Framework in preparation for the next phase – 2002–2005

Provide education on the importance of managing and protecting the catchments

- Delivered education outreach and sponsorship programs including the 'Crystal Clear' performance partnership with UWS
- Expanded student resource service and Warragamba Dam Visitors Centre education facilities

- Launch Mobile Education Unit
- Significantly expand SCA's commitment to Streamwatch
- Finalise redevelopment of the SCA Website to improve information access
- Develop the Warragamba Dam Visitors Centre Interpretive Strategy

### COMMUNITY CONSULTATION AND FEEDBACK

#### Strategies

Improve stakeholder involvement in catchment management and protection

#### Outcomes

- Established four consultative committees including the Local Government Reference Panel, two Regional Consultative Committees representing the northern and southern parts of the catchment, and an Expert Reference Panel

#### Future tasks

- Provide additional opportunity for public comment through the consultative committees, exhibition of plans and programs – and via the redeveloped SCA Website

Develop effective systems for managing the handling and tracking of complaints

- Developed Complaint Handling Policy and Procedure, implemented staff training, and distributed a publication informing SCA stakeholders how to make a complaint

- Implement new complaints handling software to significantly improve the tracking of complaints and outcomes

## HOW WE PERFORMED cont'

### OUR PEOPLE

Strategies	Outcomes	Future tasks
Provide the organisational structure, resources and staff development to best achieve SCA corporate objectives	<ul style="list-style-type: none"> <li>• Reorganised structure to better align technical and financial services with SCA objectives</li> <li>• Conducted staff training including EEO and grievance handling, complaints handling, OHS&amp;R, environmental education, incident management training, as well as specific job-related and personal development training</li> </ul>	<ul style="list-style-type: none"> <li>• Finalise the SCA's new Award and develop processes to link individual reward to organisational goals</li> </ul>
Recognise diversity in policy and planning processes	<ul style="list-style-type: none"> <li>• Participated in a cadet program for Aboriginal and Torres Strait Islander people, and supported the NSW Government's Action Plan for Women</li> </ul>	<ul style="list-style-type: none"> <li>• Refine the SCA's Disability Action Plan in line with the Government's Disability Policy Framework and develop Cross Cultural Awareness training for staff</li> </ul>
Develop and maintain effective, safe systems at work	<ul style="list-style-type: none"> <li>• Developed a program for regular planned inspections of all SCA workplaces</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that SCA work practices comply with the new Occupational Health and Safety Regulation 2001, and exercise due diligence with SCA contractors</li> </ul>

### MANAGING OUR BUSINESS

Strategies	Outcomes	Future tasks
Implement sound business management through an integrated business planning and financial management system	<ul style="list-style-type: none"> <li>• Developed a business planning framework to evaluate and quantify objectives, develop strategies and resources, and measure results</li> </ul>	<ul style="list-style-type: none"> <li>• Develop business processes to improve organisational efficiency through the implementation of an Integrated Management System (IMS)</li> </ul>
Develop sustainable energy management and environmental practices	<ul style="list-style-type: none"> <li>• Publicly exhibited the draft five-year Environment Plan and implemented strategies to reduce energy consumption as outlined in the Energy Management Policy and Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Finalise and adopt the Energy Management Plan for 2001–2006 to make improvements in energy efficiency</li> </ul>
Manage risk and preparedness for incidents	<ul style="list-style-type: none"> <li>• Developed a Corporate Risk Management Plan and incorporated actions into work plans</li> <li>• Conducted incident management awareness sessions for all staff and produced the Corporate Incident Management Manual to reduce SCA vulnerability to hazards</li> <li>• Developed emergency response plan to deal with incidents</li> <li>• Inter-agency scenarios successfully completed</li> </ul>	<ul style="list-style-type: none"> <li>• Develop incident response plans specific to SCA divisions</li> <li>• Conduct further training and exercises</li> </ul>



# Detailed Review of Operations

## 1. BULK WATER SUPPLY

The Act states that the SCA has the following specific functions:

- to supply water to the Sydney Water Corporation
- to supply water to water supply authorities, prescribed local councils or prescribed county councils, and
- to supply water to other persons and bodies, but under terms and conditions that prevent the person or body concerned from supplying the water for consumption by others within the State, unless the person or body is authorised to do so by or under an Act.

### OVERVIEW

The SCA's primary function is to provide quality bulk water to its customers through effective asset, resource and risk management. By adopting recognised industry best practices, the SCA integrates planning and operations to ensure asset capability and availability, and product quality.

Highlights of the SCA's activities to improve the quality of water supply included improvements in destratification management, investigations into the development of real time warning systems, and the development of a comprehensive Bulk Raw Water Quality Management Plan.

### 1.1 QUANTITY OF WATER SUPPLIED TO SCA CUSTOMERS

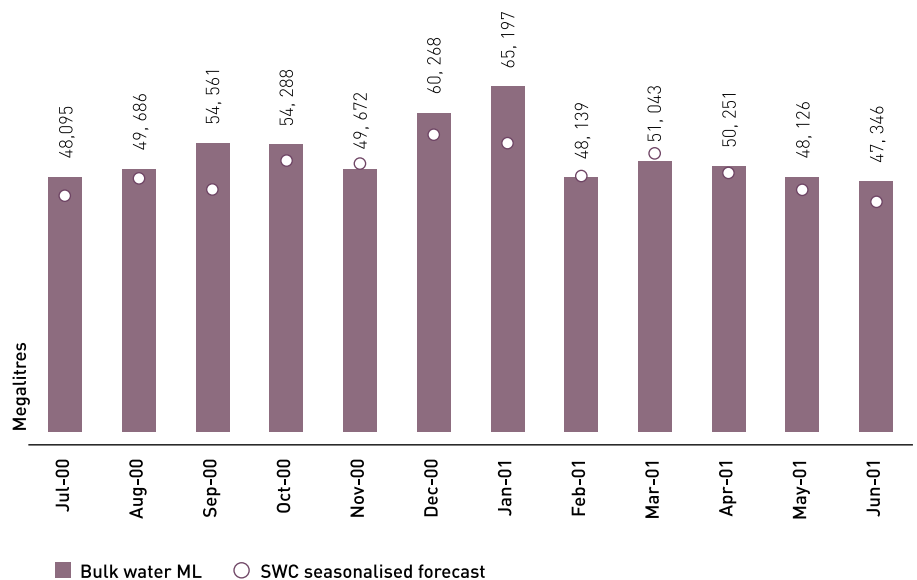
The SCA supplied a total of 630,575 Megalitres (ML) of water from various storages to Sydney Water Corporation (SWC) water filtration plants and privately owned plants that are contracted to SWC, Shoalhaven City Council, Wingecarribee Shire Council, and small customers drawing water directly from storages, pipelines and the Upper Canal. Of the total, 99.4 per cent was supplied to SWC. Table 3 shows the quantities supplied during the year.

**TABLE 3: WATER SUPPLIED TO SCA CUSTOMERS**

Customer	Bulk water supplied ML
Sydney Water Corporation (SWC)	626,672.0
Wingecarribee Shire Council	3,487.0
Shoalhaven City Council	79.0
National Parks & Wildlife Service (NPWS) – Fitzroy Falls Visitor Centre	0.4
Direct Users – Upper Canal	190.0
Direct Users – Warragamba Pipeline	65.0
Direct Users – Storages	55.0
Cataract Scout Park	27.0
<b>Total</b>	<b>630,575.4</b>

Figure 1 below shows the quantities supplied to SWC during each cost period

**FIGURE 1: TOTAL BULK WATER SUPPLIED TO SWC**



## 1. BULK WATER SUPPLY cont'

### 1.2 RAW WATER QUALITY

The SCA supplied unfiltered and raw water in bulk to water filtration plants for treatment. A small quantity of unfiltered water was supplied directly to a number of customers along the Upper Canal and the Warragamba Pipelines. Bulk water supplied to Prospect Water Filtration Plant was disinfected by Sydney Water Corporation by dosing chlorine in the Upper Canal at Broughtons Pass and in the Warragamba Pipelines at Middle Creek near Warragamba.

Water supplied to each SWC water filtration plant had to meet water quality parameters specified in the Bulk Water Supply Agreement. Table 12 and Figures 9–18 in Appendix 2 show the quality of water supplied to each water filtration plant. In the case of SWC plants, conformance to the parameters specified in the Bulk Water Supply Agreement is also shown. Bulk water supplied to SWC met 96 per cent conformance with quality standards specified for each plant in the Bulk Water Supply Agreement and 99.7 per cent conformance to Australian Drinking Water Guidelines in relation to pesticides and heavy metals.

#### Managing Blue–Green Algae

The SCA continued to monitor water quality in the reservoirs that provide Sydney's water supply. Blue–green algae concentrations remained elevated in Fitzroy Falls, Wingecarribee and Prospect Reservoirs for extended periods during the warmer seasons. The dominant bacteria in the blooms were tiny, non-toxic species.

SCA staff worked closely with Shoalhaven City Council and Wingecarribee Shire Council to manage the blooms in the Shoalhaven system storages, communicating water quality data and holding regular meetings with the two councils. Both Shoalhaven City Council's Kangaroo Valley Water Filtration Plant and Wingecarribee Shire Council's Water Filtration Plant can handle algae cells and microcystin (toxins).

The SCA worked closely with water quality experts from the DLWC and Australian Water Technologies (AWT), and other stakeholders to draft interim recreational guidelines for levels of blue–green algae cells and biovolume. The State Algal Coordinating Committee (SACC) later adopted these levels for application throughout the State.

### Impact of Peat on Wingecarribee Reservoir

The collapse of the Wingecarribee Swamp has caused a reduction in the available storage in Wingecarribee Reservoir of more than 9000 Megalitres. No water quality problems arose from the presence of peat in the Reservoir. The stability of the peat barrier was regularly checked and no significant movement of peat was noted.

### 1.3 WATER QUALITY MANAGEMENT INITIATIVES

Further improvements to the effectiveness and efficiency of in-storage water quality management techniques were instigated during the year as outlined below.

#### Destratification Management

Water temperature profile in storages is an indicator of stratification and can be used as an indicator of water quality. The SCA improved its ability to manage destratification by installing an additional eight thermistor chains (temperature probes in the water column) in its storages. The data from these probes, which was fed to the 'RESMAN' storage management software, was very useful for staff in their day-to-day management of bulk water supply – signalling when to activate destratifiers to keep the lakes mixed and well oxygenated – resulting in optimum water quality to SCA customers.

#### Oxygen Probe Trial

High oxygen levels in stored water indicate lower levels of dissolved metals. The SCA undertook a successful trial of in-storage dissolved oxygen probes at Nepean Dam and prepared a proposal to install similar probes in Warragamba Dam. This information will enable the SCA to draw water from layers where oxygen is highest, thus improving the quality of water supplied to SCA customers.

### Real–Time Warning System

The SCA entered into an agreement with the Centre for Water Research, the University of Western Australia and the University of Western Sydney to undertake investigations into the development of a real time warning system for Lake Burragarang and Prospect Reservoir. When fully operational the system should enable the SCA to make timely changes to operations to optimise the quality of water delivered to customers.

### Bulk Raw Water Quality Management Plan

The Bulk Raw Water Quality Management Plan, which is an innovative and key management tool for the SCA, was developed through consultation with key external stakeholders such as Sydney Water and NSW Health.

The plan puts into perspective activities the SCA is undertaking to maintain and enhance the quality of raw water it supplies. In line with the Australian Drinking Water Guidelines, the SCA has adopted a multi-barrier risk management approach in managing water quality.

The plan clearly demonstrates the SCA's initiatives to achieve best practice water quality management, across all areas of its responsibilities. It achieves this through a range of programs, actions and strategies for managing water quality in the catchment areas, storage dams and water supply and delivery networks. The plan also links to other aspects of water quality management including water quality monitoring programs, research and risk management programs, and protocols to deal with water quality incidents.



# Detailed Review of Operations

## 1. BULK WATER SUPPLY cont'

FIGURE 2: RAINFALL

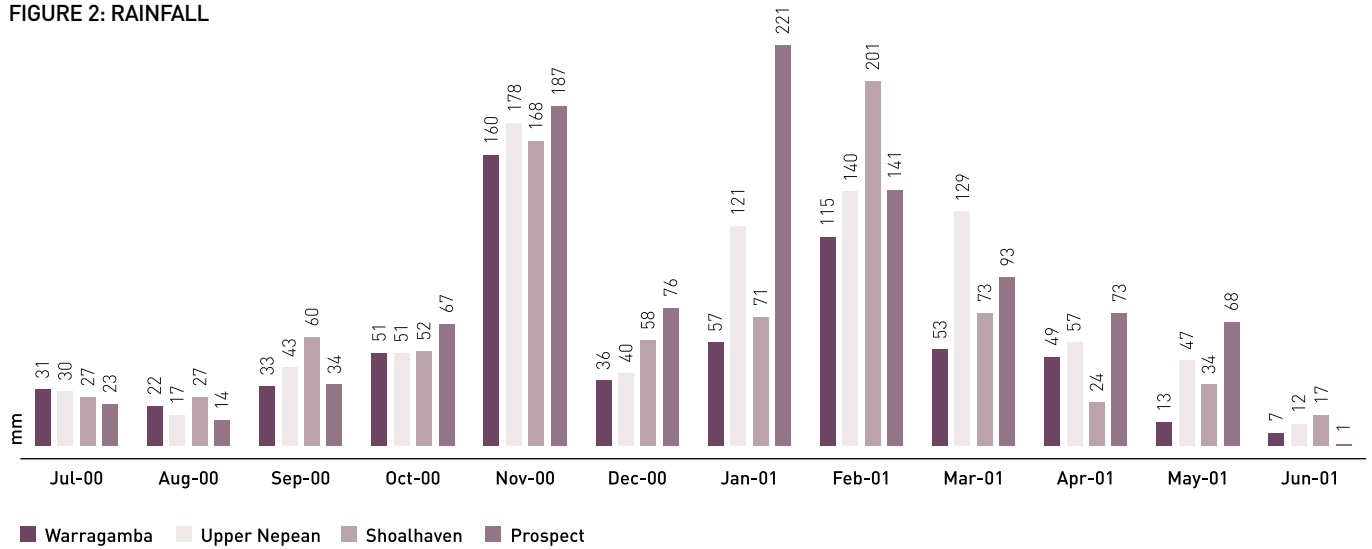
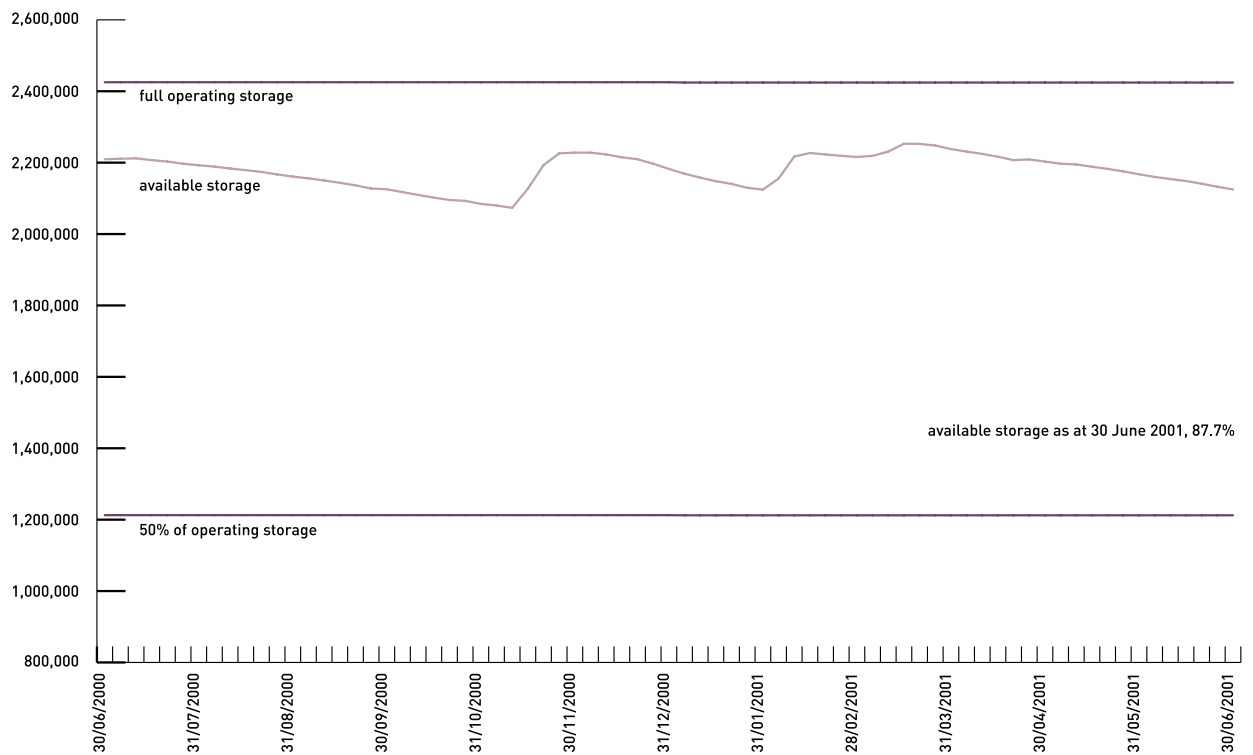


FIGURE 3: MOVEMENT IN AVAILABLE STORAGE





## 1. BULK WATER SUPPLY cont'

**TABLE 4: NET ANNUAL CHANGE IN STORAGES**

	Full operating storage (ML)	Storage level (m)	Available storage (ML)	Available storage (%)	Net annual change (m)	Net annual change (ML)
Cataract	94,300	-1.23	84,200	89.3	1.91	14,260
Cordeaux	93,640	-2.37	76,450	81.6	0.14	940
Avon	146,700	-4.25	104,820	71.5	-0.82	-7,640
Nepean	40,810	-1.95	34,710	85.1	-1.54	-4,790
Woronora	71,790	-2.71	62,210	86.7	-1.70	-5,890
Warragamba	1,886,000	-2.79	1,683,150	89.2	-1.11	-79,220
Prospect	8,870	-0.35	7,090	79.9	-0.37	-1,780
Wingecarribee	33,500	-1.30	25,750	76.9	-0.10	-610
Fitzroy Falls	10,000	-0.25	8,750	87.5	0.31	1,600
Tallowa	36,000	-0.05	35,610	98.9	-0.11	-390
Blue Mountains	2,790		2,490	89.2		-890
<b>Total</b>	<b>2,424,400</b>		<b>2,125,230</b>	<b>87.7</b>		<b>-84,410</b>

### 1.4 RAINFALL AND STORAGE BEHAVIOUR

Except for Prospect, the water supply catchments received less than the long-term median rainfall during the year. As a result there was a net negative change of 3.4 per cent in storage levels over the year. Only Blue Mountains and Tallowa Dams spilled for varying periods.

The table and figures above and at left show the rainfall received and the movement in storage levels.

### THE YEAR AHEAD

Continued implementation of actions in the Bulk Raw Water Quality Management Plan has placed the SCA in a good position to deliver on its obligations and commitments. The SCA will continue to strengthen already good relationships with customers, stakeholders and regulators to ensure safe supply of high quality bulk water.

Continued progress towards developing an integrated management system in line with the revised Australian Drinking Water Guidelines will ensure the maintenance of product quality, environmental, health and safety aspects of the SCA's operations are addressed in a continuous improvement framework.

Investigations and research into water quality and asset capability issues will continue as a major focus.

As part of its requirement to reach agreement with its customers on supply arrangements, the SCA will be seeking to finalise bulk water supply agreements with Wingecarribee Shire Council and Shoalhaven Water, the water supply subsidiary of Shoalhaven City Council.



# Detailed Review of Operations

## 2. ASSET AND INFRASTRUCTURE MANAGEMENT

The Act states that the SCA must 'manage and protect the catchment infrastructure works vested in or under the control of the SCA'.

### OVERVIEW

The SCA is responsible for managing an extensive asset base that is critical to delivering a reliable source of quality bulk water to its customers. In managing its assets, the SCA has four challenges:

- minimising the cost of acquiring physical assets
- minimising the costs of maintaining the assets
- ensuring the assets continue to perform satisfactorily, and
- meeting service delivery outcomes.

During the year, the SCA instigated strategies and programs designed to achieve these objectives, ranging from the development of System Management Plans (SMPs) to assist with integrated asset management, to comprehensive asset maintenance and capital works programs including the \$150 million Auxiliary Sillway Project at Warragamba Dam.

The SCA also made significant progress in managing its diverse range of cultural heritage items with the development of a draft Heritage and Conservation Register and Conservation Management Plans for a large number of significant heritage assets.

### 2.1 ASSET MANAGEMENT STRATEGY

The SCA's Asset Management Strategy developed in 2000 takes into account environmental impact reduction initiatives and heritage issues. Key areas of progress in the strategy during second year of operation have been:

#### System Management Plans

By January 2001, the SCA completed System Management Plans (SMPs) for all seven systems, namely Warragamba Pipeline, Upper Canal, Warragamba Dam, Prospect Dam, Shoalhaven System, Upper Nepean Dams and Blue Mountains Dams.

SMPs are essential to the effective operation of the SCA's assets. The SMPs demonstrate accountable management of the SCA's facility assets during acquisitions, operation, maintenance, renewal and eventual disposal. The SCA uses the SMPs to provide input into business planning and to help in budget preparation.

#### Standard Operating Procedures

The SCA progressed programs for completing Standard Operating Procedures (SOPs), a major component of the SCA's integrated management system. Identification and rationalising of SOPs was undertaken for all assets.

### 2.2 ASSET MAINTENANCE

#### Asset Maintenance Management Strategy

As part of its Asset Management Strategy, the SCA introduced best practices for asset maintenance management. A review of the criticality of individual assets, the provision of redundancy in the system, and a systematic analysis of the modes of failure was undertaken for the Blue Mountains Dams and their associated facilities. The Failure Modes and Effects Criticality Analysis (FMECA) process was used. Once this process is proven successful, the SCA will extend it to all bulk water supply systems.

Development of an Asset Maintenance Management (AMM) Strategy continued. The AMM Strategy sets out the principles, directions and strategic processes to facilitate maintenance management throughout the SCA in a systematic and effective way.

The SCA continued to develop its preventative maintenance and peak levelling programs. Major asset maintenance activities to ensure asset reliability were undertaken on the Warragamba Pipeline, Warragamba Dam Radial Gates, Cataract Tunnel and Upper Canal aqueducts. Mechanical and electrical maintenance services were outsourced to engineering contractor ABB.

#### Asset Maintenance Software

After a thorough evaluation, the SCA purchased the asset maintenance management software MAXIMO, which has the capacity to link to other SCA software. It will serve as one of the SCA's official facility asset registers and will be the driving force behind maintenance activities through the issue of:

- Preventive Maintenance Instructions (PMIs) – for carrying out the actual civil, mechanical or electrical maintenance activity, and
- Preventive Maintenance Operations (PMOs) – to provide operational instructions to accompany the maintenance work.

### 2.3 CAPITAL WORKS

Annual expenditure on the ten-year coordinated capital works program, which was approved by the SCA Board in 2000, was around \$5.5 million (excluding the Warragamba Dam auxiliary spillway).

## 2. ASSET AND INFRASTRUCTURE MANAGEMENT cont'

The program encompasses 54 projects at a total cost of \$243.3 million. It mostly involves renewals and upgrades of existing water supply infrastructure, focusing on dam safety, asset reliability, environmental and OHS&R improvements, and water quality enhancement projects.

Projects started under the scheme include the significant upgrade of the Upper Canal and Warragamba pipelines, as well as the \$1.6 million upgrade of the effluent disposal systems at Upper Nepean and Woronora dams, including installation of an Ecomax on-site effluent treatment system at Woronora. It is expected the treated effluent will be suitable to be used for grounds maintenance. Table 5 details the capital expenditure and projects for 2000–2001.

### Warragamba Dam Auxiliary Spillway Project

The Warragamba Dam Auxiliary Spillway Project remained by far the largest of the SCA's capital projects, with an overall estimated cost of \$150 million. The new spillway will protect the dam in an extreme flood by allowing excess floodwaters to bypass the existing spillway. Considerable progress was made during the year on this project, the largest dam project currently under construction in Australia.

During the year, excavation from the spillway cuttings, excluding the final underwater excavation, was completed. Major advances were made on the concrete lining of the floor and walls of the spillway, as well as on the flip-bucket at the downstream end.

A new access bridge over the spillway was constructed. Work was completed on an elevated roadway down to the dam Valve House and work on the stabilizing anchors in the spillway dissipater floor and walls was completed.

The spillway project was carefully monitored throughout the year to ensure minimal environmental impact from construction activities.

Visitor access to Haviland Park, the picturesque picnic area immediately next to the Warragamba Dam, was restricted due to construction of the new spillway. Recognising the level of visitor interest in the project, the SCA undertook a number of initiatives to meet public demand for information. An attractive viewing platform was built at the end of Eighteenth Street in Warragamba township to provide visitors with a panoramic view of the construction works.

