

(introducing the SCA)

LETTER FOR THE MINISTER

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

28 November 2000

The Hon. Bob Debus M.P.
Minister for the Environment
Level 19, Roden Cutler House
24 Campbell Street
Sydney NSW 2000

Dear Minister,

I have great pleasure in submitting the first Annual Report of the Sydney Catchment Authority for the period ended 30 June 2000 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 (General) Regulation 1995*.



John Whitehouse
Chair



Jeff Wright
Chief Executive

REPORT FROM THE SCA CHAIR AND CHIEF EXECUTIVE OFFICER

This is the Sydney Catchment Authority's (SCA) first annual report, so it is appropriate to begin by recapping recent history and explaining our origins.

The SCA was born in the wake of the 1998 Sydney water quality incident, which saw the parasites *Cryptosporidium* and *Giardia* detected in Sydney's drinking water supply.

An independent Inquiry, instigated by the NSW Government, investigated the incident in order to identify the problems leading to the contamination and to determine whether existing water management and supply systems were adequate.

The Inquiry made a total of 91 recommendations to the Government, including creating a new body to take a leading role in catchment management. Accordingly, the SCA began operating in July 1999. Responsibility for managing the catchments, dams and their associated infrastructure was transferred from Sydney Water to the SCA at that time.

As a statutory authority, the SCA's activities are directed by the Sydney Water Catchment Management Act 1998 and the SCA Operating Licence.

Within that legislative framework, we are charged with the task of ensuring that the catchments are managed to optimise water quality, protect the environment, and minimise risk to public health.

The SCA is also a bulk water supplier to Sydney Water, other water supply authorities, and direct customers.

The SCA is a dynamic, innovative organisation. Like any new organisation, it has experienced a period of fast growth in its first year of operations, gathering the necessary human resources and knowledge to do its job well. The SCA is characterised by its drive and ambition to make lasting, measurable improvements to the health of the catchments, and to excel in the consistent provision of high quality bulk water to its customers.

Our workforce is an energetic mix of former Sydney Water employees with years of accumulated knowledge, and completely new starters who bring fresh perspectives from related industries. With our business cutting across a range of disciplines, from environmental science to engineering, our staff members are a diverse and



impressive group of people. Importantly, and palpably at the SCA, the threads of diversity are woven together by a shared commitment and passion for the catchments and assets in our care.

OUR FIRST YEAR

The SCA's first 12 months have been an important period in which to prioritise our objectives and begin implementing the necessary programs and systems to achieve long-term success in this vital new role for Sydney and surrounding townships.

The first audit of the health of the catchments, carried out by the CSIRO's Dr John Williams and presented to the Minister for the Environment in December 1999, was an important tool which informed the SCA Board's planning for the first year. The Board set eight Strategic Priorities for the organisation, drawing on the Audit, the Operating Licence, and the Act. They are:

- Ensuring the reduction of sewerage effluent impacts
- Managing existing and future discharging development
- Facilitating the improvement of stormwater quality
- Actively enhancing and maintaining riverine ecosystems
- Providing education and information to stakeholders and the community
- Undertaking and sponsoring monitoring and research
- Operating and maintaining bulk water and catchment infrastructure
- Delivering bulk raw water of an appropriate quality

In working to those Strategic Priorities, we have shown a particularly high level of activity in the following areas.

WATER QUALITY MONITORING

Following the contamination incident, one of the most pressing activities for the SCA was to increase water quality monitoring in order to meet our objective to protect public health.

In addition to ongoing routine monitoring, we have implemented special programs to deal with protozoa and developed contingency and emergency response plans to cover incidents (such as storms or spills). Monitoring fre-

quency and locations have been increased, and we have introduced 'hotspot' protozoa monitoring in sensitive areas around the catchment, such as sewage treatment plants, sale yards and piggeries.

Since our inception in 1999, we are proud to report that there have been no instances of protozoan contamination in the bulk water supply.

BULK WATER SUPPLY

In our first year as a bulk water supplier, we have consistently met customer requirements for the supply of quality bulk raw water: achieving 100% compliance with Sydney Water's quantity needs (our largest customer), and receiving no customer complaints about water quality.

The dams and pipelines are vital assets. Maintaining them to the highest standard is a top priority, so a new Asset Management Strategy was developed and granted Board approval in June 2000. The new strategy takes heritage issues into account alongside performance and safety.

We also began implementing a Capital Works Program with a total investment of \$114.2 million over the next ten years (excluding the \$150 million Warragamba Auxiliary Spillway), which includes works to improve the water transfer system.

PROTECTING THE ENVIRONMENT

It is very clear that consistent water quality cannot be achieved without maintaining the health of the catchments. The SCA works on-the-ground with landholders, councils and the community on catchment improvement projects, and we make funds available for works which will improve water quality.

Our own environment protection activities are comprehensive, including pest and weed control, riverbank stabilisation, fire management, research, mine and contaminated sites rehabilitation, and risk management planning. Planned expenditure for 2000/2001 exceeds \$20 million