**TABLE 5: CAPITAL WORKS EXPENDITURE FOR 2000–2001**

Project	2000–2001 Expenditure (\$'000's)
Warragamba Dam – spillway upgrade	28,250
Warragamba Dam – upgrade of major outlet valves	29
Warragamba Dam – renewals, upgrades	2
Warragamba Pipeline – access platforms and ladders	40
Warragamba Pipeline – upgrade ancillary valves	98
Upper Nepean Dams – upgrade of effluent disposal systems	894
Upper Canal – refurbishments of aqueducts stage 2	772
Upper Canal – refurbishment of channel	188
Upper Canal – renewal/upgrade	4
Prospect Reservoir – upgrade of scours	35
Prospect Reservoir – upgrade spillway channel	31
Shoalhaven System – upgrade SCADA system	69
Tallowa Dam – multi level off-takes and mini-hydro	34
Bendeela Camping Ground – alternate water supply	28
Fitzroy Falls Picnic Grounds water supply	11
Land acquisition for catchment areas	576
Warragamba catchment – refurbishment of road bridges	47
Catchment areas – renewal/upgrades	38
Wingecarribee Swamp – restoration and rehabilitation	1
Bulkwater – modifications to dam outlets for environmental flows	54
Upgrade hydrographic and water quality monitoring network	145
Office accommodation at Penrith	1,010
General renewals and upgrades	41
Upgrade seismic monitoring network	90
Site office fit outs	55
Bulkwater – upgrade of access roads	49
Electrification of BBQs	4
Sewer relining equipment	334
Fire tankers	354
Working plant & equipment	43
<b>Total</b>	<b>33,326</b>

In line with the Minister's conditions for the project, the SCA developed a landscape plan for the restoration of the public recreational grounds and facilities impacted by the spillway project. The SCA extended the scope of this plan to include the entire recreation area along with plans for a contemporary visitors centre adjacent to the new spillway. The new visitors centre and redeveloped recreation facilities will provide a more interesting, informative and educational experience for visitors to the dam. The total Project is due for completion in early 2003.

### 2.4 DAM SAFETY

#### Surveillance and Monitoring

The SCA owns 21 structures classified as prescribed dams by the NSW Dams Safety Committee (DSC) under the Dams Safety Act 1978. Dam Surveillance Reports must be prepared at five-yearly intervals for submission to the DSC. During 2000–2001 the reports for Avon and Wingecarribee Dam and Kangaroo Pipeline Control Structure were completed and gained DSC approval. The SCA is preparing reports for Cataract and Cordeaux dams in accordance with the approved program. As a responsible owner of dams, the SCA continues to undertake regular surveillance and monitoring of all of its dams.

Several new Operation and Maintenance (O & M) manuals were prepared and all existing manuals were reviewed and updated. O & M manuals for all 10 'high' and seven 'significant hazard' dams have now been produced in accordance with guidelines from the Australian National Committee on Large Dams (ANCOLD) – the dam safety industry body. These manuals will be issued in early 2001–2002, following critical review.

The SCA developed six new Dam Safety Emergency Plans and updated all existing plans to reflect revised incident management processes, both within the SCA and for reporting to external emergency agencies. Following external review, these plans will be finalised and issued in early 2001–2002 to complete this major program of work in fully complying with DSC requirements.

The SCA's Seismic Monitoring Network was originally installed by Sydney Water Corporation in 1992. Following a detailed review of its operational reliability, the SCA upgraded the network using the latest technology to improve long-term reliability and efficiency, and reduce ongoing operational costs.



# Detailed Review of Operations

## 2. ASSET AND INFRASTRUCTURE MANAGEMENT cont'

The programmed annual and five-yearly comprehensive dam safety inspections found all storage dams to be maintained in satisfactory condition. The SCA is managing all its dams to a high standard to ensure compliance with the DSC and Operating Licence requirements.

The SCA continued its support of the DSC during the year by effective representation on the main committee and several of its sub-committees. Through its membership of ANCOLD, the SCA representative helped prepare revised national guidelines on risk assessment for dams.

### Mining

During the year, several mining applications were submitted and approved by the Department of Mineral Resources for coal mining within catchment areas, beneath the storage of Cataract Dam, Cataract Tunnel and adjacent to the upstream end of the Upper Canal. These applications were extensively reviewed and approval conditions were imposed to ensure all required preventative measures, monitoring programs, and management plans were put in place to ensure that SCA facilities were not adversely affected as a result of mine subsidence.

### 2.5 HERITAGE

During 2000–2001 the SCA undertook an ambitious program of conservation planning and restoration works through its Cultural Heritage Work Team and the Joint Management Agreement Cultural Heritage Working Group. The Cultural Heritage Work Team undertakes overall coordination of cultural heritage matters within the SCA. The Joint Management Agreement Cultural Heritage Working Group, comprising both SCA and National Parks and Wildlife Service (NPWS) officers, focuses on specific cultural heritage issues within the Special Areas.

Heritage projects carried out included the:

- upgrade of the SCA's draft heritage and conservation register. Fifty-two of the SCA's non-indigenous cultural heritage items have been formally assessed and are listed in Table 6. Thirty-five items have been assessed as having State heritage significance. Of these, 21 items have been formally placed on the State Heritage Register
- development of Conservation Management Plans for a large number of SCA heritage assets including several structures at Yerranderie; Joorilands Homestead and Kedumba slab hut in Warragamba Special Area; Walker property, Windmill Hill property and Steven's property in Upper Nepean Special Area; the Upper Nepean Scheme Dams (Avon, Cataract and Cordeaux dams; and the Upper Canal
- stabilisation and conservation works on the Yerranderie Police Station, Courthouse and St Senan's Church
- preparation of an options report for the future management of eight heritage-listed properties within the Welcome Reef area including Arnprior, Mayfield, Cookanulla, Ooranook, Khama-lea, Tara Park, La Vista and Virginia homesteads, and
- completion of stage one of a comprehensive cultural heritage assessment and management project which will set the strategic direction for managing cultural heritage for the Special Areas (joint project with NPWS).

The SCA undertook a large number of conservation planning projects during 2000–2001 in order to fill known information gaps, and meet the operational and heritage management requirements of the SCA and the community. The information gained will be used to plan and prioritise conservation works in the following years.

### THE YEAR AHEAD

#### Dam Safety

Preparation of Dam Safety Emergency Plans and Operation and Maintenance Manuals will be finalised for all prescribed dams in accordance with NSW Dams Safety Committee requirements. The SCA will complete five yearly Surveillance Reports for Cataract, Cordeaux, Warragamba, Woronora and the three Cascade dams in accordance with its Dam Safety Management Program.

Continued support for the NSW DSC and ANCOLD will be maintained by providing effective representation of the SCA on various committees and working groups.

#### Asset Management

The SCA will undertake a review its Asset Management Strategy in the coming year and, once proven successful, the Failure Modes and Effects Criticality Analysis (FMECA) trial will be extended to the remaining six bulk water systems. The SCA will also continue to develop Standard Operating Procedures (SOPs) for all assets and include safety, environment and heritage issues. It will complete the Operations and Maintenance Manuals for 'high' and 'significant hazard' dams.

#### Capital Works

The major construction contract on the Warragamba Dam Auxiliary Spillway Project will be completed in 2001–2002. Detailed planning will start on the upgrade of the entire electrical system and the lifts in Warragamba Dam. Major works will get underway on new access platforms and ladders along the Warragamba Pipelines, as well as significant planning and design for the upgrade of dam access roads. Office accommodation at Penrith and in regional locations will also be expanded to better serve the needs of customers and staff.

#### Heritage

The SCA will be defining a three-year program of conservation management works, finalising its heritage and conservation register and establishing a clear policy for cultural heritage management within the organisation.

## 2. ASSET AND INFRASTRUCTURE MANAGEMENT cont'

**TABLE 6: SCA'S CULTURAL HERITAGE ASSETS: NON-INDIGENOUS**

Heritage item	Listing on Sydney Water's 1996 draft Heritage and Conservation Register	Listing on draft 2001 SCA Heritage and Conservation Register	Listing on the State Heritage Register
Arnprior Homestead	•	•	•
Avon Dam	•	•	•
Broughtons Pass Weir		•	
Brownlow Weir		•	
Cataract Dam	•	•	•
Cobbity Village Weir	•	•	
Cookanulla Homestead		•	
Cordeaux Dam	•	•	•
Cordeaux Manor		•	
Coxs River Track, Warragamba catchment	•	•	•
Glen D'Or Homestead	•	•	•
Greaves Creek Dam		•	
Hudson's Emergency Scheme		•	
Ingleburn Dam		•	
Joorilands Homestead	•	•	
Khama Lea Homestead	•	•	•
La Vista Homestead	•		•
Mayfield Homestead	•	•	•
Medlow Bath Reservoir (Dam)	•	•	•
Megarrity's Bridge	•	•	•
Mt Hunter Rivulet Weir	•	•	
Nepean Dam (wall and valve house)	•	•	•
Nepean Tunnel		•	
Ooranook Homestead	•	•	•
Pheasants Nest Weir	•		
Prospect Reservoir and surrounding area	•	•	•
• Prospect Reservoir Valve House	•	•	•
Steven's Homestead, Cataract Catchment			
Thurns Weir		•	
Upper Nepean Scheme		•	
Upper Canal System	•	•	•
Upper Cordeaux Dam No. 1		•	
Upper Cordeaux Dam No. 2		•	
Virginia Homestead	•	•	•
Wallacia Weir		•	
Warragamba Dam	•	•	
• Crest gantry crane	•	•	
• Crest gates	•	•	
• Dam outlets	•	•	
• 18 ton Cableway	•	•	
• Haviland Park	•	•	•
• Hydro-electric power station	•	•	
• Main dam wall	•	•	
• Suspension Bridge	•	•	
• Valve House	•	•	
Warragamba Emergency Scheme	•	•	•
• Warragamba Emergency Pumping Station No. 9		•	
• Warragamba Weir	•	•	
Warragamba-Prospect Pipelines 1 & 2		•	
Wingecarribee Swamp		•	•
Woodford Creek Dam	•	•	
Woronora Dam	•	•	•



# Detailed Review of Operations

## 3. CATCHMENT MANAGEMENT AND PROTECTION

The Act states that the SCA must 'manage and protect the catchment areas'.

### OVERVIEW

The SCA has a vital role in protecting and enhancing the catchments and regulating activities to promote high quality water. Responsibilities include:

- regulating activities affecting water quality
- preserving and managing SCA-owned land
- monitoring and researching catchment health, and
- providing leadership in catchment management.

During the year the SCA instigated a number of key initiatives to achieve its catchment protection objectives, including review of development proposals for catchment areas, implementing land management strategies, and developing partnerships with community, local councils and other government agencies through its Healthy Catchments Program.

The first Annual Environmental Report 1999–2000 was published, detailing the SCA's activities concerned with the environment and the community, and environmental indicators for the catchment. Further measurements were implemented to determine any change in the state of the catchments, the environmental impacts of SCA operations and activities, and compliance with the principles of Ecologically Sustainable Development.

### 3.1 DEVELOPMENT CONTROL AND IMPLEMENTATION OF SEPP 58

The SCA has a major role in reviewing development proposals to ensure the quality of water in the catchments and the storages is not compromised. During the year, the SCA reviewed 622 development applications. Most of these were for unsewered residential developments. Of these, 189 applications required concurrence. Over 98 per cent of applications were responded to within the statutory period. A computerised development register was established to help manage the processing of applications.

Wherever possible, the SCA has ensured that appropriate controls are incorporated into development approvals to protect water quality. SCA officers inspect developments to ensure compliance with the conditions included in the consents at the direction or request of the SCA.

**TABLE:7 LAND USE IN THE WATER SUPPLY CATCHMENTS**

Description	Hectares	Per cent (rounded)
Airfield	135	0.0*
Bare ground	2,840	0.2
Eroded areas or quarries	357	0.0*
Heavily grazed pastures	65,956	4.2
Mining – installation	2,157	0.1
Mining – tailings dams	11	0.0
Moist pastures or cropping	35,522	2.2
Plantation – cleared or replanted	2,628	0.2
Plantation – native vegetation	1,750	0.1
Plantation – softwood new growth	3,853	0.2
Plantation – softwood old growth	17,104	1.1
Roads – freeway	154	0.0*
Roads – highway	1,114	0.1
Roads – major	2,506	0.2
Roads – minor	21,969	1.4
Unimproved pastures	381,977	24.2
Urban	8,109	0.5
Vegetation – forest and woodland	980,931	62.1
Vegetation – heath	6,718	0.4
Vegetation – rainforest	6,992	0.4
Vegetation – sparse	9,779	0.6
Vegetation – wetland	6,733	0.4
Water	21,220	1.3
Weir walls	45	0.0*
<b>Total</b>	<b>1,580,560</b>	

\* Less than 0.1%

### 3. CATCHMENT MANAGEMENT AND PROTECTION cont'

#### 3.2 DRAFT REGIONAL PLAN

In October 2000, the Department of Urban Affairs and Planning (DUAP) exhibited a draft Regional Plan (RP) for Sydney's drinking water catchments. This plan has three components:

- a Regional Environmental Plan (REP) made under Part 3 of the Environmental Planning and Assessment Act 1979
- catchment management strategies to improve the planning, management and knowledge base for water quality protection in the catchments, and
- a framework for development of a Catchment Rectification Action Masterplan.

Following considerable community debate the government decided to extensively review the Plan. The SCA has been actively assisting DUAP in developing the Plan and in community consultation.

**TABLE:8 HABITAT ANALYSIS  
ALONG RIPARIAN LINES**

Habitat	Hectares	Per cent of riparian zone
Unimproved pasture	64,093	24
Improved pasture	3,827	1.4
Degraded pasture	9,103	3.4
Natural vegetation	185,071	69.2
Mining activity	249	0.1
Plantations	3,951	1.5
Bare ground	392	0.1
Urban	782	0.3
<b>Total</b>	<b>267,468</b>	

#### 3.3 LAND MANAGEMENT

The SCA is responsible for complying with its legislative responsibilities as a landholder and promoting best-management techniques, within the Special Areas and elsewhere. Land management activities are targeted towards soil conservation, fire management, pest and weed management, access control, ecological investigations and management, cultural heritage management and utilities management.

##### Shoalhaven Land Management

Construction of the Welcome Reef Dam on the Upper Shoalhaven River has been deferred indefinitely. The SCA is committed to maintaining the properties it owns in the area. Renewed land management efforts in the past year have focused on weed and pest control, soil conservation and maintenance of boundary fences. Strong community ties have been developed with the Braidwood School via the Riverlea project, and detailed management plans have been developed for several properties owned by the SCA.

##### Special Areas Strategic Plan of Management

The Special Areas Strategic Plan of Management, which was jointly developed by the National Parks and Wildlife Service (NPWS) and the SCA, was adopted by the NSW Minister for the Environment on 9 May 2001. Special Areas cover about 370,000 hectares of land surrounding water storages.

The SCA and NPWS are implementing joint management programs to protect the catchments, sustain their ecological health, and minimise risks to the supply of water for Greater Sydney and Illawarra. Key cooperative achievements in the past year included:

- a \$1.08 million 'rapid response' seasonal fire crew program to minimise contamination of the water supply from ash and nutrients, and
- agreement on a vegetation mapping project, initially for the Upper Nepean and Woronora catchments, to assist with catchment management practices including fire, threatened species, infrastructure works and environmental impact assessments.

##### Wingecarribee Swamp and Special Area Plan of Management

A new plan of management for the ecologically important Wingecarribee Swamp, jointly developed by the SCA and the NPWS, was adopted by the NSW Minister for the Environment on 1 May, 2001.

The plan outlines strategies and actions that will be undertaken to maintain and enhance the important values of the swamp and adjoining lands. It builds on the substantial work the SCA has undertaken to manage and protect the swamp since the collapse in 1998, including \$700,000 spent on an extensive weed control program and flora and fauna surveys.

##### Land Transfer

As required by section 45 (2) of the 1998 Sydney Water Catchment Management Act, the Minister for the Environment undertook a review of all Special Area lands that are owned or vested in the SCA. Special Area lands are predominantly those lands located closest to the water storages.

As a result of the review, the Minister determined the objectives of the SCA would be more effectively attained if the land within the Warragamba, Katoomba, Blackheath, Woodford, O'Hare's Creek and part of the Shoalhaven Special Area were vested in the Minister administering the National Parks and Wildlife (NPWS) Act 1974. Upon transfer to the NPWS, these lands will form part of the Blue Mountains and Kanangra Boyd National Parks.

The Minister deferred consideration of the transfer of Woronora and Metropolitan Special Areas pending the resolution of certain use issues. The Minister's determination was published in the Gazette on 29 June 2001.





# Detailed Review of Operations

## 3. CATCHMENT MANAGEMENT AND PROTECTION cont'

### 3.4 OUTREACH ACTIVITIES

The SCA scaled-up its vital outreach program, aimed at developing effective partnerships between the SCA and the communities that live within a catchment area. The opening of new SCA offices in Moss Vale and Goulburn played an important role in making SCA staff and services more accessible to people within these catchment areas.

Initiatives to encourage improved land management techniques and industrial practices included working with community-based groups such as Landcare and individual landholders, and building networks with local government and other government agencies. SCA officers have also been active in delivering SCA assistance programs, interacting with the community at field days and local shows, and liaising with industries and individual landholders.

#### Healthy Catchments Program

The Healthy Catchments Program is an umbrella program instigated by the SCA to draw together its catchment protection, enhancement and community involvement programs. It consists of the:

- Catchment Enhancement and Protection Program
- Catchment Protection and Improvement (Community) Grants Program, and
- Catchment Protection Scheme.

Under Healthy Catchments, the SCA spent \$7 million on a broad range of activities, forming part of the \$21.5 million the SCA spent on catchment protection for the year.

#### Catchment Enhancement and Protection Program

Work continued on strategic on-ground catchment protection activities identified under the Catchment Enhancement and Protection Program. The projects, which were managed by the SCA, included:

- a \$1.1 million road rehabilitation program to help local councils reduce the impacts of dirt roads that cross rivers and creeks within catchment areas
- announcement of \$1 million assistance for Councils in the catchment areas to implement local stormwater programs
- enhancing the ChemCollect program, a joint NSW and Federal Government initiative aimed at clearing NSW farms of unwanted chemicals, to include collection of household chemicals in the catchment areas
- acceleration of a DLWC soil-mapping program to fill information gaps about soil types in SCA catchments. This information will be used to make decisions about how best to improve water quality in local creeks and rivers and help landowners make decisions about how they use their land, and
- a successful pilot program in conjunction with Goulburn City Council to replace ageing sewer pipes, using state-of-the-art machinery. This program will be used to assist other Councils in the catchments.

#### Catchment Protection and Improvement Grants Scheme

Recognising the important contribution being made by people living and working within the catchments, the SCA continued with the Catchment Protection and Improvement Grants Scheme. Grants of up to \$8000 (excluding GST) were again provided to support community projects consistent with the SCA's objectives.

In the past year, the SCA received 45 applications for funding, and after assessing these against its objectives, awarded funds to 29 applicants to a total value of \$197,916 (excluding GST). The broad range of catchment improvement initiatives included awareness strategies for grazing management, weed removal and bank stabilisation in riparian zones, development of interpretive signage in community reserves, and fencing and planting of native species.

#### Catchment Protection Scheme

In August 2000, the SCA and the DLWC signed an agreement to continue supporting landholders carrying out erosion control and land management work under the Catchment Protection Scheme (CPS).

The CPS, which is administered and managed by DLWC, was endorsed for a further two years and will continue addressing high priority historical land degradation, and encourage best practice through:

- implementing remedial works
- community education and awareness, and
- planning and training.

Expressions of interest in the CPS were received from a wide geographical area, enabling resources to be targeted to sites of greatest water quality impact. The SCA contributed \$620,000 to the scheme.

### 3. CATCHMENT MANAGEMENT AND PROTECTION cont'

#### 3.5 ENVIRONMENTAL INDICATORS

The draft Environmental Indicators and Ecologically Sustainable Development (ESD) Indicators were finalised and approved by the Board on 8 December 2000.

The Environmental Indicators are measures of change in the state of the catchments and the environmental impacts of the SCA's operations and activities. The ESD indicators will indicate the degree to which the SCA's activities comply with the principles of ESD.

These indicators will form the basis for the SCA's annual environmental reporting and guide the improvement of its operations and activities. Monitoring and compiling data using the Environmental Indicators commenced in March 2001.

#### THE YEAR AHEAD

The SCA has made significant progress in achieving its catchment protection responsibilities over the last year and this work will be continued in the year ahead. Significant challenges will include:

##### Regional Plan (RP)

The Department of Urban Affairs and Planning will be exhibiting a revised draft Regional Plan (RP) in 2001–2002. The SCA will be involved in the exhibition and community consultation process and will have a major role in implementing the development control and catchment strategies contained in the RP. As part of this process, the SCA will be active in promoting awareness of the Plan.

##### Second independent catchment audit

The SCA welcomes the second independent audit of its catchment area, which will provide an updated assessment of the catchment's health. By comparing the results of the previous catchment audit, the 2001 report will enable the SCA to identify trends and changes in the catchment since the 1999 audit.

The audit, which is independent of the Regional Plan, will have a strong consultation element involving state, local government and community representatives who will provide advice directly to the independent auditor.

##### Accelerated Sewerage Scheme

The collection, treatment and disposal of sewage in the catchments is a prime concern for the SCA and a new scheme will see the SCA provide \$20 million dollars over the next five years towards accelerating sewerage services in the catchments.

The SCA-administered scheme will be funded through the Department of Land and Water Conservation's Country Towns Water Supply and Sewerage Program and should result in existing catchment area sewerage systems being brought up to an acceptable standard over a period of five–seven years.



# Detailed Review of Operations

## 4. PROTECTING AND ENHANCING WATER QUALITY

The Act states that the SCA must 'protect and enhance the quality of water controlled by the SCA'.

### OVERVIEW

The SCA protects and enhances water quality in the catchments through a variety of activities and programs. An effective water quality monitoring network is a vital component in this multi-faceted approach.

The SCA conducted its water quality monitoring under the Annual Water Quality Monitoring Program 2000–2001, which covered monitoring for regulatory, operational and planning purposes.

In addition to a rigorous pathogen monitoring program, the SCA has started monitoring of pesticides and heavy chemicals in the inflows into the water filtration plants, as specified in the Operating Licence.

Experimental environmental flows were carried out to help set appropriate levels of water releases for rivers in SCA catchments, and to meet SCA's water management licence requirements.

### 4.1 WATER QUALITY MONITORING

The SCA operates and maintains an extensive water quality and quantity monitoring network.

Information gained from monitoring is used for:

- selecting 'best water' for delivery to SWC and other customers
- long-term assessment of dam inflows
- flood studies
- planning for storage and transfer
- drought evaluation
- providing information to the State Emergency Services (SES) during floods under the NSW Flood Plan
- compliance with riparian and environmental flow requirements
- compliance with EPA licences
- assessing sediment loads entering reservoirs
- assessing contaminant loads entering reservoirs
- modelling for water supply strategic planning
- assessing impacts on downstream communities
- long-term viability of storages
- evaluating long-term land use and other changes
- long-term trends in water quality
- environmental indicators reporting, and
- research and development.

The SCA operates 88 water level recorders and 155 rainfall stations in the catchments, storages, and downstream of the dams. They collect information on water levels and rainfall on a continual basis.

Information on the chemical and biological quality of the water in catchment streams is collected through monthly routine sampling at 26 sites in the catchments. Table 13 and Figures 19–21 in Appendix 2 show water quality data for the monitored sites.

Information on the quality of the water in the storage dams is collected monthly at 12 sites and on a fortnightly basis at seven locations. In addition, during the summer, information on water quality is collected on a weekly basis at a number of locations that have the potential to suffer from algal blooms. Median water quality parameters in storages are shown in Table 14 in Appendix 2.

Biological monitoring stations located at two sites on the Upper Canal system are linked to a 24 hour alarm monitoring network. These stations contain fish, which generate stress signals and provide early warning of potential contamination.

Some water quality measurement is also undertaken in the rivers downstream of the dams for environmental flow planning.

## 4. PROTECTING AND ENHANCING WATER QUALITY cont'

### 4.2 SPECIAL PROGRAMS

The SCA supplemented routine monitoring with special programs to deal with pathogens and other poor water quality issues. The SCA also monitors for pesticides and blue-green algae, and has developed contingency and emergency response plans to deal with incidents such as suspected or actual pollution, major floods, or any water quality problems.

#### Pathogen Monitoring

The pathogen monitoring program implemented as part of recommendations resulting from the Sydney Water Inquiry was modified in consultation with SWC and NSW Health. The modified program was endorsed by the Cabinet Sub Committee on Water and implemented from April 2001.

Under this program, the pathogens *Cryptosporidium* and *Giardia* are now monitored six days a week at Warragamba Dam and Broughtons Pass Weir. They are also monitored twice-weekly in Prospect Reservoir, weekly in Werriberri Creek (the nearest inflow to Warragamba Dam) and Wingecarribee Dam, and monthly in the Wollondilly and Coxs Rivers.

Automatic samplers have also been installed at seven locations around Lake Burragorang to monitor protozoa during storm events. Table 15 in Appendix 2 shows the sample numbers and test results for *Cryptosporidium* and *Giardia* in the SCA's major lakes and bulk water supply system.

The SCA has also introduced 'hotspot' monitoring for protozoa at a number of sensitive locations around the catchment, such as sewage treatment plants, sale yards, and piggeries.

A suitably qualified independent laboratory, Australian Water Technologies (AWT), carries out additional protozoa testing to complement the SCA's regime.

In addition, a percentage of all samples, as well as all samples that test positive, are checked by another independent laboratory, the Australian Water Quality Centre in South Australia.

### Pesticides and Chemicals

Schedule 4 of the Operating Licence requires monitoring of specified pesticides, chemicals and radiological compounds in the inflows into the water filtration plants of all customers. The SCA has started a program for monitoring these compounds.

### 4.3 ENVIRONMENTAL FLOWS

The SCA completed its analysis and report of data collected during experimental environmental flows on the Hawkesbury-Nepean River. The report, which is available on the SCA Website, includes results of the extensive monitoring and analysis of the effects of the releases from the water storage dams. The results are assisting the Hawkesbury-Nepean River Management Forum set environmental flows for the river.

During March 2001, water was released from Woronora Dam to help assess an environmental flow regime for the Woronora River. The releases were specified by the NSW Healthy Rivers Commission and ranged from a rate of 20 million litres of water per day to 200 million litres per day. A team of environmental experts monitored and assessed the flows in the river. They examined the effects that the flows had on fish, macroinvertebrates, riverine vegetation, and changes in the river pools.

The SCA also commenced the release of low-level environmental flows from all its water storage dams and weirs on the Nepean River (except at Avon Dam where current outlet works prevent the release of low flows of water). Up to 45 million litres of water per day is released into the river downstream of the SCA's water supply storages to supplement natural flows. Environmental releases to the Shoalhaven and Wingecarribee Rivers also continued. These releases are now a requirement of the SCA's water management licence.

### 4.4 WATER QUALITY RISK MANAGEMENT

The SCA adopted a risk management methodology for identifying, assessing and handling all risks, which is consistent with the Australian Standard AS/NZS 4360:1990 Risk Management.

The SCA's risk management strategy has been developed to:

- formalise the SCA's commitment to managing risk in a systematic way
- help the SCA fulfil its obligations under the Sydney Water Catchment Management Act 1998 and its Operating Licence in regard to identifying and managing risks to public health, water quality and catchment health, and
- provide a consistent approach for identifying and managing risk across the SCA.

The SCA has undertaken a number of strategic, wide-ranging risk management studies including the preliminary Pollution Source Risk Management Plan to identify and assess sources of pollution, and set out actions to improve the quality of bulk water.

### THE YEAR AHEAD

The Bulk Raw Water Quality Management Plan, which adopts a multi-barrier risk management approach in managing water quality, will be implemented in the coming year. Specific initiatives that will enable the SCA to achieve best practice water quality management include:

- developing a source/offtake selection model which incorporates storage balancing and water quality
- enhancing storage balancing program to include water quality issues
- monitoring entry of pesticides into the SCA storages
- studying zone of influence on abstraction profile within the lake
- improving monitoring through attaching dissolved oxygen probes to thermistor chains, and
- implementing a Blue-Green Algae Management Strategy.

In addition, a \$2 million project to undertake limnological studies of Lake Burragorang and Prospect Reservoir will be carried out. Limnological models simulate the movement and mixing of the water within the storages and the biological and chemical processes that influence water quality. The study will provide a better understanding of contaminant movement in the lake to help the SCA make off-take selection decisions, which will ensure supply of safe and healthy water.



# Detailed Review of Operations

## 5. RESEARCHING THE CATCHMENTS

The Act states that the SCA must 'undertake research on the catchments generally, and in particular on the health of the SCA's catchment areas'.

### OVERVIEW

The SCA has extensive statutory research requirements as provided by the Act and the new Operating Licence. A research strategy has been developed which will deliver on these requirements and establish the SCA as the leading agency for research on the water catchments of the Greater Sydney region.

The SCA Board has developed seven strategic priorities, one of which includes the undertaking and sponsoring of water quality monitoring and research.

At the start of 2001–2002, a three-month review process culminated with the development of a structured and prioritised Research Program with a five-year outlook. The review considered legislation, recommendations from experts, expectations of stakeholders and a survey of SCA staff. The Board of the SCA approved the Research Program in September 2000.

### 5.1 RESEARCH PROGRAM

The Research Program is formed from an integrated set of approximately 30 projects. During the first year, most of these projects involved expert review and priority-setting work to ensure the adoption of current knowledge, the systematic identification of information gaps and to avoid repeating previous work. The outcomes will be:

- precisely defined study questions
- expert review of what is already published in the literature, and
- communicating that knowledge to SCA staff and stakeholders.

The SCA spent \$3.2 million on research and development projects in 2000–2001. The three largest projects initiated were:

- **Contaminant export rate and budgeting** with the CSIRO, Cooperative Research Centre (CRC) for Catchment Hydrology, University of Western Sydney and Australian Water Technologies.

The project will provide the most accurate currently available information on export rates for contamination arising from diffuse pollution sources found on the SCA's land. The literature is being critically reviewed and interpreted in the local context (soils, land uses, management practices, climate) with an expert workshop program providing peer review.

Outputs will be used to help assess neutral or beneficial effect and in prioritising catchment rectification actions. Following the review stage, the SCA will undertake long-term export measurement experiments to fill the most critical knowledge gaps identified. These will measure the benefits of the catchment rectifications undertaken under the Regional Plan and Catchment Enhancement and Protection Program.

- **Pollution source tracing and tracking tools** with CSIRO, Australian National University, University of New South Wales and EcoWise Environmental.

The project will provide a practical summary of the most cost-effective means of determining the origins of pollution found in our water. Once the review is complete, the most appropriate analytical and modelling techniques will be applied across the catchment. Some tools identify specific sources of contamination by pinpointing the contribution from a specific site. Others identify the relative contributions of different types of land use, for example, apportioning sediment pollution between gully and sheet erosion.

- **Catchment and reservoir conceptual modelling** with Patterson Britton and Partners, CRC Catchment Hydrology and Monash and Melbourne Universities.

A conceptual model is being developed that draws together the literature describing the relationship between activities on land and in storages and the resultant water quality impacts. The model uses are twofold: firstly to systematically identify knowledge gaps for further investigation and, secondly, to form a knowledge repository, packaged into a user-friendly information pack for use in stakeholder education.

## 5. RESEARCHING THE CATCHMENTS cont'

### Pathogenic Microorganism Research

Since the 1998 water contamination incident that led to the formation of the SCA, the SCA has undertaken research to provide a clearer understanding of the sources, fate and transport of pathogenic microorganisms. The largest two projects undertaken in 2000–2001 were:

- “hotspots” pathogen source measurement with Australian Water Technologies with peer review of methods from the University of New South Wales, Sydney University, Australian Laboratory Services and NSW Health. This project, which entered its third phase during the year, is determining the extent to which different sources in the catchment contribute pathogens to waterways. The project addresses both point and diffuse pollution sources.
- fate and transport of pathogens in catchments with the American Water Works Association Research Foundation, the CRC for Water Quality and Treatment, Melbourne Water, the Water Services Association of Australia and the University of New South Wales. This project is providing fundamental knowledge on the rate of movement and decay of pathogens in catchments.

### Land Management Research

The SCA directly manages large tracts of land in the Sydney catchments. Research has been undertaken in 2000–2001 to objectively assess the benefits of the work that it undertakes in these catchments. The most significant projects undertaken in the year were:

- land stability trend analysis in the Braidwood area with Barry Starr Pty Ltd. The erosion control and revegetation work being undertaken across the catchments under the Catchment Protection Scheme is aimed at the long-term protection of the catchments. Both the success and the basis for targeting of these works is being objectively assessed by an independent soil conservation expert.

- fire ecology research with the University of Wollongong. The SCA is meeting its requirements to undertake research in relation to fire ecology by assessing the effect of its fuel control burning regimes on ecological integrity. The use of occasional small fuel control burns is essential. It prevents major bushfires that can “cook” the soil and lead to massive erosion and major dirty water problems. However, too frequent burning can cause ecological harm. The SCA’s research is aimed at ensuring an appropriate balance.
- an accelerated research program focusing on the Special Areas in liaison with National Parks and Wildlife Services (NPWS). Existing technical information on the Special Areas is being collated and reviewed as part of a systematic identification of knowledge gaps. At the same time, the required Independent Scientific Committee is being put together to advise on this research program. A Special Areas Strategic Management group has been set up between the SCA and NPWS.

### 5.2 RESEARCH PARTNERSHIPS

Most of the work being undertaken by the SCA is specific to its particular catchments. However, many of the knowledge needs of the SCA are generic and are shared by organisations with similar responsibilities both nationally and internationally. The SCA has joined a number of research organisations that undertake generic research to fill these gaps. Specifically:

- CRC for Water Quality and Treatment. The SCA is a Board Member and leads the catchment research program within this CRC. Current research includes studies of the fate and transport of pathogenic microorganisms in catchments as well as epidemiological studies on the effects of cyanobacteria (blue-green algae) on human health
- CRC for Freshwater Ecology. The SCA is a Board Member and provides an office at Penrith for one of the staff of this CRC. Current research focuses on the biological health of fish, macroinvertebrates and riparian vegetation in the catchments upstream of the dams as well as the influence of controlled releases of reservoir water on the ecological health downstream

- American Water Works Association Research Foundation. The SCA is a member of the largest drinking water research organisation in the world, ensuring an awareness of the latest developments in water quality management and health. Current research includes a major study of the fate and transport of pathogens in catchments, in which the SCA is the participating utility
- Water Services Association of Australia. The SCA is a Board Member of this organisation, which undertakes research on behalf of the national water industry.

### THE YEAR AHEAD

The SCA has allocated \$1.8 million to its research and development program for the coming year to improve management of water quality and the environment. Significant projects in this program will take two to three years to complete. During this time there will be a staged delivery of research findings to ensure the SCA is at the forefront of catchment protection and water quality.

Amongst the most significant work planned for 2001–2002 is the integration of information from a range of programs to identify the relative contribution of particular sources of pollution. This knowledge will provide a defensible basis for setting priorities for catchment rectification in the short term. In the long term, the same technique will provide objective evidence of the benefits of catchment rectification action.

The accelerated research program flagged by the Plan of Management for the Special Areas will be scoped out based on the findings of a review of current knowledge. An appropriate independent scientific committee will be appointed and their input considered.



# Detailed Review of Operations

## 6. COMMUNITY EDUCATION AND INFORMATION

The Act states that the SCA must 'undertake an educative role in the community'.

### OVERVIEW

The aim of the SCA's education program is to increase understanding and awareness of the importance of catchment health in maintaining water quality.

Central to achieving the SCA's education goal was the development of effective partnerships with the catchment communities. The SCA also continued its commitment to fostering student knowledge and understanding of the catchments.

Extensive planning work was also undertaken to lay the foundations for significant projects that will yield visible results in 2001–2002, such as the Website redevelopment, the Mobile Education Unit, and the establishment of SCA's outreach Education Team (incorporating Streamwatch).

### 6.1 CATCHMENT EDUCATION

The SCA's Catchment Education program is a comprehensive and wide-reaching education service that targets community groups, students and individuals both within and outside of the catchment area. Delivery is via SCA's educational facilities at Warragamba Visitor Centre, as well as pro-active catchment education outreach programs.

The SCA has also continued to build partnerships that support and help education programs reach the SCA's catchments. Examples include sponsoring Keep Australia Beautiful's Wastewatchers education program to enable it to develop stormwater material and deliver it in the catchments, and sponsoring the AWA's 'We all use water' kit – a comprehensive education package designed for schools.

#### 'Crystal Clear' Performance Partnership

In the latter half of the year, the SCA joined forces with the University of Western Sydney's School of Contemporary Arts to develop a catchment-themed educational performance for primary school children. This innovative show will tour 33 catchment schools in August 2001, reaching 6,500 children. A resource kit for teachers was developed to accompany the performance.

### SCA Website

A major project to redevelop the SCA's Website was initiated to re-design the look and feel of the Website, improve navigation, and increase the volume of information on the site. Comments and feedback were collected from the public via an online user survey. The survey responses reflected the high number of students using the SCA site for research purposes. The existing site continued to be popular, highlighted by a steady climb in user statistics with an increase of around 500 new users visiting the site each month.

### Mobile Education Unit

Planning and tender development for the Mobile Education Unit began in latter half of the year, with the unit expected to be on the road in early 2002. An additional Catchment Education Officer position will run the unit and provide outreach education. This position will be based at a field office in the catchments.

### Streamwatch

The SCA is committed to supporting the Streamwatch program, and will be bringing the program in-house during 2001–2002. This represents a significant step for the SCA, and the ensuing expansion of the program (currently 30 groups) in the SCA catchments will be a highlight of the coming year.

### Student Resource Service

The SCA continued to provide an excellent education enquiry service, and received a stream of excellent feedback from students who have benefited from the service. Around 60 enquiries per week were handled – covering education, general information, and recreational enquiries.

The past year has highlighted the need for the SCA to provide resources for senior secondary students. The new chemistry syllabus places specific emphasis on water quality and catchments, and the SCA has created new resources to meet student and teacher needs in this area. Other curriculum areas serviced include science, geography and Human Society in the Environment.



## COMMUNITY EDUCATION AND INFORMATION cont'

### Warragamba Dam Education Services

The school education program at Warragamba has continued to provide valuable opportunities for teachers to expand on relevant areas of the syllabus. The Warragamba team delivered the educational excursion program to around 4,500 students in 2000–2001, with numbers still down due to the Auxiliary Spillway Project (which has kept the dam temporarily closed). Refinements were made to presentation material to increase the focus on catchment and water quality issues.

### 6.2 COMMUNITY AWARENESS

The focus of the SCA's Community Awareness Program is on raising public awareness and providing information on how communities can work with the SCA to help protect catchments.

The SCA's educational presence in the catchments was enhanced by SCA attendance at relevant community events and shows throughout the year, including the Royal Easter Show, regional agricultural shows, Environment Week events, Biodiversity Day, Heritage Week, Great River Walk and Streamwatch Awards.

### Community Awareness Research

The SCA instigated a Community Awareness Research project to establish a baseline against which existing knowledge about catchments, water supplies, and the SCA's activities can be measured. The project is also exploring community attitudes in relation to a broad range of water and catchment issues.

The qualitative component of the Community Awareness Research Project, comprising a series of focus groups, was completed. Quantitative survey work will be completed in 2001–2002. Results will help the SCA tailor education and communication strategies to target audiences.

### 'Our environment – it's a living thing'

At the state level, the SCA was represented on the working group that developed and evaluated 'Our environment – it's a living thing', sustainability awareness campaign. This three-year \$17 million campaign is the largest community environmental awareness campaign ever staged in Australia. The SCA will continue to contribute to the campaign to ensure it incorporates specific catchment management messages.

### Publications

Publications development continued over the year. A photo and image library was established including photographs of all the SCA's assets and catchment areas, and various images of SCA staff at work. Many of these will be made available to the public via the SCA's website.

### 6.3 MEDIA RELATIONS

The SCA's media program for the year combined a proactive media policy with response to ongoing media attention on a variety of issues. A total of 72 media releases and statements were issued for the year focusing on:

- working with catchment communities to protect local rivers and streams
- reinvesting funds in the catchments raised by sale of water to metropolitan communities, and
- being a reliable supplier of quality bulk water.

Coverage of stories included chemical collections, fire hazard reduction burns, community grants, erosion prevention programs, sewerage upgrades, research programs, new regulations, the SCA's role, and the new Wingecarribee Swamp and Special Area Plan of Management.

The draft Regional Plan remained a primary issue for regional media during the year, together with development issues surrounding the SCA's concurrence role under SEPP 58. Metropolitan media interest in the SCA and its activities focused on water quality, dam storage levels, and environmental initiatives.

### 6.4 VISITOR SERVICES

The SCA's dams attracted a large number of visitors during the year. The dams are a major tourist attraction in the greater Sydney region and play a significant role in the NSW tourism industry. In addition to recreational visitors, the dams attract school, community and special interest groups, and official delegations (domestic and international) seeking information on Sydney's water supply infrastructure and catchment management issues by way of face-to-face presentations and tours.

The SCA provided facilities for passive recreation free of charge at 10 of its 21 dams. Picnic tables, BBQs, hot water services, toilet facilities, children's playgrounds and general picnic grounds were maintained at high standards throughout the year.

### Warragamba Dam Visitors Centre Interpretive Strategy

As part of the Warragamba Dam Auxiliary Spillway Project, the Visitor Centre and recreational facilities at Warragamba Dam will be restored and substantially redeveloped. The SCA has undertaken a number of planning initiatives to provide an appropriate framework for the redevelopment including:

- engaging a social research firm to conduct community/stakeholder consultation, visitor needs studies and to review the method used to compile visitor statistics
- appointing an interpretive planning firm to develop a draft SCA-wide interpretive planning strategy to identify ways to disseminate information to visitors at the dams and other public sites and a framework for interpretation at the planned new Visitors Centre at Warragamba, and
- engaging a landscape and building architectural consultancy to develop a master plan for the redevelopment. The master planning process addressed a number of key issues including community and visitor needs and expectations, operational requirements, environmental and heritage issues, and interpretive and educational opportunities.

### THE YEAR AHEAD

The SCA will have access to community research findings, which will provide a vital tool for planning the ongoing refinement and development of the SCA's education and community awareness programs.

Activities already planned for the coming year include the development of the Streamwatch and Outreach Education programs, launch of the Mobile Education Unit, finalising the new Website and developing a broad range of new publications to communicate key SCA messages.

In addition to its community education and awareness programs, substantial effort will be allocated to the Warragamba Dam Visitor Centre and Recreation Area redevelopment program. Following adoption of the Master Plan, concept and detailed design for the recreational grounds, facilities and structures, including staff accommodation and Visitors Centre, will be developed.



# Detailed Review of Operations

## 7. COMMUNITY CONSULTATION AND FEEDBACK

**Community support for catchment management and protection is essential to the work of the SCA and to achieving its ultimate objectives of healthy catchments and quality water.**

### OVERVIEW

To improve stakeholder involvement in wide-ranging issues relating to the catchments, the SCA established consultative committees involving local government, regional community representatives, and experts. There have been significant improvements in its complaints handling system, with obligatory staff training across all divisions of the SCA's operations. The SCA continues to work cooperatively with its stakeholders and the community to achieve the best outcomes for the catchments.

### 7.1 CONSULTATIVE COMMITTEES

New consultative committees provided greater stakeholder involvement in issues relevant to the performance of SCA's Operating Licence obligations. The role of these committees includes advising the SCA on perceptions and concerns on relevant issues, fostering debate on catchment management and water quality matters, as well as promoting and providing opportunity for community and local government involvement in SCA's operations.

Membership is for a set term of two years, at the end of which a member may retire or seek renomination for a final term.

The SCA has established four consultative committees:

#### Local Government Reference Panel

In July 2000, the SCA established a Local Government Reference Panel (LGRP). Membership of the Panel includes an elected and a staff representative from each of the 16 local government authorities within the catchments.

Following an inaugural meeting in July 2000, the LGRP met a further four times during the year. The group has provided advice on the SCA's Strategic Priorities Action Plan, the Warragamba Visitors Centre Project, the Risk Management Plan, and the SCA's submission on the Draft Regional Plan.

#### Regional Consultative Committees

In October 2000, the SCA established two Regional Consultative Committees (RCCs), representing the northern and southern regions of the catchment. Membership of the RCCs includes community representatives from local environmental groups, business groups, farming interests and customers.

Inaugural meetings for the Northern and Southern RCCs were held in December 2000. The RCCs have met three times over the past year and provided advice on the Warragamba Visitors Centre Project, the Special Areas Strategic Plan of Management, the Draft Regional Plan, and issues related to the SCA's Operating Licence.

#### Expert Reference Panel

The SCA established an Expert Reference Panel (ERP) in October 2000. Membership of the ERP includes renowned scientific and technical experts in the areas of water resource management, public health, catchment management, farming, and the environment.

The Panel has met twice during the year. The ERP has provided advice on the issues of neutral or beneficial effect guidelines, access to Special Areas and storages, the SCA's Pollution Source Risk Assessment, and its research programs.

#### Warragamba Dam Auxiliary Spillway Project

The SCA is also actively managing the concerns of the community in relation to the construction of the Warragamba Dam auxiliary spillway through an independently chaired Community Liaison Committee (CLC). The CLC met monthly throughout the year to consider issues related to the project and provide advice and information to the SCA on behalf of the community.

## 7. COMMUNITY CONSULATION AND FEEDBACK cont'

### 7.2 EXHIBITION OF PLANS AND REGULATIONS

The SCA exhibited a number of documents for public comment during the year including:

- Draft Ecologically Sustainable Development Indicators (ESD)
- Draft Wingecarribee Swamp and Special Area Plan of Management
- Draft Environment Plan 2000–2005
- Draft Pollution Source Risk Management Plan, and
- The Regulatory Impact Statement including the Sydney Water Catchment Management (Environment Protection) Regulation 2001.

### 7.3 COMPLAINTS HANDLING

The SCA has adopted a Complaint Handling Policy and Procedure. This enables people to make a complaint on any matter they are dissatisfied with and have the matter investigated in a fair, courteous and confidential manner. The SCA's policy is to:

- respond effectively to complaints
- ensure people are satisfied that their complaint was investigated in a fair and courteous manner, and
- make improvements based on the information received from complaints.

The complaints procedure is supported by a computer based complaints handling system.

The SCA produced a brochure titled "How to make a complaint or offer a compliment". Copies of the brochure were forwarded to customers and suppliers of the SCA, and to councils in the catchments. Copies were also made available to the public at SCA offices and on the SCA Website. In addition, the two Regional Consultative Committees and the Local Government Reference Panel were briefed on the Complaint Handling Policy and Procedure.

Training of both existing and new staff on complaints handling continued during the year.

### Measuring Complaints

A total of 114 complaints were received during the year. Of these, 80 complaints were related to the construction of the Warragamba Dam auxiliary spillway.

The categories and numbers of complaints received from the community were:

- environmental and heritage issues – 78
- picnic area facilities – 9
- staff/contractors – 7
- liability claims (damage) – 6
- external customers communication – 4
- customer service – 2
- others – 2
- catchment use (recreational) – 2
- allegations of mismanagement – 2
- water continuity – 1
- water pricing – 1

As at 30 June 2001 there were 10 complaints still to be resolved:

- environmental and heritage issues – 4
- liability claims (damage) – 2
- staff/contractors – 1
- picnic area facilities – 1
- external customers communication – 1
- others – 1

### Operational Changes Arising from Complaints

In response to community concerns and following comments made by the Auditor for the SCA's Operating Licence on complaints, the SCA implemented a number of changes to its business.

In relation to the impact of blasting and activities associated with the construction of the auxiliary spillway the SCA initiated:

- an additional survey of houses closest to the construction site which demonstrated that the condition of the properties was substantially the same as at the time of the original inspection, and
- the opportunity for complainants to have their houses inspected by an independent structural engineer at the SCA's cost.

The SCA strengthened its commitment to resolving project-related noise complaints by applying a rigorous process for responding to noise complaints. The process was developed and agreed by all parties associated with the project, including the Community Liaison Committee.

### THE YEAR AHEAD

In the coming year, the SCA will implement new complaints handling software that will significantly improve the tracking of complaints and outcomes.

The coming year will see many more opportunities for public comment and interaction, with the following items due for release:

- Review of Memoranda of Understanding – SCA and Environmental Protection Agency (EPA), Water Administration Ministerial Corporation (DLWC) and NSW Health
- Revision of the Bulk Water Supply Agreement with Sydney Water
- Draft Prospect Plan of Management, and
- Annual Water Quality Monitoring Program 2001–2004.

The SCA will continue to actively involve its consultative committees in the preparation of key SCA documents and strategies.



# Detailed Review of Operations

## 8. OUR PEOPLE

The SCA's commitment to its people is reflected in its corporate values through which the Authority undertakes to:

- provide a high quality work environment where productivity, creativity and personal and professional growth can flourish
- value diversity and the open exchange of ideas and information
- conduct ourselves with honesty and integrity and treat each other fairly
- foster a culture of excellence, highly supportive of employee growth and development, and
- demonstrate a commitment to safety and public health.

### OVERVIEW

The SCA is committed to ensuring it has the resources it needs to achieve its corporate objectives. During the year, the SCA reviewed its people and structural requirements and effected changes to ensure its long-term success.

Recruitment policies have focused on recruiting people with the skills and expertise to meet the strategic objectives and direction of the SCA. The SCA has adopted the NSW public sector common selection criteria in its recruitment process.

### 8.1 DEVELOPING OUR PEOPLE

#### Organisational Review

Key outcomes of the year included the transfer of the technical support team to the Bulk Water Division, ensuring that technical services were fully aligned with the SCA's commitment to undertake an expanded role in water quality improvement. As a result of these reporting line changes, there was no longer the need to maintain the General Manager position for Dam Safety and Technical Services.

A review of Business Services resulted in the creation of a separate Finance and Procurement Branch with the Chief Financial Officer reporting directly to the Chief Executive. This will assist in strategic development and provide a more direct and interactive contribution to the SCA's Executive team.

### Training and Development

The SCA has focused on delivering training that meets its regulatory and compliance responsibilities while also supporting the developmental needs of its workforce.

Regulatory and compliance based training has seen staff attend training in EEO and grievance handling, complaints handling, OHS&R, environmental education, and incident management.

Other specific job-related and personal development training has focused on areas such as project management, tender evaluation, contract management, environmental management, information technology systems, and computer applications.

#### Aboriginal and Torres Strait Islander Natural Resource Cadetship Program

The SCA is participating in a program to provide cadetships for Aboriginal and Torres Strait Islander people doing undergraduate study in the field of natural resource management.

The scheme includes the Upper Parramatta River Catchment Trust, Lake Illawarra and Chipping Norton Lake Authority, Premier's Department, and the Department of Land and Water Conservation (DLWC).

#### Employee Relations and Policy Development

There has been a considerable effort dedicated to revising and developing human resource policies and procedures in the areas of grievance handling, code of conduct, staff development, work experience, performance management, equity and diversity, and flexible work practices.

The SCA has proceeded with negotiations on a new award to replace its existing industrial regulation – the Sydney Water Award 1994. Finalisation of a consent award is expected between the SCA and the unions.

A review has been conducted of the competency model that covers the production officers in the Bulk Water and Catchment Protection divisions. The review has enabled the SCA to better align the pay model with its operating requirements.

## 8. OUR PEOPLE cont'

Tables 10 and 11 below are derived from a template provided by the NSW Premier's Department – Review and Reform Division and extracts from SCA's workforce profile data obtained by survey.

**TABLE 9: CATEGORIES OF SCA STAFF  
AS AT 30 JUNE 2001**

Category	2000–2001	1999–2000
Chief Executive	1	1
Senior Executives	13 <sup>1</sup>	13
Senior Managers/Specialist	22 <sup>2</sup>	13
Award Staff	165 <sup>3</sup>	128
<b>Total Numbers</b>	<b>201</b>	<b>155</b>
<b>Total FTE Numbers</b>	<b>187.4<sup>3</sup></b>	<b>146.6</b>

<sup>1</sup>Includes 1 Senior Executive woman

<sup>2</sup>Includes 4 Senior Manager/Specialist women

<sup>3</sup>Includes 20 women employees with a full-time equivalent (FTE) of 7.4 employees.

**TABLE 10: STAFF NUMBERS BY LEVEL\***  
As at 30 June 2001

Level	Men	Women	Total staff	Survey respondents	Aboriginal people & Torres Strait Islanders	People from racial, ethnic, ethno-religious minority groups	People whose language first spoken as a child was not English	People with a disability	People with a disability requiring work-related adjustment
< \$26,802	0	0	0	0	0	0	0	0	0
\$26,802 – \$35,202	5	4	9	2	0	0	0	0	0
\$35,203 – \$39,354	5	9	14	11	0	0	0	0	0
\$39,355 – \$49,799	42	26	68	39	1	4	3	5	1
\$49,800 – \$64,400	35	16	51	32	0	6	6	2	0
\$64,401 – \$80,499	10	2	12	10	0	4	4	1	0
> \$80,499 (non-SES*)	29	5	34	16	0	2	1	0	0
> \$80,499 (SES*)	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>126</b>	<b>62</b>	<b>188</b>	<b>110</b>	<b>1</b>	<b>16</b>	<b>14</b>	<b>8</b>	<b>1</b>

\*Excludes casuals and Chief Executive

• The SCA does not employ staff under the Public Sector Management Act

**TABLE 11: STAFF NUMBERS BY EMPLOYMENT BASIS\***  
As at 30 June 2001

Employment basis	Men	Women	Total staff	Survey respondents	Aboriginal people & Torres Strait Islanders	People from racial, ethnic, ethno-religious minority groups	People whose language first spoken as a child was not English	People with a disability	People with a disability requiring work-related adjustment
<b>Permanent</b>									
Full-time	90	44	134	80	1	13	12	7	1
Part-time	0	8	8	5	0	0	0	0	0
<b>Temporary</b>									
Full-time	6	5	11	9	0	1	1	1	0
Part-time	0	0	0	0	0	0	0	0	0
<b>Contract</b>									
SES*	0	0	0	0	0	0	0	0	0
Non SES*	30	5	35	16	0	2	1	0	0
<b>Training positions</b>									
Retained staff	0	0	0	0	0	0	0	0	0
<b>Casual</b>									
Casual	0	12	12	1	0	0	0	0	0
<b>Total</b>	<b>126</b>	<b>74</b>	<b>200</b>	<b>111</b>	<b>1</b>	<b>16</b>	<b>14</b>	<b>8</b>	<b>1</b>

\*Excludes Chief Executive

• The SCA does not employ staff under the Public Sector Management Act



# Detailed Review of Operations

## 8. OUR PEOPLE cont'

### NSW Government Action Plan for Women

The SCA supports the objectives of the NSW Government's Action Plan for Women, which are to:

- reduce violence against women
- promote workplaces that are equitable, safe and responsive to all aspects of women's lives
- maximise the interests of women in microeconomic reform
- promote the interest of women in all aspects of society
- promote access and successful outcomes for women in all parts of the education and training system, and
- improve the health of quality of life of women in NSW.

Specific initiatives supported by the SCA are:

**Flexible Work Practices:** The SCA encourages the adoption of flexible work practices through its human resource policies. A number of women are adopting flexible practices such as part-time work.

**Recruitment and Selection:** The SCA encourages women to apply for positions and ensures equity in its selection processes by including women on all selection panels.

**Spokeswomen's group:** Two spokeswomen were elected during the year to represent the interests of women in the SCA. A senior woman was also appointed as the management liaison with the group.

The Spokeswoman Program has the support of the Chief Executive, who has commended its consultative approach and encouraged organisation-wide participation. Anyone seeking further information on the SCA's Spokeswoman Program or any of the SCA's action plans for women can contact the SCA and ask for the Women's Liaison Officer.

### Ethnic Affairs Priorities Statement

The NSW Government's Ethnic Affairs Action Plan 2000 aims to address barriers that prevent people from various linguistic, cultural, racial, and religious backgrounds from participating fully in the community. The Action Plan requires all NSW Government agencies to prepare an Ethnic Affairs Priorities Statement (EAPS) and report on outcomes in relation to the EAPS.

The SCA has undertaken a number of actions to support and promote cultural diversity in its workplace. The SCA's recruitment policy requires that all applicants be aware of the Principles of Cultural Diversity. Equal Employment Opportunity (EEO) training for all managers and employees was started during the year. The training and awareness sessions included focus on cultural diversity.

As part of educating the community, the SCA placed advertisements focusing on water resource management in the mainstream and ethnic (Arabic) media. The SCA has also been working closely with the local Tharawal Aboriginal Land Council to ensure greater involvement of Aboriginal communities in the SCA's interpretive program. The SCA conducted community surveys that included identifying cultural backgrounds of the users of its recreational facilities and results will be used to design appropriate signage and information material at SCA facilities. The SCA recognises staff with bilingual skills as an asset, and will further investigate ways to employ the language skills of its staff where appropriate.

### Disability Action Plan

The SCA is committed to a fair and just workplace and providing equitable access to its services. The continued implementation of EEO initiatives included EEO Awareness training for all staff and initial work to establish staff EEO profiles through a confidential survey.

The NSW Government Disability Policy Framework identifies a number of priority areas for action by state government agencies. The awareness sessions and survey address the priority areas of staff training and employment in the public sector. Training allows staff to become further aware of diversity issues. Information from the surveys allows the SCA to provide workplace adjustments to assist people with disabilities. The development of the SCA's Disability Action Plan will continue throughout 2001–2002.

## 8. OUR PEOPLE cont'

### 8.2 OCCUPATIONAL HEALTH SAFETY AND REHABILITATION

The SCA has a very positive approach to occupational health, safety and rehabilitation with two very active OHS&R committees working to develop and maintain effective, safe systems of work. In parallel, committee members have also been actively working to improve the safety culture and attitude of all SCA staff and contractors. One of the aims of the SCA is zero lost time injuries.

#### Regular Inspections

Over the year OHS&R committees have worked on developing a program of safety inspections for all SCA workplaces. Programs now exist for regular planned inspections of all areas. The committees are currently working on developing an inspection procedure, and improving the inspection checklists and programs currently in place.

#### OHS&R Audits

Independent accredited safety auditors conducted compliance audits of the SCA's OHS&R system. The audit, in accordance with Australian Standard AS 4801, has now been completed and the SCA will implement the recommendations as part of the safety program.

A similar audit of the Warragamba Dam Auxiliary Spillway Project was completed in accordance with NSW Government guidelines. In addition, 10 formal independent safety reviews have been completed at the spillway project.

#### Health Testing Program

The SCA now has in place a comprehensive health testing program that begins with pre-employment medicals for new employees. In addition, the SCA conducts regular hearing tests, skin cancer checks, herbicide/pesticide screening, and fitness tests (for entry into confined spaces).

The SCA's health and fitness awareness program, which includes health and safety fairs, health testing, and stretching and ergonomics awareness training, also complements this occupational screening program.

### Lost Time Injuries

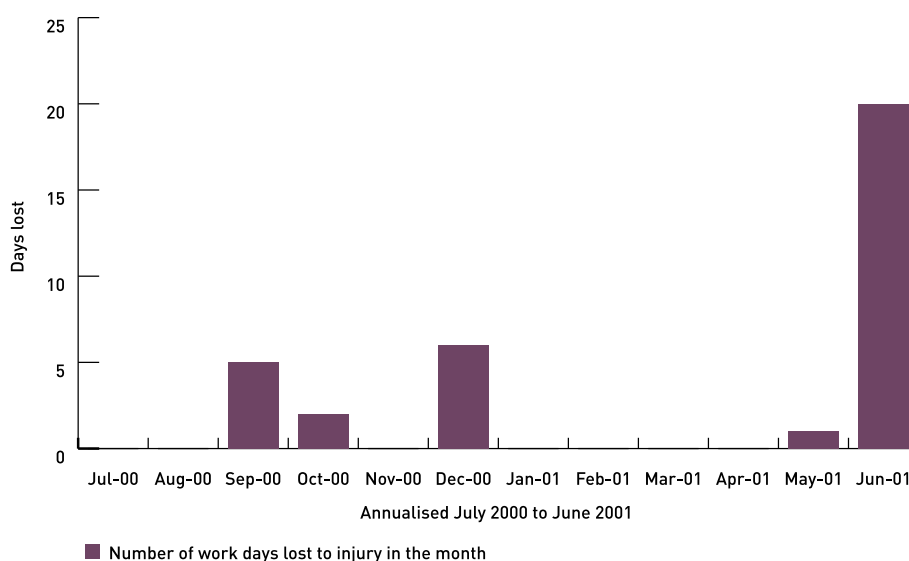
There were five new injuries suffered by SCA employees over the financial year that resulted in lost time. The total number of days lost due to new injuries was 35 resulting in 0.08 per cent loss in working time due to injury (see Figure 4 below). Two injuries were considered serious and resulted in greater than a week off work. One of these involved an employee who suffered injury while on reassignment during the Olympic games, and the other involved an employee who was injured on the way to work in a motor vehicle accident.

### THE YEAR AHEAD

The SCA recognises diversity in its policy and planning processes and will undertake a number of measures in the following year to ensure that operations and management decisions consider the cultural diversity of customers. In particular, it will explore the development of 'Cross Cultural Awareness' training for staff with client contact, and refinement of the Disability Action Plan.

Finalisation of the Authority's Award and consideration of the best way to link individual reward to organisational requirements are additional challenges for the year ahead.

**FIGURE 4: SCA EMPLOYEES DAYS LOST TO INJURY FOR THE PERIOD 1 JULY 2000 – 30 JUNE 2001**







# Detailed Review of Operations

## 9. MANAGING OUR BUSINESS

The SCA is committed to sound business management through integrated business planning and financial management systems.

### OVERVIEW

The SCA recognises the vital role that business systems and financial services play in achieving corporate goals. To this end the organisation has made significant investment in a broad range of business planning and organisational improvement activities during the year.

Fundamental to the SCA's success has been the development of a rigorous business planning framework and a review and upgrade of its financial support systems. The SCA has also committed significant resources to identifying and managing corporate risk.

As a responsible corporate citizen, the SCA is actively implementing key government environmental policies relating to energy management and efficiency and waste management practices.

### 9.1 BUSINESS PLANNING AND BUDGETING

During 2000–2001, the SCA developed a business planning framework. The framework provides for evaluating the nature of the business environment, identifying quantifiable objectives, developing strategies, determining resource requirements, and measuring results. The Business Plan outlines the strategic direction of the SCA.

For 2000–2001, the SCA's vision was to provide quality bulk water through responsible management of the catchments and resources.

The SCA's 2000–2001 Achievements Report documents the SCA's progress in realising the outcomes of the 2000–2001 Business Plan.

#### Revenue and Expenditure

The Business Plan provides a framework for expenditure on programs and strategies for the SCA. The figures opposite (Figures 5–7) provide a comparison of the SCA's revenue and expenditure for 2000–2001 and 1999–2000.

### Outline of Budget for 2001–2002

To succeed in delivering quality bulk water to its customers, the SCA must integrate planning for the delivery of water with planning of catchment protection. Bulk Water and Catchment Protection are two operational divisions within the SCA and are supported by Business Services, Dam Safety and Technical Services, Strategy and Policy, and Finance and Procurement.

Figure 8 indicates the operating budget for the SCA for 2001–2002 by operational area. The total operating budget for the SCA for 2001–2002 is \$72 million.

### Budget review

Total revenue of \$124.8M exceeded the SCA's budget by \$5.5M (or 5 per cent) due in the main to increases in the variable amount of bulk water supplied to Sydney Water Corporation (SWC) and a lower than expected bulk water rebate (higher water quality being consistently supplied), resulting in savings of \$1.3M (or 41 per cent) allowed to SWC. Dam safety consulting services increased by \$0.5M (36 per cent), ancillary services such as rental property income increased by \$0.3M (or 75 per cent) and interest earned increased by \$0.5M (or 32 per cent) on budget.

Total expenditure was lower than budget by \$7.7M (or 9 per cent). The major expenditure items producing savings or favourable variances were in the areas of:

- consultancies – \$1.1M (or 84 per cent) under budget due to staff being recruited during the year, which reduced the need for reliance on consultants
- contractors – \$7.9M (or 22 per cent) under budget due mainly to unseasonal weather patterns being experienced during the year which reduced the need to undertake major fire prevention projects within the catchments. Also, projects such as the aerial photography of the catchments were rescheduled to occur in the 2001–2002 financial year, and
- financing charges – \$2.4M (or 17 per cent) under budget which directly relates to the fact that no additional borrowings were required during the year due to the overall under expenditure.



## 9. MANAGING OUR BUSINESS cont'

FIGURE 5: REVENUE FOR THE PERIOD 1 JULY 2000 TO 30 JUNE 2001

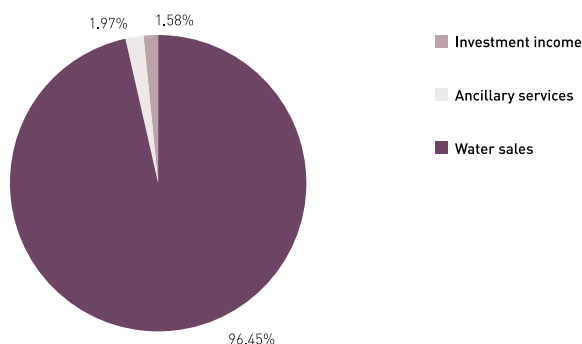


FIGURE 6: REVENUE FOR THE PERIOD 1 JULY 1999 TO 30 JUNE 2000

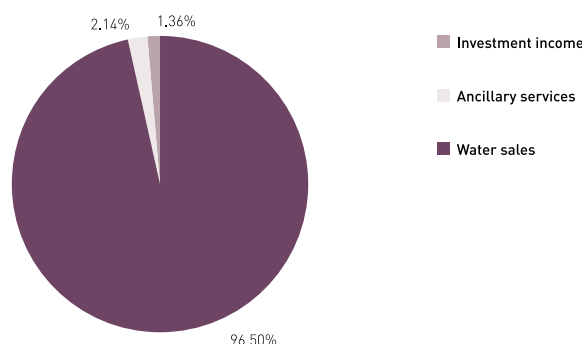


FIGURE 7: COMPARISON OF EXPENDITURE 2000–2001 AND 1999–2000 FINANCIAL YEARS

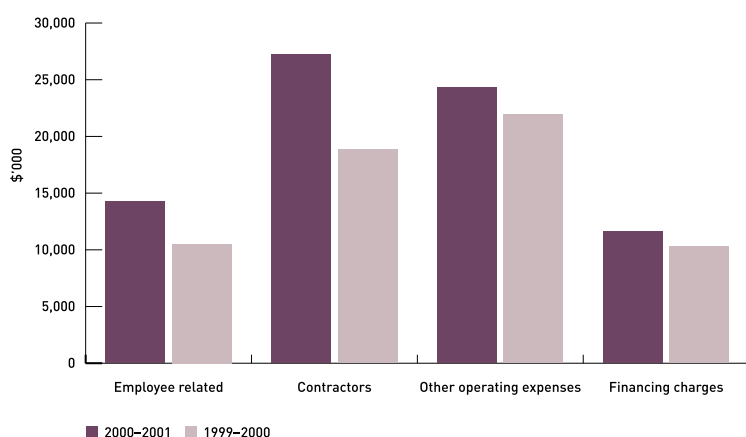
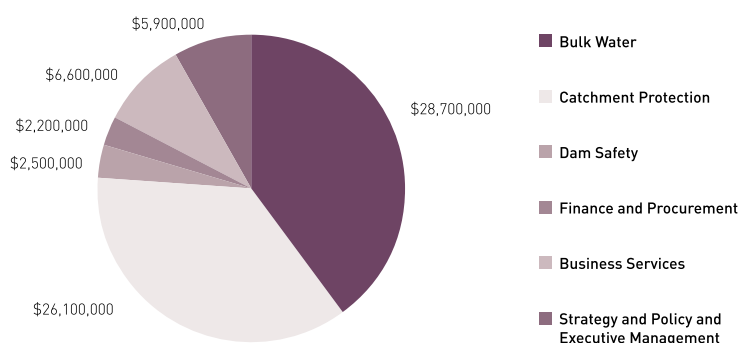


FIGURE 8: OPERATING BUDGET BY AREA FOR 2001–2002



The major unfavourable variances were in the areas of:

- employee related expenditure – \$0.25M (or 2 per cent) over budget with the major variation in expenditure within the Government superannuation defined benefits schemes
- administration expenditure – \$0.15M (or 4 per cent) over budget due to the need to provide higher than expected one-off set-up costs for staff recruited during the year
- management information expenditure – \$1.1M (or 159 per cent) over budget. Given the major role information technology plays within the SCA, the year saw major investment in application software such as SUN financial system, ETHOS contract management system and TRIM record management system. Both SUN and TRIM are Government Selected Application Systems (GSAS) recommended application systems. Such investment is complemented by increases in training and implementation costs
- property expenditure – \$1.2M (or 99 per cent) over budget. The SCA outsourced its property management function during the year and part of the over expenditure directly relates to the increase in use of the training and accommodation facilities at Warragamba, Avon and Cataract Dams. There was also increased expenditure on ground maintenance, and the acquisition of additional floor space at Penrith and Moss Vale, and
- depreciation – \$1.56M (or 24 per cent) over budget due to the completion of the facility asset segmentation project which resulted in a more realistic estimate of the useful lives of facility assets and their segments.

The SCA's earnings before tax were \$13.2M (or 39 per cent) higher than expected which resulted in an unfavourable variance of \$4.8M (or 41 per cent) in income tax expense as part of the government's tax equivalents regime payable to the Office of State Revenue. The dividend payable to the government of \$17.6M was determined within the Statement of Financial Framework dated 30 June 2000.



# Detailed Review of Operations

## 9. MANAGING OUR BUSINESS cont'

### SCA's Credit Rating

The Government Guarantee Fee Policy for government businesses is a component of the NSW Treasury's commercial policy framework designed to improve the financial and economic performance of government businesses. Government businesses with guaranteed debt are required to obtain an annual credit rating. Standard & Poor's assigns this rating for the SCA which is then used by NSW Treasury to determine a guarantee fee payable by the SCA as the cost of the government guaranteeing the SCA's debt. During the past year, the stand-alone rating for the SCA has been upgraded from 'A-' to 'A'.

### 9.2 RISK ASSESSMENT AND MANAGEMENT

#### Insurance Activities

The SCA engaged Heath Lambert Group insurance brokers to arrange and place adequate and appropriate insurance cover in relation to its business risks, assets, and potential liabilities.

The insurance brokers have placed the SCA's insurance coverage with various London, European and American underwriters. No insurance cover is currently available on the Australian market to insure against the failure of the major dams that are owned and controlled by the SCA.

The SCA's insurances were renewed as at 30 April 2001 for the year to 30 April 2002 and provide insurance coverage in relation to:

1. Loss or damage to real or personal property.
2. Combined legal liability for:
  - public liability
  - products liability
  - professional indemnity
  - Directors' and officers' liability and company reimbursement
  - contract works
  - principal controlled liability insurance
  - corporate travel, personal accident and sickness
  - voluntary workers engaged on activities funded by the SCA small grants scheme, and
  - motor vehicle loss or damage.

The SCA's Workers' Compensation Insurance has been placed with QBE Insurance.

### Warragamba Dam Auxiliary Spillway Insurance

Insurance for the construction of the Warragamba Dam Auxiliary Spillway Project is current for the period 1 February 1999 to 1 February 2002 and for a 24 month defects liability period thereafter.

The insurance policies for the Project are for:

- principal controlled liability insurance, and
- contracts works insurance.

### Corporate Risk Management

The SCA has developed a Corporate Risk Management Plan, comprising a risk management policy, a risk management process, a risk register, and treatment plans

The risk management process is in accordance with Australian Standard AS 4360:1999 – Risk Management. The risk register has been developed through a review of major risks undertaken in late 2000, and a review of all risks undertaken in March 2001.

The risk review identified events or activities that could affect the SCA's ability to achieve its objectives. Of the broad hazard events or activities identified, the SCA has prepared risk treatment plans for the most significant. Risk treatment actions have been developed for those risks assessed as medium and have been incorporated into divisional work plans.

### Incident Management

The SCA is committed to developing and maintaining an incident management program that aims to reduce the SCA's vulnerability to specific hazards, identified through the risk management process.

Incidents are managed using the concepts of the Australian Inter-Service Incident Management System (AIIMS) Incident Control System (ICS). Certification is required for staff with a significant role in the incident management process. The SCA conducted incident management awareness sessions for all staff not undertaking the accreditation course.

The Corporate Incident Management Manual is supported by two elements: site and functional specific response and contingency plans, and Standard Operating Procedures (SOPs).

### Olympic Preparedness

Extensive preparation was undertaken to ensure the SCA was able to operate effectively and manage any potential contingencies throughout the Olympics period. Preparation included the formulation of operational policies and plans to ensure that the SCA's regulatory requirements, business needs, and the needs of customers could continue to be fulfilled during both the Olympics and Paralympics. A specific Olympics Contingency Plan was established and tested during joint scenario operations with Sydney Water Corporation.

### 9.3 ENVIRONMENTAL FOCUS

During the year, the SCA publicly exhibited the draft of its first five-year Environment Plan. This Plan has been prepared to:

- meet the SCA's regulatory obligations
- document the SCA's environmental objectives, strategies and targets for the next five years
- implement the SCA's Environment Policy, and
- communicate the SCA's environmental direction to its regulators, stakeholders, customers and the wider community.

The Plan will become effective from the date of Ministerial approval until 30 June 2005.

### Environmental Awareness Training

The SCA recognises the importance of ensuring that all staff understand the environmental responsibilities of the SCA and its employees. During the year it commenced environmental awareness training for all staff. In addition to the general training, targeted training was provided to specialist groups within the SCA.

### Managing Energy Use

Despite being a relatively low level user of energy, the SCA is fully committed to implementing sustainable energy management practices throughout its entire operations and facilities.

In August 2000 the SCA reported for the first time in its own right to the Ministry of Energy and Utilities on its energy consumption under the Government's Energy Management Policy (GEMP). The SCA's energy consumption levels compared favourably against other government organisations.

## 9. MANAGING OUR BUSINESS cont'

The strategies of the SCA's initial Energy Management Policy and Plan, approved by the Board in June 2000, were implemented. Some key achievements during 2000–2001 are listed below.

- Improvements to the energy database, which enable consumption of all types of energy for all facilities to be tracked and monitored, will help target future energy efficiency improvements.  
The database has helped identify several electricity accounts with the potential for transfer to the new contestable electricity market. Negotiations have started to undertake the transfer with the potential for a significant reduction in energy costs for the SCA.
- The SCA instigated an investigation into the potential for carbon sequestration initiatives (eg. establishment of sustainable forestry on SCA catchment land) and any potential impacts on water quality and quantity. A policy will be formulated based on the outcomes of this study.
- An independent firm specialising in energy management was engaged to undertake an energy management review of existing practices, procedures and supply arrangements, and to investigate the potential for efficiency improvement initiatives at several of the larger energy usage sites.
- A more detailed feasibility study into the potential of recovering energy from the SCA's operational water releases, such as mini-hydro generation, was instigated. The options for developing this green power potential will be further evaluated in 2001–2002.

The findings of the above studies and investigations have been incorporated into a revised Energy Management Policy and a new five-year Energy Management Plan 2001–2006. The actions from this plan set the framework for implementing strategies to achieve the SCA's energy management objectives and to address the SCA's Operating Licence energy requirements.

### Managing Waste

The SCA undertook its first waste audit during the year, identifying the waste generated by the SCA as well as waste generated by visitors to its public recreational facilities. In response to these findings, the SCA implemented greater recycling at its offices and directed its purchasing to more environmentally friendly products. The SCA's Waste Reduction and Purchasing Plan outlines the actions the SCA will be taking to further improve its waste management activities.

### 9.4 MANAGING PRIVACY

During 2000–2001 the Sydney Catchment Authority established a working group to develop a Privacy Management Plan for the organisation. A draft plan has been developed and should be operational in the 2001–2002 financial year. The Plan outlines the organisation's obligations in relation to the Privacy and Personal Information Protection Act 1998 and the Sydney Catchment Authority's actions regarding the legislation.

### 9.5 INFORMATION AND TECHNOLOGY

The SCA has continued to expand its information systems and its commitment to using information technology to improve management of its business processes. While the SCA is a relatively new organisation, much of its ageing information technology infrastructure was inherited from Sydney Water. This combined with the SCA's broad geographic coverage has required major resource commitment to meet the demands of a modern organisation.

The SCA's information portfolio now encompasses a diverse range of information related services including:

- a central library established to store the SCA's reference material and to access external information networks
- records management activities expanded to include management of electronic documents and records, and
- existing information technology services significantly upgraded, and new systems including help desk and email filtering introduced to support business objectives.

### 9.6 INTERNAL REVIEWS

The SCA has engaged the services of the Internal Audit Bureau (IAB) to perform the internal audit process for a three-year period commencing in March 2000. During the 2001 financial year, the following areas of operation have been reviewed:

- income, debtors and banking
- the procurement function
- the payroll function
- risk assessment of the information technology environment
- tax compliance, and
- loans and investment.

Recommendations from the Internal Audit Bureau have been responded to by management and considered by the SCA's Chief Executive and the Audit Committee. Senior management are responsible for both the implementation of accepted recommendations and the monitoring of ongoing performance within the relevant work areas to ensure internal control procedures are appropriate and adequate.

The SCA values the work undertaken by the internal auditors and views their recommendations as an essential management tool.

### THE YEAR AHEAD

#### Business Development

Developing business processes to improve organisational efficiency will be pursued through the development and implementation of an Integrated Management System (IMS). The IMS will integrate quality management, OHS&R, and environmental management systems to achieve quality standards, meet regulatory requirements, reduce cost by eliminating duplication in key activities, and continuously improve business services.

#### Records Management

A number of initiatives are planned for the coming year to ensure the SCA's record management systems meet operational business needs, accountability requirements and community expectations. The SCA will develop an electronic document management strategy, conduct staff training, and integrate the records management system with other information resources.

#### Energy Management

The SCA will finalise and adopt its Energy Management Plan for 2001–2006. This plan sets the SCA's framework, strategies and actions to ensure its energy management objectives and initiatives are achieved. The key focus will be on identifying areas where significant energy efficiency improvements can be made and in pursuing opportunities to develop green power.

# Financial Statements

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## STATEMENT OF FINANCIAL PERFORMANCE

FOR THE YEAR ENDED 30 JUNE 2001

	Note	2000-2001 \$'000	1999-2000 \$'000
Revenues from ordinary activities	2	124,848	121,478
Expenses from ordinary activities, excluding borrowing costs expense	3	65,787	51,285
Borrowing costs expense	4	11,625	10,313
<b>Profit from ordinary activities before income tax expense</b>		<b>47,436</b>	<b>59,880</b>
Income tax expense relating to ordinary activities	5(a)	16,451	21,100
Profit from ordinary activities after related income tax expense		30,985	38,780
<b>Total revenues, expenses and valuation adjustments recognised directly in equity</b>		<b>-</b>	<b>-</b>
<b>TOTAL CHANGES IN EQUITY OTHER THAN THOSE RESULTING FROM TRANSACTIONS WITH OWNERS AS OWNERS</b>	21	<b>30,985</b>	<b>38,780</b>

[The accompanying notes form part of these statements]

# SYDNEY CATCHMENT AUTHORITY

## STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2001

	Note	30/6/2001 \$000	30/6/2000 \$000
<b>Current assets</b>			
Cash assets	6	26,722	43,333
Receivables	7	11,997	10,474
Other financial assets	9	1,754	1,864
<b>Total current assets</b>		<b>40,473</b>	<b>55,671</b>
<b>Non current assets</b>			
Property, plant and equipment	10	703,808	678,492
Tax asset		2,011	1,580
<b>Total non current assets</b>		<b>705,819</b>	<b>680,072</b>
<b>TOTAL ASSETS</b>		<b>746,292</b>	<b>735,743</b>
<b>Current liabilities</b>			
Payables	11	27,443	17,972
Interest-bearing liabilities	12(a)	8,517	8,238
Provisions, excluding tax liabilities	13(a)	19,779	12,633
Tax liabilities	5(b)	1,722	21,197
<b>Total current liabilities</b>		<b>57,461</b>	<b>60,040</b>
<b>Non current liabilities</b>			
Interest-bearing liabilities	12(b)	151,782	152,322
Provisions, excluding tax liabilities	13(b)	3,833	3,470
Tax liabilities		5	85
<b>Total non current liabilities</b>		<b>155,620</b>	<b>155,877</b>
<b>TOTAL LIABILITIES</b>		<b>213,081</b>	<b>215,917</b>
<b>NET ASSETS</b>		<b>533,211</b>	<b>519,826</b>
<b>EQUITY</b>			
Contributed Equity	8	491,646	491,646
Retained profits	21	41,565	28,180
<b>TOTAL EQUITY</b>		<b>533,211</b>	<b>519,826</b>

[The accompanying notes form part of these statements]

# SYDNEY CATCHMENT AUTHORITY

## STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 30 JUNE 2001

	Note	2000-2001 \$000	1999-2000 \$000
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Inflows</b>			
Cash receipts Sydney Water Corporation		119,203	106,913
Cash receipts other		8,475	2,462
Interest received		1,971	1,648
		<b>129,649</b>	<b>111,023</b>
<b>Outflows</b>			
Employee related		(13,182)	(10,737)
Operations payments		(42,238)	(23,894)
Income tax		(36,437)	-
		<b>(91,857)</b>	<b>(34,631)</b>
<b>Net cash provided by operating activities</b>	18	<b>37,792</b>	<b>76,392</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
<b>Outflows</b>			
Purchases of property, plant and equipment		(31,827)	(32,676)
<b>Net cash used in investing activities</b>		<b>(31,827)</b>	<b>(32,676)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
<b>Outflows</b>			
Interest and other financing charges		(11,976)	(8,403)
Dividends		(10,600)	-
		<b>(22,576)</b>	<b>(8,403)</b>
<b>Net cash used in financing activities</b>		<b>(22,576)</b>	<b>(8,403)</b>
<b>Net increase/(decrease) in cash held</b>		<b>(16,611)</b>	<b>35,313</b>
Opening cash and cash equivalents		43,333	8,020
<b>CLOSING CASH AND CASH EQUIVALENTS</b>	6	<b>26,722</b>	<b>43,333</b>

[The accompanying notes form part of these statements]



## SYDNEY CATCHMENT AUTHORITY

### NOTES ACCOMPANYING AND FORMING PART OF THE FINANCIAL STATEMENTS FOR THE FINANCIAL PERIOD ENDED 30 JUNE 2001

#### PRINCIPAL ACTIVITIES

Sydney Catchment Authority (the Authority) is a NSW statutory body constituted under the *Sydney Water Catchment Management Act 1998*.

The Act conferred and imposed upon the Authority certain functions with respect to the protection and management of certain catchment areas, with respect to the supply of water to Sydney Water Corporation Limited and other bodies, and with respect to other matters; it made provision for the protection of public health and public safety and for the protection of the environment; it made consequential amendments to the *Water Board (Corporatisation) Act 1994* and certain other acts. It was assented to on 14 December 1998.

The parts of the Act that concerns the setting up of the Authority came into effect on 8 January 1999. The setting up of the Authority was conducted under the auspices of The Cabinet Office and reported in its financial statements for the year 1998-1999 as "Administered Activities".

The operations of the Authority are not considered to have started until the transfer of assets, liabilities and staff from Sydney Water Corporation. This took place on 2 July 1999.

The assets and liabilities transferred to the Authority are disclosed in Note 8.

#### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

##### (a) Reporting Entity

Sydney Catchment Authority is a separate reporting entity. There are no entities under its control.

##### (b) Basis of Accounting

The Authority's financial statements are a general purpose financial report which has been prepared on an accrual basis and in accordance with applicable Australian Accounting Standards, other authoritative pronouncements of the Australian Accounting Standards Board (AASB), Urgent Issues Group (UIG) Consensus Views, and the requirements of the *Public Finance and Audit Act 1983* (as amended) and the *Public Finance and Audit Regulation, 2000*. Where there are inconsistencies between the above requirements, the legislative provisions have prevailed.

In the absence of a specific Accounting Standard, or other authoritative pronouncement of the AASB or UIG Consensus View, the hierarchy of other pronouncements as outlined in AAS 6 "Accounting Policies" is considered.

The financial statements are prepared in accordance with the historical cost convention, except for certain non-current assets that are recorded at transfer written down value from Sydney Water Corporation. All amounts are rounded to the nearest one thousand dollars and are expressed in Australian currency.

##### (c) Employee Entitlements

##### (i) Wages and Salaries, Annual Leave, Sick Leave and On-Costs

Liabilities for wages and salaries and annual leave are recognised and measured as the amount unpaid at the reporting date at current pay rates in respect of employees' services up to that date.

Unused non-vesting sick leave does not give rise to a liability as it is not considered probable that sick leave taken in the future will be greater than the entitlements accrued in the future.

The outstanding amounts of payroll tax, workers' compensation insurance premiums and fringe benefits tax, which are consequential to employment, are recognised as liabilities and expenses where the employee entitlements to which they relate have been recognised.



## (ii) Long Service Leave

Long service leave is measured on a nominal basis. The nominal method is based on the remuneration rates at year end for all employees with five or more years of service. It is considered that this measurement technique produces results not materially different from the estimate determined by using the present value basis of measurement.

## (iii) Superannuation

Calculations in respect of the total liability for superannuation are based on actuarial advice with the exception of the First State Superannuation which is calculated at a percentage of salaries. The superannuation prepayment recorded in the Statement of Financial Position is determined at the difference between the gross liability actuarially calculated and the reserve (ie. amount funded) in the respective defined benefit schemes.

## (d) Insurance

The SCA has engaged the Heath Lambert Group (the Insurance Brokers) to arrange and place adequate and appropriate insurance coverage in relation to the SCA's business risks, assets and potential liabilities. The Insurance Brokers have confirmed that there has been no break in the Authority's insurance cover due to the failure of H.I.H.

The Insurance Brokers have placed the SCA's insurance coverage with various London, European and American Underwriters. No insurance cover is currently available on the Australian market to insure against the failure of the major dams that are owned and controlled by the SCA.

The SCA's insurances were renewed as at 30 April 2001 for the year to 30 April 2002 and provide insurance coverage in relation to the following matters.

- 1 Loss or damage to real or personal property.
- 2 Combined legal liability for:
  - Public Liability.
  - Products Liability.
  - Professional Indemnity.
  - Directors & Officers Liability and Company Reimbursement.
  - Contract Works.
  - Principal Controlled Liability Insurance.
  - Corporate Travel, Personal Accident and Sickness.
  - Voluntary Workers engaged on activities funded by the SCA small grants scheme.
  - Motor vehicle loss or damage.

The SCA's Workers' Compensation Insurance has been placed with QBE Insurance.

Warragamba Dam Auxiliary Spillway Insurance:

Insurance for the construction of the Warragamba Dam Auxiliary Spillway (the project) is current for the period 1 February 1999 to 1 February 2002 and for a twenty-four (24) month defects liability period thereafter.

The insurance policies for the Project are for Principal Controlled Liability Insurance and Contracts Works Insurance.

## (e) Inventories

The Authority has adopted the policy of expensing low value items used in maintenance and the operation of the conference centre at Warragamba Dam. High volume chemicals used in the preliminary treatment of water are also expensed.

**(f) Investments**

Investments comprise funds held with the Treasury Corporation's "Hour-Glass" Facility. All investments are made in accordance with Part 1, Schedule 4, of the *Public Authorities (Financial Arrangements) Act, 1987*. All investments are recorded at the lower of cost and market value. Changes in market value during the reporting period are brought to account in accordance with the Australian Accounting Standard AAS10 "Accounting for Revaluation of Non-Current Assets".

**(g) Property, Plant and Equipment****(i) Acquisition and Capitalisation**

All items of property, plant and equipment acquired are recorded initially at the cost of acquisition. Cost is determined as the fair value of the assets given as consideration plus costs incidental to the acquisition. Items costing \$300 or more individually are capitalised. In the case of network assets, all expenditures are capitalised regardless of cost.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition. Fair value means the amount for which an asset could be exchanged between a knowledgeable, willing buyer and a knowledgeable, willing seller in an arm's length transaction.

In respect of system assets constructed by the Authority, cost includes materials used in construction, direct labour and an appropriate proportion of overheads. These assets are capitalised as completed assets as they become operational and available for use.

**(ii) Asset Valuation**

The assets valued at \$647M were transferred from Sydney Water Corporation to the Authority on 2 July 1999. The value of \$647M was agreed to by PriceWaterHouseCoopers, IPART, and Sydney Water Corporation. The value fell between the historical net book value of \$480M and the revaluation net book value of \$1,653M. The carrying amounts of categories of property, plant and equipment do not exceed recoverable amount. Recoverable amount is determined using relevant cash flows discounted to their present value.

The Authority's asset project involving the determination of asset values on a segmented basis was completed in June 2001. Asset classes and effective lives based on a condition assessment have been identified, and depreciation rates have been based on the effective life of the respective assets.

**(iii) Assets under Construction**

Interest costs on borrowings specifically financing assets under construction are capitalised up to the date of completion of each asset to the extent those costs are recoverable.

**(h) Borrowings**

The Authority borrows through the NSW Treasury Corporation in the form of liquid and marketable TCorp stocks. As part of its debt management activities, the Authority buys back its debt and refinances with NSW Treasury Corporation debt. The gains and losses arising from substituting the prepaid debt with new debt are included in the Statement of Financial Performance (refer Note 4). Discount and premium on loans are in the nature of an adjustment to the cost of borrowing. Any discount or premium is amortised over the term of the loans, with the amount applicable to each year being included in the Statement of Financial Performance as part of the Authority's financing charges for that year. The borrowings amount appearing in the Statement of Financial Position is net of amortisation. Refer Note 12.

### (i) Depreciation of Non-Current Assets

Depreciation is provided for on a straight line basis against all depreciable assets so as to write off the depreciable amount of each asset as it is consumed over its useful life to the Authority.

Depreciation Rates	Life in years
Dams	100 to 150
Reservoirs	75 to 100
Canals & Tunnels	100
Major Pipelines (above ground)	150
Weirs	100
Water Mains	50
System Buildings	40 to 100
Water Pumping Stations	45
Water Treatment Plants	45
Working Plant & Equipment	2 to 14
Operating Equipment	3 to 20
Motor Vehicles	7
Office Equipment	4 to 10
Computer Equipment	5
Office Amenities	7 to 20
Leasehold Improvements	Over the remaining period of the lease or life of the improvements whichever is shorter.

The segmentation of assets project which was completed in June 2001 showed that the depreciation charge for 1999-2000 was understated by \$1.436M. As required by the Australian Accounting Standards, this additional expense will be accounted for over an expected period of benefit, being a 5 year period. Therefore, in this year and in each of the next 4 years, the depreciation charge will include an additional amount of \$0.287M.

### (j) Leased Assets

A distinction is made between finance leases which effectively transfer from the lessor to the lessee substantially all the risks and benefits incidental to ownership of the leased assets, and operating leases under which the lessor effectively retains all such risks and benefits.

Where a non-current asset is acquired by means of a finance lease, the asset is recognised at its fair value at the inception of the lease. The corresponding liability is established at the same amount. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are charged to the Statement of Financial Performance in the periods in which they are incurred.

### (k) Maintenance and Repairs

The costs of maintenance are charged as expenses as incurred except where they relate to the replacement of a component of an asset in which case the costs are capitalised and depreciated.

### l) Financial Instruments

Financial instruments give rise to positions that are financial assets or liabilities (or equity instruments) of either the Authority or its counterparties. These include Cash at Bank, Receivables and Accounts Payable. Classes of instruments are recorded at cost and are carried at net fair value.

#### (i) Cash

Cash comprises cash on hand and bank balances with two commercial banks. Interest has been earned at the prevailing rates.

## (ii) Hour-Glass Investment Facilities

The Authority has investments in TCorp's "Hour-Glass" facilities. The Authority's investments are represented by a number of units of a managed investment pool, with each particular pool having different investment horizons and being comprised of a mix of asset classes appropriate to that investment horizon. TCorp appoints and monitors fund managers and establishes and monitors the application of appropriate investment guidelines.

## (iii) Receivables

All trade debtors are recognised as amounts receivable at balance date. Collectability of trade debtors is reviewed on an ongoing basis. Debts which are known to be uncollectable are written off. A provision for doubtful debts is raised when some doubt as to collection exists. The credit risk is the carrying amount (net of any provision for doubtful debts). No interest is earned on trade debtors. The carrying amount approximates net fair value. Sales are made on 30 day terms.

## (iv) Bank Overdraft

The Authority does not have any bank overdraft.

## (v) Trade Creditors and Accruals

Liabilities are recognised for amounts due to be paid in the future for goods and services received, whether or not invoiced. Amounts owing to suppliers (which are unsecured) are settled in accordance with the policy set out in Treasurer's Direction 219.01. If trade terms are not specified, payment is made no later than the end of the month following the month in which an invoice or a statement is received. Treasurer's Direction 219.01 allows the Minister to award interest for late payment. No interest was paid during the year.

## (vi) Borrowings

The terms of the Authority's borrowings from the New South Wales Treasury Corporation are disclosed at Note 19.

## (m) Revenue Recognition

Revenue is recognised when the Authority has passed control of, or the right to receive the goods to the buyer, and the amount of revenue can be reliably measured.

### (i) Bulk Water Sales and Ancillary Services

Revenue from the sale of bulk water is recognised when the Authority has passed control of the goods to the buyer. Revenue from ancillary services is recognised when there is a valid claim against external parties.

### (ii) Investment income

Interest revenue is recognised as it accrues.

### (iii) Rent Revenue

Rent revenue is recognised in accordance with AAS 17 "Accounting for Leases".

## (n) Taxation

An "equivalent" or "notional income tax" is payable to the NSW Government through the Office of State Revenue. Taxation liability is assessed according to the Tax Equivalent Regime of the NSW Treasury, which proposes as far as practicable the adoption of the *Commonwealth Income Tax Assessment Act 1936* (as amended) as the basis for determining taxation liability and, therefore, the adoption of tax-effect accounting. Refer Note 5.

Income tax expense is calculated on the operating profit adjusted for permanent differences between taxable income and accounting profit. The tax effect of timing differences, which arise from items being brought to account in different periods for income tax and accounting purposes, is carried forward in the Statement of Financial Position as a future income tax benefit or a provision for deferred income tax. Future income tax benefits are not brought to account unless realisation of the asset is certain.

From 1 July 2001, the current State Tax Equivalent Regime will be replaced by a National Tax Equivalent Regime.

**(o) Dividend payable to State Government**

The Dividend payable to State Government is established in the Statement of Financial Framework. The dividend payable to the State Government is negotiated by reference to the after tax earnings of the Authority in the context of the financial health of the Authority and capital expenditure requirements. For the year 2000-2001 the dividend payable to the State Government was negotiated with reference to the after-tax earnings of the Authority and was a set amount of \$17.6M.

**(p) Accounting for Goods and Services Tax**

In relation to the Goods and Services Tax (GST), revenues, expenses and assets are recognised net of an amount of GST incurred by the Authority except where the amount of GST incurred by the Authority as a purchaser is not recoverable from the Australian Taxation Office. In such cases, the GST is recognised as part of the acquisition of an asset or as part of an item of expense. Receivables and payables are stated with the amount of GST included.

**2. REVENUES FROM ORDINARY ACTIVITIES**

**Revenue from Core Activities**

	2000-2001 \$'000	1999-2000 \$'000
Bulk Water Sales to Sydney Water Corporation at Fixed Prices	57,600	57,600
Rebate of operating costs allowed to Sydney Water Corporation	(1,200)	-
Bulk Water Sales to Sydney Water Corporation at Variable Prices	65,332	62,530
Sydney Water Corporation Water Quality Rebate	(1,902)	(3,200)
Other Bulk Water Sales	585	301
	<b>120,415</b>	<b>117,231</b>

**Revenue from Other than Core Operating Activities**

Contracting Out	1,703	1,760
Rental Income	264	393
Conference Centre Hire	191	331
Gross Proceeds from Sale of Non-Current Assets	6	-
Other	298	115
Interest Income	1,971	1,648
	<b>4,433</b>	<b>4,247</b>

**Revenues from ordinary activities**

**124,848      121,478**

**3. EXPENSES FROM ORDINARY ACTIVITIES, EXCLUDING BORROWING COSTS EXPENSE**

	2000-2001 \$'000	1999-2000 \$'000
a) Employee Related Expenses		
Salary and Wages (including recreation leave and redundancies)	12,070	9,687
Superannuation	916	(1,185)
Long Service Leave	321	794
Workers Compensation Insurance	215	402
Payroll and Fringe Benefits Tax	756	809
	<b>14,278</b>	<b>10,507</b>
b) Contractors		
Agency hire of staff	1,519	182
Contractors - AWT*	8,143	10,167
Contractors - NPWS**	2,317	-
Contractors - general	12,325	7,034
Professional services contract	2,897	1,456
	<b>27,201</b>	<b>18,839</b>

\* Australian Water Technologies Pty Ltd

\*\* National Parks and Wildlife Services



### 3. EXPENSES FROM ORDINARY ACTIVITIES, EXCLUDING BORROWING COSTS EXPENSE (Continued)

	2000-2001 \$'000	1999-2000 \$'000
c) Property and Materials		
Repairs and Maintenance - Buildings	749	530
Grounds Maintenance	1,422	1,243
Materials	2,261	1,610
Rent	781	427
Other	787	577
	<b>6,000</b>	<b>4,387</b>
d) Other Operating Expenses		
Advertising	317	71
Auditor's remuneration	126	120
Committee Fees and Expenses	218	21
Consultancies	219	179
Energy	376	277
Equipment	532	800
Grants and sponsorships	348	239
Information management	1,909	701
Insurance	1,323	1,441
Memberships, Associations	508	416
Telephone & Fax	619	525
Transport	1,080	1,174
Other	1,596	2,062
	<b>9,171</b>	<b>8,026</b>
e) Depreciation		
Facility Assets	7,144	6,030
Buildings	108	106
Operational Equipment	61	29
Motor Vehicles	20	7
Office Equipment	22	9
Computer Hardware	49	50
Office Amenities	4	2
Leasehold Improvements	180	-
	<b>7,588</b>	<b>6,233</b>
f) Taxes	-	1,874
g) Licence Fees	1,127	1,419
h) Loss on sale/write off of non-current assets	422	-
<b>Expenses from ordinary activities excluding borrowing costs expense</b>	<b>65,787</b>	<b>51,285</b>

### 4. BORROWING COSTS EXPENSE

	2000-2001 \$'000	1999-2000 \$'000
Interest Expense	11,161	11,026
Amortisation of premium/ discount	(204)	(1,336)
Interest Differential - Government Guarantee Fee	725	733
Other	(57)	(110)
	<b>11,625</b>	<b>10,313</b>

## 5. INCOME TAX

	2000-2001 \$'000	1999-2000 \$'000
a) Income Tax Expense		
Prima Facie Income Tax Expense (34% of profit from ordinary activities)	16,128	21,556
Permanent Differences		
Entertainment	-	3
Non-deductible Fines and Penalties	1	-
Superannuation	171	(671)
Adjust for Change in Tax Rate	151	212
<b>Total Income Tax Expense</b>	<b>16,451</b>	<b>21,100</b>
b) Provision for Income Tax		
Opening Balance of Tax Provision	21,197	-
Income Tax Provided for the Year	16,962	21,197
Payment - Final for 1999-2000	(21,197)	-
Payment - Instalment 2000-2001	(15,240)	-
<b>Provision for Income Tax at Year End</b>	<b>1,722</b>	<b>21,197</b>

## 6. CASH ASSETS

	2000-2001 \$'000	1999-2000 \$'000
Cash	1,797	1,440
TCorp Hour-Glass Facility	24,925	41,893
	<b>26,722</b>	<b>43,333</b>

For the purposes of the Statement of Cash Flows, The Authority considers cash to include cash on hand, cash in banks, Tcorp Hour-Glass and Tcorp investments.

All investments are with the New South Wales Treasury Corporation (TCorp) Hour-Glass Investment Facility. Tcorp provides at-call liquidity and cash management in line with average returns on Bank Bills of up to 90 days maturity. This is achieved by the facility having 80% of its assets invested in short term money market securities and 20% invested in the Hour-Glass Cash Plus Facility.

## 7. RECEIVABLES

	2000-2001 \$'000	1999-2000 \$'000
Trade Debtors	10,883	10,317
Other Debtors	1,114	157
	<b>11,997</b>	<b>10,474</b>

No Provision for Doubtful Debts has been raised as all debts are considered collectable.

## 8. ASSETS AND LIABILITIES TRANSFERRED FROM SYDNEY WATER CORPORATION (SWC)

The *Sydney Water Catchment Management Act 1998* was assented to on 14 December 1998. The Sydney Catchment Authority was constituted on 23 December 1998 following the proclamation of Part 2 of the Act. The setting up of the Authority was over sighted by the Sydney Catchment Authority Task Force, a member of which was the Chief Executive. The task force was facilitated through The Cabinet Office. On 2 July 1999 the Authority commenced full operations. At this date the assets and liabilities referred to in an Order made by the Governor were transferred to the Authority.

Details of items transferred from SWC as from 2 July 1999 were as follows:

	\$'000	\$'000
System Assets, Property and Equipment	619,480	
Work in Progress	27,650	
		647,130
Prepayments (Land Tax)		981
Future Income Tax Benefit (Relating to Provisions for Employee Entitlements)		1,398
Borrowings		(162,000)
Provisions for Employee Entitlements:		
- Annual Leave	(1,207)	
- Long Service Leave	(2,676)	
		(3,883)
Cash:		
- Interim Payment made July 1999	5,535	
- Portion relating to Employee Provisions	2,485	
		8,020
<b>Contributed Equity</b>		<b>491,646</b>

## 9. OTHER FINANCIAL ASSETS

	2000-2001 \$'000	1999-2000 \$'000
Prepaid Superannuation (Note 15)	1,362	1,864
Other	392	-
	<b>1,754</b>	<b>1,864</b>

## 10. PROPERTY PLANT AND EQUIPMENT

	2000-2001 \$'000	1999-2000 \$'000
a) Facility Assets		
Opening balance at cost	488,132	488,132
Assets capitalised	3,896	-
Accumulated depreciation	(13,174)	(6,030)
Assets written off at cost	(449)	-
Accumulated depreciation written back for assets written off	38	-
Net Book Value	478,443	482,102
b) Work in Progress at cost		
Warragamba Dam Spillway Upgrade	85,038	56,794
Warragamba Dam General Upgrade	290	258
Warragamba Pipelines Upgrade	581	439
Blue Mountains System Upgrade	7	263
Metropolitan Dams Upgrade	1,392	2,588
Upper Canal Upgrade	1,406	802
Prospect Reservoir Upgrade	67	488
Shoalhaven System Upgrade	529	1,065
General Upgrades	1,443	2,549
Work in Progress	90,753	65,246



**10. PROPERTY, PLANT AND EQUIPMENT (Continued)**

	2000-2001 \$'000	1999-2000 \$'000
c) Land		
Opening balance at cost	126,137	126,137
Land capitalised	957	-
Net Book Value	127,094	126,137
d) Buildings		
Opening balance at cost	4,766	4,766
Buildings capitalised	88	-
Accumulated depreciation	(214)	(106)
Work in progress (Catchment Upgrades)	88	-
Net Book Value	4,728	4,660
e) Operational Equipment		
Opening balance at cost	234	234
Equipment capitalised	541	-
Accumulated depreciation	(90)	(29)
Assets written off at cost	(21)	-
Accumulated depreciation written back on assets written off	10	-
Work in progress	655	-
Net Book Value	1,329	205
f) Motor Vehicles		
Opening balance at cost	50	50
Motor vehicles capitalised	354	-
Accumulated depreciation	(27)	(7)
Net Book Value	377	43
g) Office Equipment		
Opening balance at cost	28	28
Office Equipment capitalised	225	-
Accumulated depreciation	(31)	(9)
Net Book Value	222	19
h) Computer equipment		
Opening balance at cost	122	122
Computer equipment capitalised	176	-
Accumulated depreciation	(99)	(50)
Net Book Value	199	72
i) Office Amenities		
Opening balance at cost	10	10
Office amenities capitalised	45	-
Accumulated depreciation	(6)	(2)
Net Book Value	49	8
j) Leasehold Improvements		
Opening balance at cost	-	-
Improvements capitalised	794	-
Accumulated depreciation	(180)	-
Net Book Value	614	-
<b>Property, plant and equipment</b>	<b>703,808</b>	<b>678,492</b>

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## 11. PAYABLES

	2000-2001 \$'000	1999-2000 \$'000
Creditors	7,018	39
Accrued charges	20,425	17,933
	<b>27,443</b>	<b>17,972</b>

## 12. INTEREST-BEARING LIABILITIES

	2000-2001 \$'000	1999-2000 \$'000
a) Short term		
Fixed Interest Loans (TCorp)	8,585	8,251
Futures	(68)	(13)
	<b>8,517</b>	<b>8,238</b>
b) Long term		
Fixed Interest Loans (TCorp)	149,364	150,848
Premium/ (discount)	2,418	1,474
	<b>151,782</b>	<b>152,322</b>

## 13. PROVISIONS, EXCLUDING TAX LIABILITIES

	2000-2001 \$'000	1999-2000 \$'000
a) Current		
Provisions for Taxes	235	492
Provisions for Dividend	17,600	10,600
Provision for Employee Entitlements	1,944	1,554
Minor provisions	-	(13)
	<b>19,779</b>	<b>12,633</b>
b) Non Current		
Provision for Employee Entitlements	3,833	3,470
	<b>3,833</b>	<b>3,470</b>

## 14. STATEMENT OF OPERATIONS OF SEGMENTS

The economic entity operates predominantly in the water industry in the one geographical area of New South Wales in Australia. Its area of operations is wholly within New South Wales.

## 15. SUPERANNUATION

The Authority contributes to the following New South Wales Superannuation Schemes:

- The State Authorities Superannuation Scheme (SASS)
- The State Authorities Non-Contributory Superannuation Scheme (SANCS)
- The State Superannuation Scheme (SSS)

The Net (Liability)/Prepaid Superannuation position is as follows:

	SASS	SANCS	SSS	Total
<b>2000-2001</b>				
Contributors	48	81	33	162
Pensioners			3	3
<b>Monetary Value in \$'000</b>				
Accrued Liability	(3,463)	(1,221)	(8,008)	(12,692)
Less Estimated Reserve Account				
Closing Balance as at 30 June 2001	4,757	1,466	7,831	14,054
Prepaid Contributions				
as at 30 June 2001	1,294	245	(177)	1,362

## 15. SUPERANNUATION (Continued)

1999-2000	SASS	SANCS	SSS	Total
Contributors	45	81	37	163
Pensioners			1	1
<b>Monetary Value in \$'000</b>				
Accrued Liability	(2,742)	(1,039)	(6,062)	(9,843)
Less Estimated Reserve Account				
Closing Balance as at 30 June 2000	4,406	1,101	6,200	11,707
Prepaid Contributions				
as at 30 June 2000	1,664	62	138	1,864

The Authority's gross superannuation liabilities for employees as at 30 June 2001 has been calculated by the actuary, William M. Mercer Ltd, using the triennial valuation of the above three schemes. The liability was determined as \$12.692M. The Authority is fully funded as at 30 June 2001. The actuary, William M. Mercer Ltd, working for the Superannuation Administration Corporation (SAC), assessed the gross superannuation liabilities based on the full requirements of AAS25 with the Rate of Investment Return at 7% over the next 3 years, Rate of Salary Increase over the next 3 years of 3.0%, 6.5% and 4.0% respectively, and Rate of Increase in CPI of 2.5% for the next 3 years. Assumptions with regard to rates of mortality, resignation, retirement and other demographics are those used for the 1997-2000 triennial valuation. The assessment is based on membership data as at 28 February 2001.

## 16. COMMITMENTS

### Goods and Services Tax (GST)

All commitments are subject to the Goods and Services Tax (GST) where applicable. The Authority is registered for GST and claims back from the Australian Taxation Office all GST paid on business expenditure as Input Tax Credit. The Authority collects taxes on taxable supplies also where applicable.

### a) Capital Commitments

Capital commitments contracted for at balance date but not provided for:

	2000-2001 \$'000	1999-2000 \$'000
Not later than 1 year	20,616	40,454
Later than 1 year but not later than 5 years	-	14,849
	<u>20,616</u>	<u>55,303</u>

### b) Other Expenditure Commitments

Other expenditure commitments contracted for at balance date but not provided for:

	2000-2001 \$'000	1999-2000 \$'000
Not later than 1 year	4,888	2,374
Later than 1 year but not later than 5 years	-	1,470
	<u>4,888</u>	<u>3,844</u>

### c) Lease commitments

Operating lease expenditure contracted for at balance date but not provided for:

	2000-2001 \$'000	1999-2000 \$'000
Not later than 1 year	1,841	1,481
Later than 1 year but not later than 5 years	3,039	2,621
	<u>4,880</u>	<u>4,102</u>

## 17. CONTINGENT LIABILITIES

Other than commitments mentioned elsewhere in these notes, the Authority is not aware of any contingent liabilities associated with its operations.

### a) Native Title Claim

On Thursday 7 September 2000 a Notice was published in the Sydney Morning Herald advising that a Native Title Claim had been made by the Gundungurra over an area of land which included the Warragamba Dam and Special Areas.

Although the Authority's land in the special areas and over Warragamba Dam is held in freehold title, the status of the land, so far as it relates to the Native Title Claim, is not beyond doubt. This doubt comes from the fact that the Authority, as per section 6(2) of the *Sydney Water Catchment Management Act 1998*, is, for the purpose of any act, a statutory body representing the Crown.

The issue which is required to be addressed so far as the Native Title Claim is concerned, is whether the Authority's land, for the purpose of the Native Title Act, can be classified as Crown Land. The Authority has engaged expert external lawyers to advise on the Authority's exposure in relation to the Native Title Claim.

On 1 February 2001 the Chief Executive of the Authority, signed a Notice of Intention to become a party to a Native Title Determination. The Notice was filed in the Federal Court on 6 February 2001. A direction hearing was held in the Federal Court on 23 February 2001 to consider the future conduct of the matter. The court did not make any decision on the question of who may be joined as a party to the proceedings.

The Authority has been advised that it will be contacted by the Native Title Tribunal to arrange mediation. If, after being involved in mediation, any person or organisation considers that they no longer wish to be involved in the proceedings, they may write to the court to withdraw their application to become a party.

The Gundungurra Native Title Claim is listed for mention in the Federal Court.

### b) The Warragamba Dam Auxiliary Spillway Project

The Sydney Catchment Authority (SCA) is in receipt of a claim from Abigroup Contractors Pty. Limited (Abigroup) that seeks \$13.7 million for alleged breaches of the *Fair Trading Act 1987* and warranty provisions in the contract for the construction of the Warragamba Dam Auxiliary Spillway.

On 24 December 1998 Sydney Water Corporation (Sydney Water) entered into a contract with Abigroup for the design, development and construction of the Warragamba Dam Auxiliary Spillway. This contract was transferred to the SCA from Sydney Water by the operation of an Order made by the Governor dated 30 June 1999. The effect of the Governor's Order was that the SCA would assume all the assets, rights and liabilities relating to this contract.

Abigroup have made a claim against the SCA for an amount of \$13.7 million. The claim is in two parts. The first part alleges a breach of contractual warranty given by Sydney Water. The other part alleges that Sydney Water breached Section 42 of the *Fair Trading Act 1987* in that it engaged in conduct that was misleading or deceptive or was likely to mislead or deceive.

Abigroup claim that the information that it was provided prior to the entering into the contract for the design, development and construction for the Warragamba Dam Auxiliary Spillway was incomplete. The incomplete information is a surface contour plan prepared by the Metropolitan Water, Sewerage and Drainage Board dated 17 June 1948. The plan shows the Folly Creek area of the Warragamba Dam Auxiliary Spillway project prior to the dumping of waste or fill by the original constructors of the Warragamba Dam.

Abigroup claim that the 1948 contour plan shows rock levels in the Folly Creek area to be lower than they were originally led to believe by documentation supporting the Tender documentation. Abigroup claim that they have incurred additional expense, which was not anticipated, for the removal of additional waste or fill to reach solid rock needed to construct the spillway.

The SCA has notified its insurers of the Abigroup claim and the potential for litigation to be commenced against the Authority at an early stage.

## 17. CONTINGENT LIABILITIES (Continued)

### b) The Warragamba Dam Auxiliary Spillway Project (Continued)

The insurers have appointed lawyers and a specialist claims manager to assess the merits and the amount of the Abigroup claim. The Authority is assisting the lawyers and claims manager in undertaking this assessment. The lawyers undertook an inspection of the Warragamba Dam Auxiliary Spillway on Friday, 21 September 2001.

On 3 October 2001 the SCA was served with a Summons commencing proceedings in the Equity Division Construction List of the Supreme Court of New South Wales by Abigroup.

Following receipt of the Summons, the SCA informed the lawyers appointed by the insurers, the SCA's insurance brokers, the Audit Committee and the Minister's Office that the Abigroup claim had been commenced in court.

## 18. RECONCILIATION OF PROFIT FROM ORDINARY ACTIVITIES AFTER INCOME TAX TO NET CASH PROVIDED BY OPERATING ACTIVITIES

	2000-2001 \$'000	1999-2000 \$'000
Operating Surplus after Income Tax	30,985	38,780
<b>Add/(Subtract):</b> Expense items classified as investing or financing activities		
Financing Charges	11,625	10,313
<b>Add</b> non cash items		
Depreciation and assets written off	8,004	6,233
Prepaid Land Tax	-	983
<b>Add/(Subtract):</b> Net Movement applicable to operating activities		
Employee Provisions	1,074	1,633
Payables	7,888	9,571
Receivables	(1,798)	(12,318)
Income Tax	(19,986)	21,197
<b>Net Cash provided by Operating Activities</b>	<b>37,792</b>	<b>76,392</b>

## 19. FINANCIAL INSTRUMENTS

### a) Interest Rate Risk

Interest rate risk is the risk that the value of the financial instrument will fluctuate due to changes in market interest rates. The Sydney Catchment Authority's exposure to interest rate risks and the effective interest rates of financial assets and liabilities, both recognised and unrecognised, at the Statement of Financial Position date are as follows:

#### Financial Year 2000-2001

	Non Interest Bearing \$'000	Floating Rate < 1 year \$'000	Fixed Rate 1-5 years \$'000	Fixed Rate 5-8 years \$'000	Total \$'000	Annualised Client Return
<b>Financial Assets</b>						
Cash	-	1,797	-	-	1,797	4.8%
Treasury Corporation (TCorp)	24,925	-	-	-	24,925	N/A
Receivables	11,997	-	-	-	11,997	N/A
<b>Total Financial Assets</b>	<b>36,922</b>	<b>1,797</b>	<b>-</b>	<b>-</b>	<b>38,719</b>	
<b>Financial Liabilities</b>						
Borrowing (TCorp)	-	8,517	84,276	65,088	157,881	6.83%
Accounts Payable	27,443	-	-	-	27,443	N/A
<b>Total Financial Liabilities</b>	<b>27,443</b>	<b>8,517</b>	<b>84,276</b>	<b>65,088</b>	<b>185,324</b>	

# Financial Statements

## 19. FINANCIAL INSTRUMENTS (Continued)

### a) Interest Rate Risk (Continued)

Financial Year 1999-2000

Financial Assets	Non Interest Bearing \$'000	Floating Rate < 1 year \$'000	Fixed Rate 1-5 years \$'000	Fixed Rate 5-8 years \$'000	Total \$'000	Annualised Client Return
Cash	-	1,440	-	-	1,440	4.8%
Treasury Corporation (TCorp)	41,893	-	-	-	41,893	N/A
Receivables	10,474	-	-	-	10,474	N/A
<b>Total Financial Assets</b>	<b>52,367</b>	<b>1,440</b>	<b>-</b>	<b>-</b>	<b>53,807</b>	
<b>Financial Liabilities</b>						
Borrowing (TCorp)	-	8,238	32,000	118,848	159,086	7.00%
Accounts Payable	17,972	-	-	-	17,972	N/A
<b>Total Financial Liabilities</b>	<b>17,972</b>	<b>8,238</b>	<b>32,000</b>	<b>118,848</b>	<b>177,058</b>	

### b) Credit Risk

Credit risk is the risk of financial loss arising from another party to a contract or financial position failing to discharge a financial obligation thereunder. The Sydney Catchment Authority's maximum exposure to credit risk is represented by the carrying amounts of the financial assets included in the Statement of Financial Position.

	Government \$'000	Other \$'000	Total \$'000
<b>2000-2001</b>			
Receivables	10,160	1,837	11,997
<b>1999-2000</b>			
Receivables	9,533	941	10,474

### c) Net Fair Value

All financial instruments are carried at Net Fair Value, the values of which are reported in the Statement of Financial Position.

### d) Derivatives

The Sydney Catchment Authority uses TCorp as a Debt Portfolio Manager. TCorp uses a small percentage of loans in Derivatives to maximise the portfolio performance.

2000-2001

**Futures Related** Face Value: (\$63,000) Coupon: 5.00%

Futures Position 30 June 2001	Bought/ (sold)	Total value (\$,000)	Per 0.01% Risk \$ Per Contract	Per 0.01% Total Risk \$
90 day bills	3	3,000	(24.07)	(72.21)
3 year bonds	12	1,200	(27.41)	(328.92)
10 year bonds	(2)	(200)	(73.60)	147.20

1999-2000

**Non Interest Bearing** Face Value: (\$17,897) Coupon: 6.05%

**Futures Related**

Futures Position 30 June 2000	Bought/ (sold)	Total value (\$,000)	Per 0.01% Risk \$ Per Contract	Per 0.01% Total Risk \$
90 day bills	-	-	-	-
3 year bonds	2	200	29.77	59.54
10 year bonds	-	-	-	-



## 20. CHANGES IN EQUITY

	2000-2001	1999-2000
	\$'000	\$'000
Balance at the beginning of the financial year (note 8)	519,826	491,646
Total Revenues, Expenses and Valuation Adjustments Recognised		
Directly in Equity	-	-
Surplus for the Year	13,385	28,180
<b>Balance at the end of the financial year</b>	<b>533,211</b>	<b>519,826</b>

## 21. RETAINED PROFITS

	2000-2001	1999-2000
	\$'000	\$'000
Balance at the beginning of the financial year	28,180	-
Profit from ordinary activities after tax	30,985	38,780
	59,165	38,780
Dividend recognised as a liability	(17,600)	(10,600)
<b>Balance at the end of the financial year</b>	<b>41,565</b>	<b>28,180</b>

## 22. OLYMPIC COSTS

The SCA encouraged its staff to actively participate in Australia's hosting of the Olympics Games during September 2000. 27.2 full time equivalent (FTE) staff were directly employed on Olympic initiatives with a total payroll cost including on costs and allowances of \$53,180. 14.6 FTE staff were seconded to the Olympic Roads and Traffic Authority (ORTA) resulting in a total payroll cost including time, on costs and allowances of \$45,426.

## 23. POST BALANCE DATE EVENTS

There were no post balance date events, except as stated elsewhere in this report.

## 24. COMPLIANCE WITH LEGISLATION

During the year under review, the Authority sought clarification from the Crown Solicitor regarding a matter of paying a grant to another government authority. The Crown Solicitor advised that there was an apparent deficiency within the *Sydney Water Catchment Management Act, 1998* covering the Authority's ability to receive and spend money. This deficiency has existed since the establishment of the SCA. Further the advice stated that it was likely that monies received or collected by the SCA in carrying out its functions under the *Sydney Water Catchment Management Act, 1998* are public monies which form part of the Consolidated Fund. This view was based on the view that the SCA represents the Crown and it does not appear to be independent of the executive Government. The advice concluded that it is likely that monies received by the SCA form part of the Consolidated Fund and that the payment under consideration may not be expended unless authorised by an Act of Parliament. Thus the monies collected, held and expended by the SCA to date have occurred without appropriate legislative powers.

As a result of this advice the SCA prepared an amendment to the *Sydney Water Catchment Management Act, 1998* to insert a new Division 5, Financial Provisions, into the Act. The provisions will create the Sydney Catchment Management Fund. As well as continuing to ensure transparent and accountable funding arrangements, the establishment of the Fund will ensure the SCA is unambiguously brought within the operation of section 21 of the *Public Finance and Audit Act 1983*.

The creation of the Fund will clarify the Authority's powers to receive public monies, and out of that Fund, to spend those monies so it can properly fulfil the important responsibilities that have been given to it by the Parliament.

The amendment Bill has been before both Houses of Parliament. On 25 September 2001 the Bill was approved by the NSW Legislative Council with one amendment and has been referred to the Legislative Assembly for further consideration.

(END OF AUDITED FINANCIAL STATEMENTS)



# Board Members' Declaration

In the opinion of the Board Members of Sydney Catchment Authority:

(a) The Financial Statements:

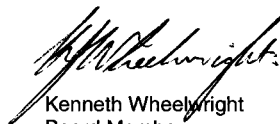
- (i) exhibit a true and fair view of the financial position of the Authority as at 30 June 2001 and of its performance, as represented by the results of its operations and its cash flows for the year ended on that date.
- (ii) comply with applicable Accounting Standards, Urgent Issues Group Consensus Views, the Public Finance and Audit Act 1983 and the associated requirements of the Public Finance and Audit Regulation 2000, the Treasurer's Direction and other mandatory professional and statutory requirements where applicable.

- (b) The undersigned are not aware of any circumstances that would render any particulars in the Financial Statements to be misleading or inaccurate.

Signed in accordance with a resolution of Board Members:



John Whitehouse  
Chairman



Kenneth Wheelwright  
Board Member

Date: 8 October 2001



BOX 12 GPO  
SYDNEY NSW 2001

## INDEPENDENT AUDIT REPORT SYDNEY CATCHMENT AUTHORITY

**To Members of the New South Wales Parliament and Members of the Sydney Catchment Authority**

### Scope

I have audited the accounts of the Sydney Catchment Authority for the year ended 30 June 2001. The members of the Board of the Authority are responsible for the financial report consisting of the statement of financial position, statement of financial performance and statement of cash flows, together with the notes thereto, and the information contained therein. My responsibility is to express an opinion on the financial report to Members of the New South Wales Parliament and members of the Authority based on my audit as required by sections 34 and 41C(1) of the *Public Finance and Audit Act 1983* (the Act).

My audit has been conducted in accordance with the provisions of the Act and Australian Auditing Standards to provide reasonable assurance whether the financial report is free of material misstatement. My procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and the evaluation of accounting policies and significant accounting estimates.

These procedures have been undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with the requirements of the Act, Accounting Standards and other mandatory professional reporting requirements, in Australia, so as to present a view which is consistent with my understanding of the Authority's financial position, the results of its operations and its cash flows.

The audit opinion expressed in this report has been formed on the above basis.

### Audit Opinion

In my opinion, the financial report of the Sydney Catchment Authority complies with section 41B of the Act and presents fairly in accordance with applicable Accounting Standards and other mandatory professional reporting requirements the financial position of the Authority as at 30 June 2001 and the results of its operations and its cash flows for the year then ended.

L I White  
Assistant Auditor-General  
(duly authorised by the Auditor-General of New South Wales  
under section 41C(1A) of the Act)

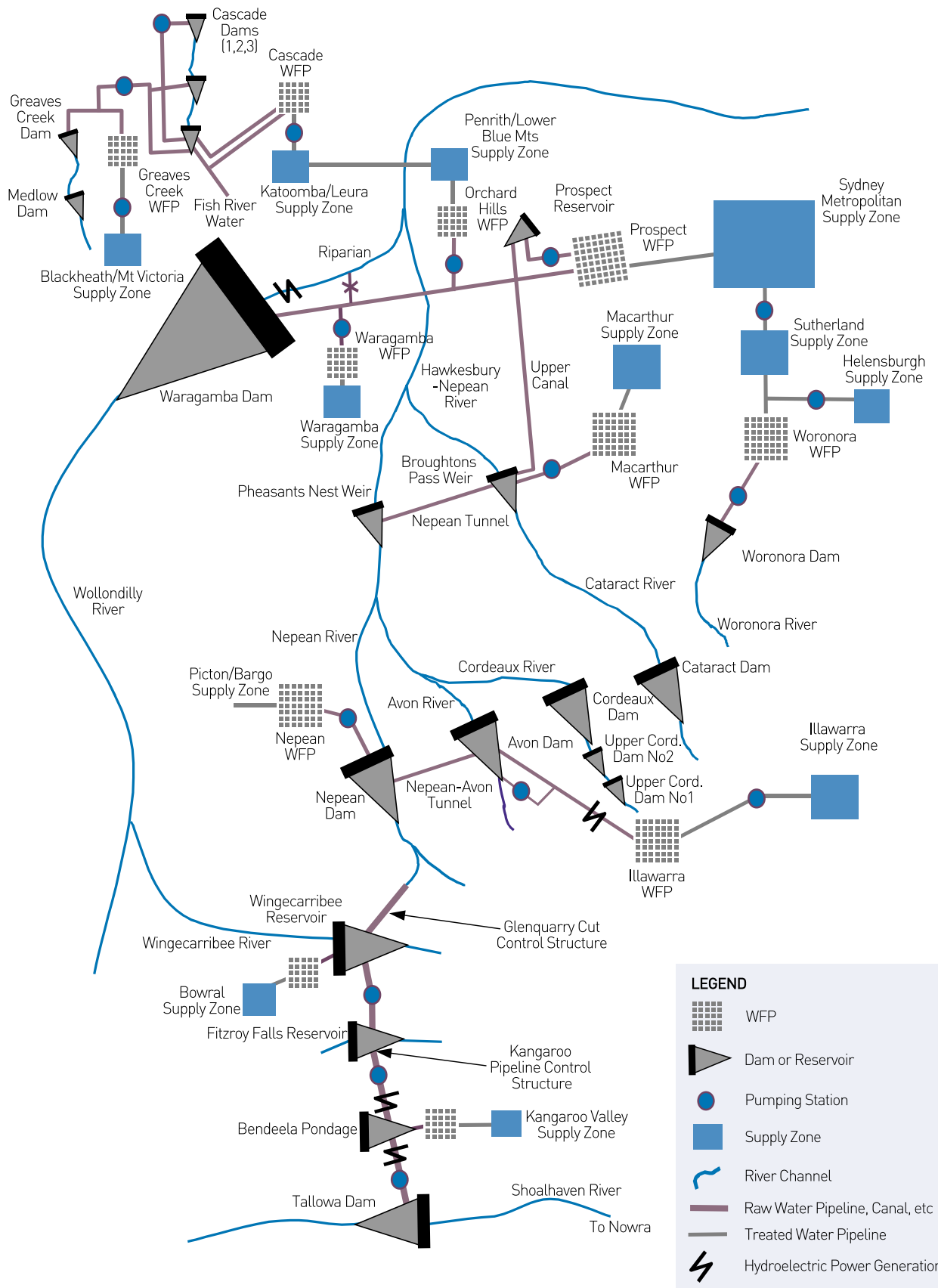
SYDNEY  
17 October 2001

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# Appendices

## APPENDIX 1

### THE WATER SUPPLY SYSTEM



## APPENDIX 2

### WATER QUALITY DATA

1. Quality of water supplied to water filtration plants

Period: 1 July 2000 to 30 June 2001

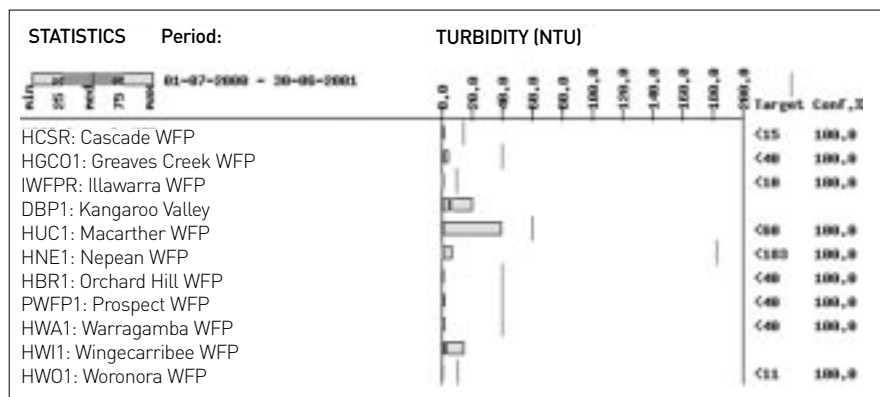
**TABLE 12: WATER QUALITY CONFORMANCE TO BULK WATER SUPPLY AGREEMENT**

Overall conformance 96.1% (Flow weighted average)

	Turbidity	Colour	Iron	Manganese	Aluminium	Hardness	Alkalinity	pH	Temp.	Algae	Overall conformance
Cascade WFP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.3*	100.0	51.7*	93.5*
Greaves Creek WFP	100.0	100.0	100.0	100.0	100.0	80.0*	100.0	100.0	100.0	86.2*	96.6*
Illawarra WFP	100.0	100.0	100.0	100.0	100.0	100.0	96.6*	89.7*	100.0	100.0	98.6*
Macarthur WFP	100.0	100.0	96.6*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7*
Nepean WFP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.6*	99.7*
Orchard Hill WFP	100.0	100.0	100.0	100.0	100.0	90.0*	100.0	100.0	100.0	100.0	99.0*
Prospect WFP	100.0	100.0	100.0	100.0	100.0	70.0*	93.1*	89.7*	100.0	100.0	95.3*
Warragamba WFP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Woronora WFP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

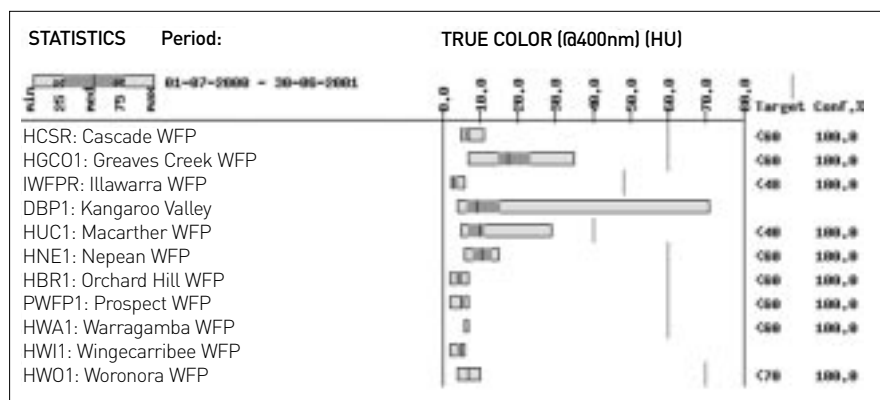
\* Conformance<100%

**FIGURE 9: TURBIDITY**



Turbidity values were within Bulk Water Supply Agreement (BWSA) values.

**FIGURE 10: TRUE COLOUR**

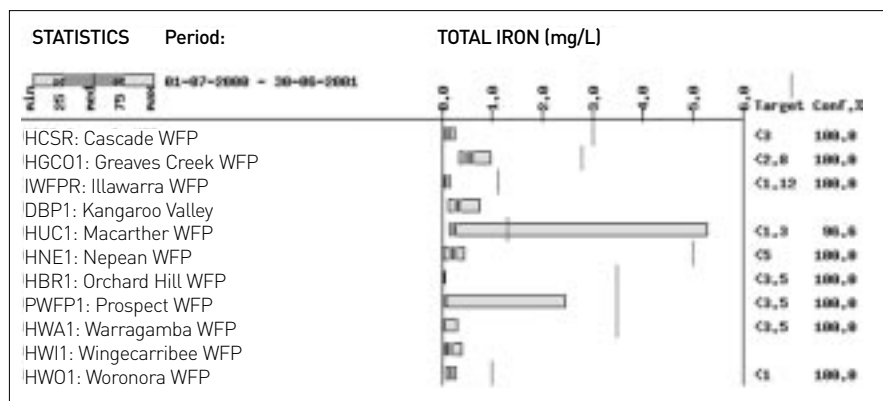


True Colour values were within BWSA values.

# Appendices

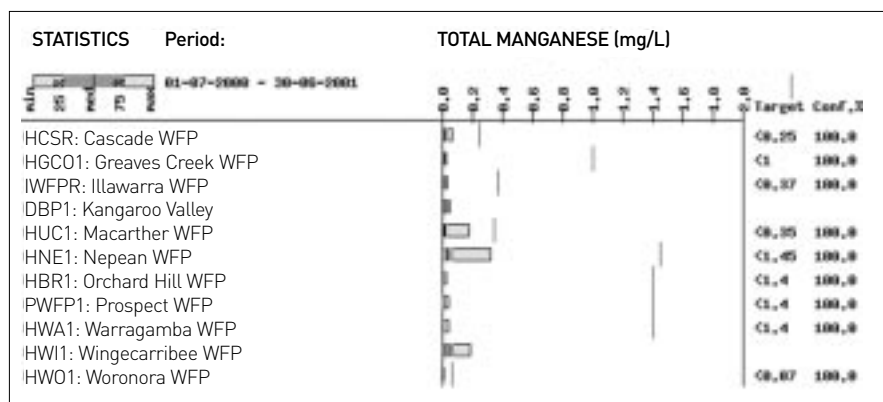
## APPENDIX 2 cont'

FIGURE 11: TOTAL IRON



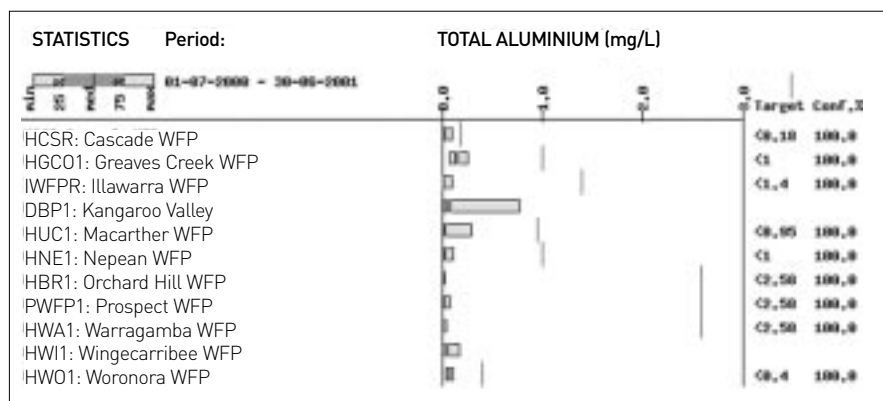
Total Iron values were within BWSA values except at Macarthur WFP

FIGURE 12: TOTAL MANGANESE



Manganese values were within BWSA values.

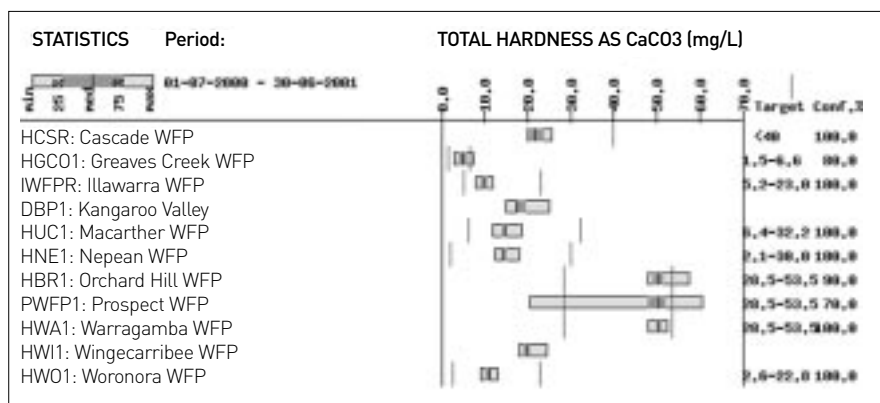
FIGURE 13: TOTAL ALUMINIUM



Aluminium values were within BWSA values.

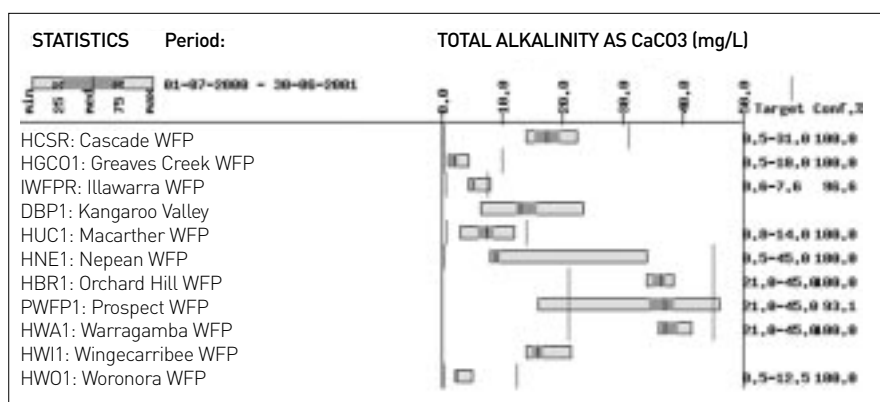
## APPENDIX 2 cont'

FIGURE 14: HARDNESS AS CaCO3



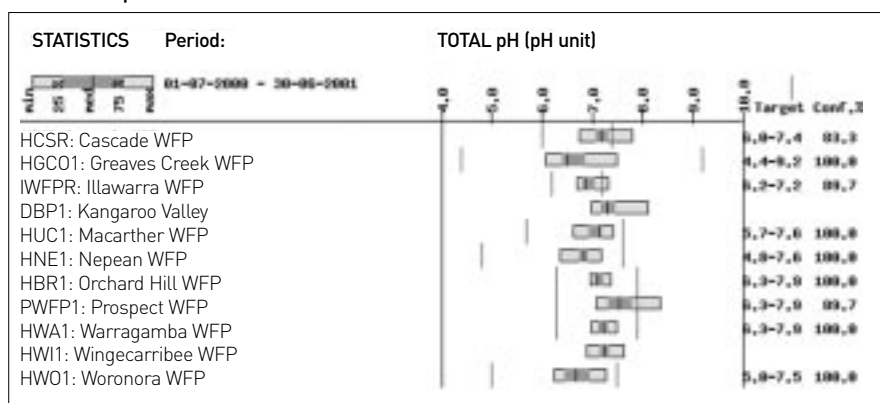
Hardness values were within BWSA values except at Greaves Creek, Orchard Hills and Prospect

FIGURE 15: ALKALINITY AS CaCO3



Alkalinity values were within BWSA values except at Illawarra and Prospect

FIGURE 16: pH

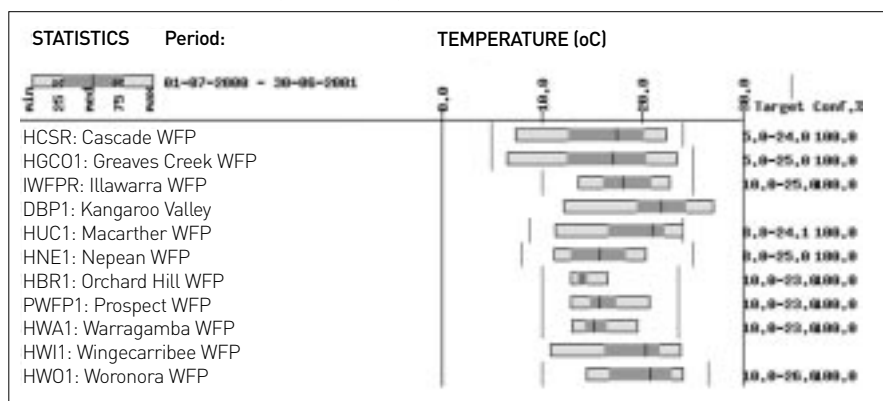


pH values were within BWSA values except at Cascade, Illawarra and Prospect

# Appendices

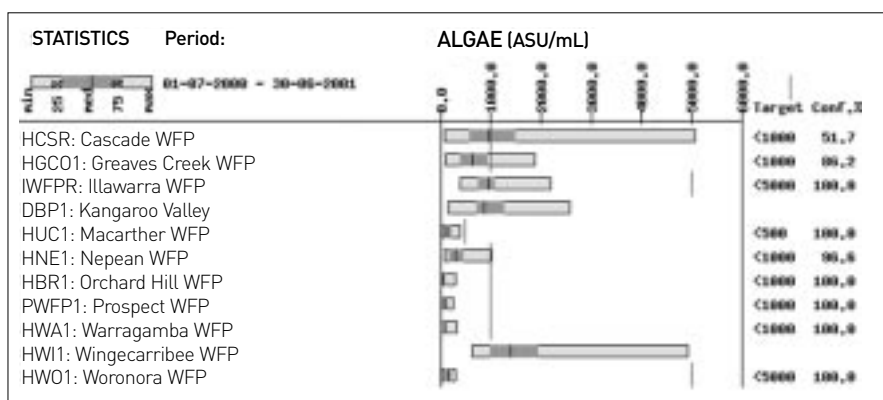
## APPENDIX 2 cont'

FIGURE 17: TEMPERATURE (DEGREES C)



Temperature values were within BWSA values.

FIGURE 18: ALGAE



Algae values were within BWSA values except at Cascade, Greaves Creek, and Nepean.

TABLE 13: WATER QUALITY IN CATCHMENT STREAMS (PERIOD: 1 JULY 2000 TO 30 JUNE 2001)

Table shows median values of the concentrations for the samples collected over this period. (Values exceeded 50 per cent of the time)

System	Location	Dissolved Oxygen Saturation %	Turbidity NTU	Faecal Coliform (CFU/100ml)	Total Phosphorus (mg/l)	Total Nitrogen (mg/l)	Chlorophyll-a (ug/l)
Warragamba	E083 Cocks River @ Kelpie Point	98.6	1.1	6	0.007	0.14	0.3
	E130 Kowmung River @ Cedar Ford	96.0	1.0	7	0.007	0.17	0.5
	E157 Kedumba River @ Maxwells Crossing	89.8*	2.0	20	0.012	0.31	0.5
	E210 Nattai River @ The Causeway	93.4	1.6	7	0.012	0.24	1.1
	E243 Little River @ Fireroad W41	93.9	0.8	5	0.005	0.05	0.2
	E332 Wingecarribee River @ Berrima Weir	83.6*	6.8*	11	0.048*	1.08*	12.0*
	E457 Mulwaree River @ Towers Weir	65.8*	2.5	70	0.112*	1.29*	5.6*
	E488 Wollondilly River @ Fowlers Flat	96.5	1.5	12	0.007	0.35*	0.4
Nepean	E601 Nepean River @ Lake Nepean	92.7	2.2	7	0.008	0.48*	0.4
Shoalhaven	E706 Kangaroo River @ Hampden Bridge	97.2	3.5	260*	0.020	0.34*	0.5
	E822 Mongarlowe River at Mongarlowe	87.6*	1.8	34	0.011	0.13	0.4
	E847 Shoalhaven River @ Fossickers Flat	98.4	2.2	2	0.011	0.21	0.7
	E851 Shoalhaven River @ d/s Tallowa dam	97.6	5.5*	1	0.014	0.36*	1.6

\* Exceeded the guidelines values more than 50% of the time

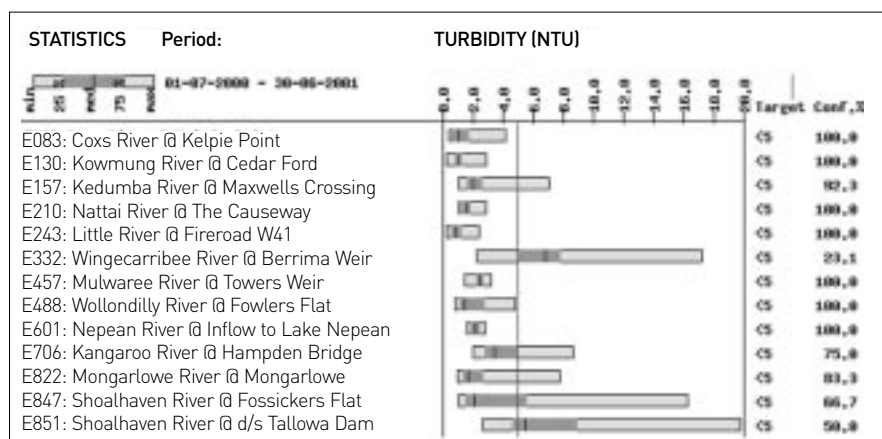
\*\* Water quality parameter should be less than following values for upland rivers under ANZECC 1999 draft guidelines for protection of aquatic system

- Dissolved Oxygen Saturation > 92%
- Turbidity < 5NTU
- Faecal Coliform < 150 CFU/100ml
- Total Phosphorus < 0.035 mg/l
- Total Nitrogen < 0.34 mg/l
- No data available for upland rivers for Chlorophyll-a, but < 2.0 ug/l for lowland rivers



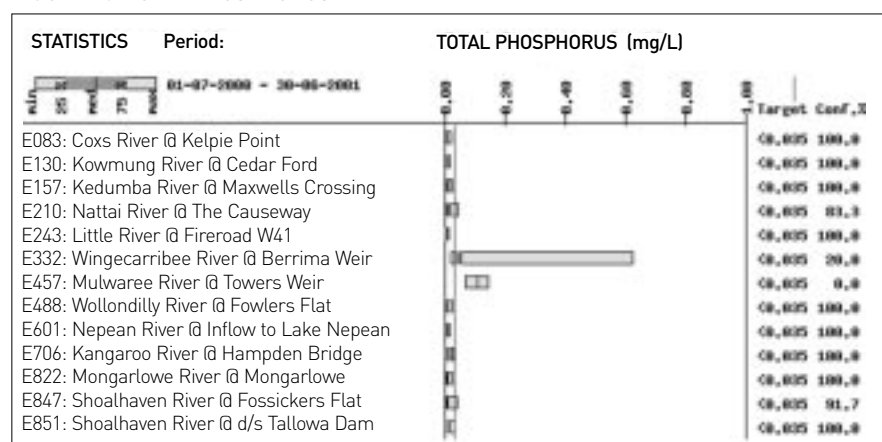
## APPENDIX 2 cont'

FIGURE 19: TURBIDITY



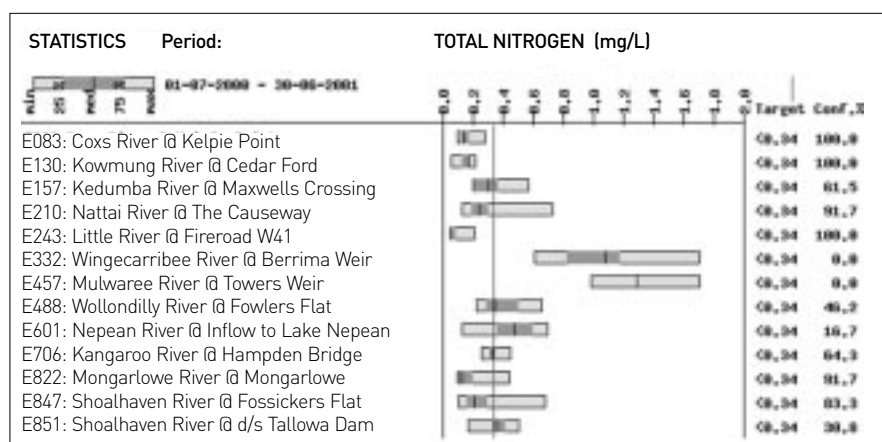
ANZECC guideline is not complied with at Kedumba River, Wingecarribee River, Kangaroo River and Shoalhaven River.

FIGURE 20: TOTAL PHOSPHORUS



ANZECC guideline is not complied with at Mulwaree River (all times), Nattai River, Wingecarribee River and Shoalhaven River upstream dam.

FIGURE 21: TOTAL NITROGEN



ANZECC guideline is not complied with at all locations except at Little River, Coxs River and Kowmung River.



# Appendices

## APPENDIX 2 cont'

**TABLE 14: MEDIAN WATER QUALITY PARAMETERS IN STORAGES (PERIOD: 1 JULY 2000 TO 30 JUNE 2001)**

Station No.	Station name	Number of samples	Turbidity (NTU)	Number of samples	Chlorophyll-a (g/L)
DAV7	Avon @ upper Avon Valve House	32	1.20	13	4.90
DCA1	Cataract @ 30m from Dam Wall	19	1.20	13	3.90
DC01	Cordeaux @ Dam Wall	24	1.38	12	5.45
DFF6	Fitzroy Falls @ Mid Lake	13	2.58	13	5.70
DGC1	Greaves @ Dam Wall	15	1.59	13	2.20
DLC1	Lower Cascade @ 25m U/S	14	1.46	13	2.30
DNE2	Nepean @ 200m from Dam Wall	24	1.47	12	3.00
DTA1	Tallowa @ Dam Wall	20	3.99	14	3.25
DTC1	Upper Cascade @ 20m U/S	14	1.66	13	6.80
DWA2	Warragamba @ Dam Wall	75	0.74	125	2.50
DWI1	Wingecarribee @ Dam Wall	11	2.28	12	5.65
DW01	Woronora @ Dam Wall	22	1.12	13	1.00
RPR1	Prospect @ Supernatant Discharge	18	1.51	84	2.65

Mean Turbidity should be less than 4.5 NTU for fresh water lakes and reservoirs under ANZECC 1999 draft guidelines for protection of aquatic system

Mean Chlorophyll-a levels should be less than 9.0 ug/l for fresh water lakes and reservoirs under ANZECC draft 1999 guidelines for protection of aquatic system

**TABLE 15: *CRYPTOSPORIDIUM* AND *GIARDIA* IN LAKES AND BULK SUPPLY (PERIOD: 1 JULY 2000 TO 30 JUNE 2001)**

Site	No. of samples tested	High*		Number of DAPI positive results		Low*	
		Crypto	Giardia	Crypto	Giardia	Crypto	Giardia
Lake Burragorang – DWA2	532	0	0	0	0	0	0
Upper Canal (near Prospect)- HPR1	10	0	0	0	0	0	0
Blue Mountains System – COMP6	116	0	0	0	0	1	0
Wingecarribee Reservoir – DWI1	43	0	0	0	0	0	0
Broughtons Pass – HUC1	272	0	0	0	0	0	0
Prospect WFP – (COMP1,COMP3,COMP7)	330	0	0	0	0	0	1
Illawarra System – COMP5	114	0	0	0	0	0	0
Lake Prospect @ supernatant -RPR1	89	0	0	0	0	0	1
Lake Prospect @ Midlake - RPR3	90	0	0	0	0	2	1
<b>Total</b>	<b>1597</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>

\* High > 1000 cysts or oocysts per 100 L of sample

Medium > 100 <1000 cysts or oocysts per 100 L of sample

Low < 100 cysts or oocysts per 100 L of sample

## APPENDIX 3

### FREEDOM OF INFORMATION

#### Freedom of Information Act 1989 Section 14(1b) and (3)

The SCA received two requests for access to documents under the Freedom of Information Act 1989.

The first request related to the salary and bonuses paid to the Chief Executive and the SCA's Senior Managers. Information responding to this request, which was made of most government agencies, was released on behalf of the whole public sector in September 2000.

The other request was received from Blacktown Council who sought, and was granted, approval to release a letter written by the SCA to the council. The application and request were determined within 21 days of receipt. No internal review was sought. Application fee collected \$30.

The most recent Summary of Affairs, approved for publication by the SCA's responsible Minister, is published in this Appendix.

Access to documents held by the SCA covering details of properties disposed of during the reporting year may be made under the Freedom of Information Act 1989.

The SCA did not dispose of any land during this reporting year (Refer to Appendix 12).

## APPENDIX 4

### SUMMARY OF AFFAIRS OF THE SYDNEY CATCHMENT AUTHORITY

#### 1. Policy Documents

The SCA holds the following documents that may be accessed for information.

Facility Centre and Conference Accommodation  
Occupational Health and Safety Rehabilitation Policy  
Occupational Health and Safety Rehabilitation Procedures  
Human Resources Policies and Procedures  
Study Assistance Program  
How to Report Unethical Conduct  
Attendance at External Conferences  
Working from Home Policy  
Christmas Party Policy  
Performance Management System  
Code of Conduct  
Recruitment Policy  
Equity and Diversity and Work and Family Policies  
Conditions of Employment  
Pay Policies  
Grievance Resolution, Dispute Settlement and Disciplinary Policy and Procedures  
Information Technology and Records Management Policy and Procedures on Information Security  
Access to Public Information  
Access to Published Information  
Electronic Mail  
Information Technology Standards  
Remote Computing  
Remote Access  
Internet  
Mail Management  
Records Security  
Records Retention  
Records Disposal  
Records Management  
Customer Complaints Policy and Procedure  
Energy Management Policy  
Corporate Incident Management Manual  
Interim Media Relations Policy  
Uniforms and Protective Clothing Policy  
Telephone Protocol Policy  
Mobile Phones Policy  
Parking of Motor Vehicles Policy  
Environment Policy

#### 2. Statement of Affairs

The SCA's initial Statement of Affairs was published on 29 December 2000 in the Gazette and placed on the SCA's Website.

The Statement of Affairs provides information on the:

- structure and function of the SCA
- description of the ways in which the functions of the SCA affect members of the public
- manner in which the public can participate in the formation of the SCA's policy and the exercise of the SCA's functions
- description of the various types of documents usually held by the SCA, and
- procedural arrangements for public access to the SCA's documents and for the amendment of the SCA's records concerning the personal affairs of a member of the public.

#### 3. Contact Arrangements

All applications for access to documents in the possession of the SCA (other than policy documents) must be in writing and should be accompanied by an application fee of \$30 (GST not applicable) and marked to the attention of the "FOI Coordinator". Where additional charges may be levied to satisfy an FOI inquiry, these charges are subject to 10 per cent GST.

The application should be addressed to:

The Chief Executive  
Sydney Catchment Authority  
PO Box 323  
Penrith NSW 2751

Access to policy documents, unless otherwise stated, are free of charge and access can be arranged by contacting the FOI Coordinator on telephone number (02) 4725 2101, facsimile (02) 4725 2520 or in person at the address below between the hours of 8.30am and 5.00pm, Monday to Friday.

Sydney Catchment Authority  
Level 2, 311 High Street  
Penrith NSW 2750

## APPENDIX 5

### SCHEDULE OF CHARGES

#### SCHEDULE OF CHARGES FOR REGULATED WATER SERVICES 2000–2001 AND 2001–2002

**TABLE 16: SCA PRICING SCHEDULE\* 2000–2001**

	Charge
<b>Sydney Water Corporation</b>	
Fixed availability charge per month	\$4.8M
Volumetric charge per Megalitre	\$104
<b>Wingecarribee Shire Council</b>	
Volumetric charge per Megalitre	\$60
<b>Shoalhaven City Council</b>	
<b>Kangaroo Valley</b>	
Volumetric charge per Megalitre	\$60
<b>Tallowa Dam</b>	
Volumetric charge per Megalitre	\$60
<b>Raw Water</b>	
Volumetric charge per Kilotitre	\$0.44
<b>Unfiltered water</b>	
<b>Fixed charge per annum</b>	<b>Charge</b>
20mm	\$75.00
25mm	\$117.20
30mm	\$168.75
32mm	\$192.00
40mm	\$300.00
50mm	\$468.75
80mm	\$1,200.00
100mm	\$1,875.00
150mm	\$4,218.75
200mm	\$7,500.00
>200mm (nominal diameter) <sup>2</sup> x 75/400	
Volumetric charge per Kilotitre	\$0.73

\*The supply of water is GST free  
These prices conform to the IPART determination

#### SCHEDULE OF SCA CHARGES FOR REGULATED WATER SERVICES 2001–2002

In September 2000 IPART determined a Medium Term Price Path for the regulated water services provided by the SCA for the period 1 October 2000 to 30 June 2005.

The determination provided for increases in certain charges to be linked to movements in the Consumer Price Index (CPI), net of any component attributable to the GST. The Tribunal has informed the SCA that the CPI movement to be used for adjusting prices for 2001–2002 is 2.9 per cent. The SCA will be applying increased charges reflecting this movement effective from 1 July 2001.

The prices and charges to be used by the SCA for the 2001–2002 financial year are listed in the Schedule set out below. These prices conform to the IPART determination.

**TABLE 17: SCA PRICING SCHEDULE\* 2001–2002**

	Price movement	Charge
<b>Sydney Water Corporation</b>		
Fixed availability charge per month	CPI	\$4.939M
Volumetric charge per Megalitre	CPI	\$107
<b>Wingecarribee Shire Council</b>		
Volumetric charge per Megalitre	CPI	\$70
<b>Shoalhaven City Council</b>		
<b>Kangaroo Valley</b>		
Volumetric charge per Megalitre	CPI	\$70
<b>Tallowa Dam</b>		
Volumetric charge per Megalitre	CPI	\$70
<b>Raw water</b>		
Volumetric charge per Kilotitre	No change	\$0.44

**TABLE 18: UNFILTERED WATER\* FIXED CHARGES**

#### UNFILTERED WATER

Fixed charge per annum	Price movement	Charge
20mm	No change	\$75.00
25mm	No change	\$117.20
30mm	No change	\$168.75
32mm	No change	\$192.00
40mm	No change	\$300.00
50mm	No change	\$468.75
80mm	No change	\$1,200.00
100mm	No change	\$1,875.00
150mm	No change	\$4,218.75
200mm	No change	\$7,500.00
>200mm (nominal diameter) <sup>2</sup> x 75/400		
Volumetric charge per Kilotitre	CPI -2%	\$0.737

#### SCHEDULE OF SCA CHARGES FOR CONFERENCE CENTRES AND HOLIDAY COTTAGES 2001–2002

The SCA provides conference facilities at Warragamba and Cataract Dams which are used by the private and public sectors on a "user pays" basis and subject to strict policy guidelines. These centres include accommodation facilities that, together with the cottage located at Avon Dam, are available for holiday letting on weekends and during the week on a "first-come, first-served" basis. Accommodation varies from motel type units to self-contained cottages. Prices are charged at market rates according to the type of package selected. All prices are GST inclusive.

Further information is available from the Warragamba Conference Centre, telephone 02) 47744200 or fax 02) 47741793.

## APPENDIX 6

TABLE 19: MAJOR ASSET CATEGORIES

	System assets	Land	Buildings	Working equipment	Motor vehicles	Office equipment	Computer equipment	Office amenities	Leasehold imps.	Work in progress	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>2000–2001</b>											
Carrying amount at start of year	482,102	126,137	4,660	205	43	19	72	8	–	65,246	678,492
Additions	3,896	957	88	541	354	225	176	45	794	26,250	33,326
Disposals	(449)	–	–	(21)	–	–	–	–	–	–	(470)
Depn adj. on disposed assets	38	–	–	10	–	–	–	–	–	–	48
Depreciation expense	(7,144)	–	(108)	(61)	(20)	(22)	(49)	(4)	(180)	–	(7,588)
<b>Carrying amount at end of year</b>	<b>478,443</b>	<b>127,094</b>	<b>4,640</b>	<b>674</b>	<b>377</b>	<b>222</b>	<b>199</b>	<b>49</b>	<b>614</b>	<b>91,496</b>	<b>703,808</b>
<b>1999–2000</b>											
Carrying amount at start of year	–	–	–	–	–	–	–	–	–	–	–
At tfr – Book value from Sydney Water	488,132	126,137	4,766	234	50	28	122	10	–	27,650	647,129
Additions	–	–	–	–	–	–	–	–	–	37,596	37,596
Disposals	–	–	–	–	–	–	–	–	–	–	–
Depn adj. on disposed assets	–	–	–	–	–	–	–	–	–	–	–
Depreciation expense	(6,030)	–	(106)	(29)	(7)	(9)	(50)	(2)	–	–	(6,233)
<b>Carrying amount at end of year</b>	<b>482,102</b>	<b>126,137</b>	<b>4,660</b>	<b>205</b>	<b>43</b>	<b>19</b>	<b>72</b>	<b>8</b>	<b>–</b>	<b>65,246</b>	<b>678,492</b>

# Appendices

## APPENDIX 7

### OVERSEAS VISITS BY SCA STAFF

Name:	Brian Simmons
Division:	Bulk Water
Date:	5–9 November 2000
Destination:	Chiang Mai, Thailand
Conference:	12th International Water Association, Asia–Pacific Regional Conference
Name:	Adrian Williams
Division:	Dam Safety and Technical Services
Date:	12–30 September, 2000
Destination:	Beijing, China
Conference:	International Conference on Large Dams
Name:	Paul Shanahan
Division:	Catchment Protection
Date:	27 January – 11 February 2001
Destination:	Savanna, Georgia, USA
Conference:	Source Water Protection Committee, American Water Works Association

## APPENDIX 8

### SCA STAFF ABOVE SES LEVEL 5

The SCA had two staff members above SES level 5. Details are set out below.

#### Performance Statement: Chief Executive Officer

Name:	Jeff Wright
Position:	Chief Executive Officer, Sydney Catchment Authority CES Level 6 equivalent
Period:	1 July 2000 to 30 June 2001
Total Remuneration:	\$210,161

#### Results

During the year the Sydney Catchment Authority put in place key initiatives including sewerage improvements through direct support to local councils, and an agreement to accelerate sewerage infrastructure upgrades within the water supply catchments.

#### Other highlights during the year included:

- finalising the Special Areas Strategic Plan of Management and the Wingecarribee Swamp and Special Area Plan of Management with the National Parks and Wildlife Service
- releasing the Pollution Source Risk Management Plan
- helping to develop the draft Regional Environment Plan for the catchment areas as required by section 53 of the Sydney Water Catchment Management Act 1998
- finalising the Authority's Environmental and Ecologically Sustainable Development indicators on the ecological health of the catchment area, and
- implementing Water Management Licence requirements regarding environmental flow releases from Warragamba, Cataract, Nepean, Cordeaux, Wingecarribee, Avon and Woronora Dams and the Pheasants nest and Broughtons Pass Weirs.

#### Performance Statement:

#### General Manager, Dam Safety and Technical Services

Name:	Adrian Williams
Position:	General Manager, Dam Safety and Technical Services
SES:	SES Level 5 equivalent
Period:	1 July 2000 to 8 December 2000
Total Remuneration:	\$154,000 (annualised)
No performance agreement review was conducted for Mr Williams.	

## APPENDIX 9

### OFFICERS AS MEMBERS OF SIGNIFICANT STATUTORY BODIES AND COMMITTEES

#### Jeff Wright

Board member, Water Services Association of Australia

Director, Water Research Foundation

Committee member – Hawkesbury Nepean River Management Forum

#### Amir Deen

Committee member – NSW Dams Safety Committee – Hydrology

Committee member – Integrated Water Management Forum

#### Ian Landon-Jones

Committee member – NSW Dams Safety Committee

Committee member – Australian National Committee on Large Dams Risk Guidelines

#### Daniel Deere

Committee members – Interdepartmental Committee on Effluent Management & Reuse Policy

#### David Snape

Asset Management Roundtable

#### Paul Shanahan

Board member – Cooperative Research Centre for Freshwater Ecology

Board member – Cooperative Research Centre for Water Quality and Treatment

Committee member – American Waterworks Association Source Water Protection Committee

Committee member – State Water Monitoring Coordinating Committee

#### Malcolm Hughes, Simone Greenaway

Committee members – Pollution Offset Scheme Working Group

#### Tony Paull

Committee member – Interdepartmental Riverine Corridor Committee

Committee member – Shoalhaven-Illawarra Water Management Committee

#### Ian Tanner

Committee member – State Algal Coordinating Committee

#### Rhonda Wheatley

Committee member – CPA Australia, Public Sector Committee

## APPENDIX 10

### CONSULTANTS ENGAGED BY THE SCA IN 2000–2001

#### Consultant Engagement over \$30K

Hassall & Associates

#### Project Description

Financial evaluation of land use options for Welcome Reef lands

#### Expenditure

\$47,882

#### Consultant Engagement under \$30K

Number: 26

#### Expenditure

\$171,179

**TOTAL: \$219,061**

## APPENDIX 11

### SCA EMPLOYEE CODE OF CONDUCT

Two amendments were made to the SCA Employee Code of Conduct, as published in the 1999–2000 Annual Report. These changes are highlighted below.

#### Respect for People

*This includes respect for the privacy rights of individuals when dealing with personal information.*

#### Protecting Information

We must not use any confidential or personal information about the SCA or its stakeholders for our personal benefit or of anyone else's personal benefit. If you are not sure if information is confidential or personal, you should ask your manager.

*The NSW Privacy and Personal Information Protection Act 1998 introduced a set of privacy standards or principles that regulates the way we must deal with personal information, that is, any information that relates to an identifiable person.*

*The Act provides enforceable rights to individuals. The Information Protection Principles cover such matters as collection, storage, use and disclosure of personal information. Details of the Principles including our obligations are contained in the SCA's Privacy Management Plan.*

## APPENDIX 12

### DISPOSAL OF ASSETS

Disposal of Assets: \$416,000 NET

Refer to Appendix 6, Table 19: Major Asset categories.

## APPENDIX 13

### COST OF ANNUAL REPORT

The SCA's 2000–2001 Annual Report cost an average of \$19.55 (excludes GST) per copy. 2,000 copies were printed.

## APPENDIX 14

### GUARANTEE OF SERVICE

#### Bulk Water Agreement

Section 22 of the Sydney Water Catchment Management Act 1998 requires the SCA and Sydney Water Corporation to enter into an agreement for the supply of water by the SCA to Sydney Water.

The agreement specifies water quantity and quality criteria for each supply point, undertakings by the parties to exchange information, billing and payment arrangements, as well as charges and adjustments to charges for the supply of water varying in quality from that specified in the agreement.





# Appendices

## APPENDIX 15

### PAYMENT PERFORMANCE SUMMARY

The SCA moved from having its accounts managed by the Government's Central Corporate Services Unit in the 2000 financial year, to independently managing the function in-house in the 2001 financial year. In view of the different financial systems used by each agency, comparative data is not able to be produced regarding payment performance for the SCA's first two years of operation.

Payment terms are 30 days from the date of invoice, unless otherwise stated and agreed with the SCA. In regard to contract payments, terms are 28 days from the date of invoice unless otherwise stated within the contract. Contract payment terms are also affected by the satisfactory completion of stated contract requirements, which may see some invoice values reduced in accordance with contractual terms.

The SCA is developing a mechanism to report payment performance in accordance with the above criteria for inclusion in the 2002 annual report.

No interest was paid to suppliers of goods and services in the 2001 reporting year.

## APPENDIX 16

### SCA PUBLICATIONS

#### Brochures

Sydney Catchment Authority  
Corporate Brochure  
Healthy Catchments...Quality Water  
Catching the Cleanest Water  
How to make a Complaint or  
Offer a Compliment

#### Fact Sheets

HSC Education Series & Project Cover Page  
SCA General Information Series

#### Newsletters

Warragamba Spillway  
Community Newsletter

#### Videos

A Safe Dam – A Sure Supply:  
Warragamba Dam Auxiliary Spillway  
The Warragamba Story

#### Reports

SCA Annual Report  
SCA Annual Environment Report  
SCA Annual Water Quality Monitoring Report  
Audit of the Hydrological Catchments  
Managed by the Sydney Catchment Authority  
Streamwatch Report– SCA  
Streamwatch Network  
Sydney Catchment Authority  
Summary of Achievements

## APPENDIX 16 cont'

### Other

Special Areas Strategic Plan of  
Management – Strategy  
Special Areas Strategic Plan of  
Management – Background Document  
Wingecarribee Swamp and Special Area  
Plan of Management 2001  
Sydney Catchment Authority  
Operating Licence  
Memoranda of Understanding –  
NSW Health, EPA, DLWC  
Strategic Priorities Action Plan 2000  
Business Plan 2001 – 2006  
Bulk Raw Water Quality Management Plan  
Sydney Water Catchment Management  
(General) Regulation 2000  
Sydney Water Catchment Management  
(Environment Protection) Regulation 2000  
Energy Management Plan 2000 – 2001

### SCA Sponsored Projects

Sydney Catchment Environmental Education  
Directory – Environment Protection Authority  
The Little Pine Needs You – Blue Mountains  
Rare and Endangered Species Group  
Let's All Work Together to Improve the  
Quality of Water in Our Catchment –  
Wollondilly Phosphorus Action Campaign  
Controlling the Modern Day Rabbit Video –  
Goulburn Rural Lands Protection Board

## APPENDIX 17

TABLE 20: CATCHMENT PROTECTION &amp; IMPROVEMENT GRANTS (FINANCIAL YEAR 2000-2001 (ROUNDS 3 &amp; 4))

Grant No.	Applicant	Description	Amount Approved*
27	Bowral Urban Landcare Group	Restoration of East Section of Mittagong Rivulet.	8,000.00
28	Robertson Environment Protection Society Inc	Remove weeds, re-vegetate and stabilise sections of riparian land and establish riparian zone demonstration sites at various locations along Caalang Creek.	5,682.00
29	Central Tablelands Sustainable Grazing Systems	Increase awareness of grazing management strategies, which increase productivity and profitability, reduce soil and nutrient run-off for better water quality, and develop a greater understanding of biodiversity, soils and soil biota.	7,600.00
30	Mittagong Rivulet Landcare Group	To restore the Mittagong Rivulet to its natural riparian state.	8,000.00
31	Blue Mountains Conservation Society	(1) Set up display that raises awareness "Living in your Water Catchment"; and (2) produce website information / CD ROM.	5,000.00
32	Basket Creek Landcare	Revegetate Basket Creek with locally provenanced seeds to control the spread of exotic weeds, in particular, serrated tussock	2,400.00
33	Wingecarribee Bushcare Network	(1) Close off all unauthorised vehicle access points. (2) repair damage to fire trails (3) revegetate denuded areas (4) remove all environmental weeds (5) remove all dumped refuse (6) promote project to public about degradation issues (7) use project as promotion to set up a Bushcare group to maintain reserve.	5,000.00
34	Stoney Creek Landcare Group	(Continuation) Establish natural filter areas to Stoney Creek preventing delivery of silt, salt and phosphoresces down the creek.	7,000.00
<b>TOTAL – ROUND 3</b>			<b>48,682.00</b>
35	Inverary Creek Landcare Group Inc.	Revegetate a further eight hectares of badly degraded catchment of Paddy's Creek [Grant \$7,920 + Hire of Equipment \$1,200= \$9,120]	9,120*
36	Mt. Gibraltar Reserve Management Committee & Landcare Group	Removal of exotic vegetation from the bushland reserve at the source of two Sydney Drinking Water Catchments (Nattai and Wingecarribee Rivers) to allow regeneration of the native plant community.	8,000
37	Mt. Gibraltar Reserve Management Committee	Stage 2 – Restoration of Chinaman's Creek.	7,645
38	Mt. Alexandra Reserve Management Committee	Continuation of a plan for addressing soil erosion and water quality control in the Nattai Catchment.	8,000
39	Kangaroo Valley Community Association Inc.	Provision of water troughs to discourage cattle drinking in Kangaroo River and its tributaries.	8,000
40	Bungonia Park Trust	Fencing off Woodward's Creek from Woodward's Bridge on the Oallen Ford Road to the Bungonia Creek.	1,355
41	Sydney University Landcare Society	"Arthursleigh Farm", Marulan (1) revegetate of gully; (2) quality control and development of methods through monitoring; and (3) education and outreach.	7,884
42	Braidwood Urban Landcare Group	Flood Creek, Braidwood (1) remove problem willows (2) revegetate the riparian zone (3) stabilise the bed of the creeks; and (4) improve an existing track.	6,560
43	Reedy Creek Landcare Group	Reedy Creek and Mulloon Creek, approx 20 km north west of Braidwood. (1) Continue survey work, mapping issues on aerial photos; and (2) establish several demonstration sites.	7,300
44	Kedumba Creek Bushcare	McRae's Paddock section of Kedumba Creek valley – to help rectify and manage stormwater runoff and weed infestation.	4,890
45	Zig Zag Railway Co-op. Ltd.	(1) Set up Zig Zag Railway bushcare group; (2) plant local plants; and (3) educate through membership journal "Switchback".	1,605
46	Kangaroo Valley Environment Group Inc and the Brogers Creek Landcare Group	Undertake fencing, weed control and the planting of endemic native species on four tributaries to Brogers Creek, Kangaroo Valley. [Grant \$8,000 + Hire of equipment \$1,950 = \$9,950] *	9,950 *
47	Stoney Creek Landcare Group	Fourth stage of a six part project to replant the riparian zone and provide fencing and stock crossings to control erosion, silting and provide increase flow and quality of water to the Shoalhaven River.	7,500
48	Moss Vale Landcare Group Inc.	(1) Remove all environmental weeds surrounding the dam on Whites Creek; (2) plant native trees, shrubs and ground covers on banks; and (3) establish demonstration area to Golf Club, Moss Vale.	8,000
49	Mittagong Rivulet Landcare Group Inc.	Mittagong Rivulet from Centennial Road to Oxley Hill Road, Bowral. (1) remove environmental weeds; (2) repair erosion affected areas; (3) revegetate; (4) promote project as demonstration site.	8,000
50	Kangaroo Valley Environment Group Inc	Remove environmental weed in Kangaroo River and Gerringong Creek below Budderoo National Park, Kangaroo Valley.	8,000
51	Lithgow Oberon Landcare Assoc.	A series of activities throughout the catchment, involving school children and Landcare groups. (tree planting into surrounds of Lake Lyell, seed collecting and talks on the value of riparian vegetation).	6,400
52	Goulburn City Landcare Group	Thorough indigenous riparian plantings and weed removal along the Mulwaree River.	8,000
53	Bowral Urban Landcare Group (Inc.)	Restoration of the East Section of Mittagong Rivulet, Bowral.	8,000
54	Kangaloon Glenquarry Landcare Group	Riparian restoration along a section of Doudler Folly Creek, Kangaloon.	7,024.60
55	Yerranderie Landcare Group	Continuation of removal of <i>Berberis Aristata</i> , Barberry; trial of chemical control methods; and detailed survey work.	8,000
<b>TOTAL – ROUND 4</b>			<b>149,233.60</b>
<b>TOTAL – Financial Year 2000-2001</b>			<b>197,915.60</b>

\*excludes GST

# Glossary

<b>Algal bloom</b>	Rapid growth of algae in surface waters	<b>Protozoa</b>	Microorganisms consisting of a single cell eg, <i>Giardia</i> and <i>Cryptosporidium</i>
<b>Colour</b>	The colour that remains in water after any suspended particles have been removed	<b>Raw water</b>	Unfiltered water supplied in bulk to water supply authorities for treatment before distribution to consumers
<b>Environmental flows</b>	A release of water from storages so as to provide a flow of water in a river, stream, or other natural waterway, that: a) mimics natural seasonal flows, and b) restores and maintains the ecology of the waterway concerned	<b>Riparian</b>	Relating to the river bank, especially the rights of landowners on the river bank to use water from the river
<b>Faecal coliforms</b>	Bacteria which inhabit the intestines. Used as an indicator of sewage pollution	<b>Riparian flows</b>	Water releases which cover the right of adjacent property holders to extract water for certain stock and domestic requirements
<b><i>Giardia</i> &amp; <i>Cryptosporidium</i></b>	Pathogenic protozoa that can be found in water and which can sometimes cause illness in humans	<b>Special Areas</b>	Lands mostly around drinking water storages that were originally set aside for the protection of drinking water quality
<b>Limnology</b>	The study of bodies of fresh water with reference to their physical, geographical, biological and other features	<b>Turbidity</b>	The cloudiness caused by fine suspended matter (such as fine clay or silt particles) in water
<b>Megalitre</b>	Measurement of volume equal to one million litres. One Megalitre is approximately the volume of a one metre deep olympic-sized swimming pool	<b>Unfiltered water</b>	Water that has been chemically treated but not treated at a water filtration plant
<b>pH</b>	A measure of the degree of acidity or alkalinity expressed on a logarithmic scale	<b>Waste water</b>	Water discharges from domestic effluent, industrial (trade waste, industrial waste) and other sectors
		<b>Water storages</b>	The SCA's dam walls, pumps and other works used for or with respect to the extraction, and storage, of: a) water in rivers and lakes b) water occurring naturally on the surface of the ground, and c) sub-surface waters

## LIST OF ACRONYMS

<b>AMM</b>	Asset Maintenance Management	<b>EPA</b>	Environment Protection Authority	<b>PMO</b>	Preventive Maintenance Operation
<b>ANCOLD</b>	Australian National Committee on Large Dams	<b>ESD</b>	Ecologically Sustainable Development	<b>PoEO Act</b>	Protection of the Environment Operations Act
<b>ANZECC</b>	Australia and New Zealand Environment and Conservation Council	<b>FMECA</b>	Failure Modes and Effects Criticality Analysis	<b>RCC</b>	Regional Consultative Committee
<b>AWT</b>	Australian Water Technologies	<b>GST</b>	Goods and Services Tax	<b>RP</b>	Regional Plan
<b>BWSA</b>	Bulk Water Supply Agreement	<b>ICM</b>	Incident Control System	<b>REP</b>	Regional Environment Plan
<b>CLC</b>	Community Liaison Committee	<b>IMS</b>	Integrated Management System	<b>SACC</b>	State Algal Coordinating Committee
<b>CPS</b>	Catchment Protection Scheme	<b>IPART</b>	Independent Pricing and Regulatory Tribunal	<b>SASPoM</b>	Special Areas Strategic Plan of Management
<b>CRC</b>	Cooperative Research Centre	<b>JOG</b>	Joint Operational Group	<b>SCA</b>	Sydney Catchment Authority
<b>DLWC</b>	Department of Land and Water Conservation	<b>LGRP</b>	Local Government Reference Panel	<b>SEPP</b>	State Environmental Planning Policy
<b>DMR</b>	Department of Mineral Resources	<b>ML</b>	Megalitres	<b>SLG</b>	Strategic Liaison Group
<b>DSC</b>	Dams Safety Council	<b>MoU</b>	Memorandum of Understanding	<b>SMP</b>	System Management Plan
<b>EEO</b>	Equal Employment Opportunity	<b>NPWS</b>	National Parks and Wildlife Service	<b>SOP</b>	Standard Operating Procedures
<b>EIS</b>	Environmental Impact Statement	<b>OHS&amp;R</b>	Occupational Health, Safety and Rehabilitation	<b>SWC</b>	Sydney Water Corporation
		<b>PMI</b>	Preventive Maintenance Instruction	<b>SWCM Act</b>	Sydney Water Catchment Management Act
				<b>WFP</b>	Water Filtration Plant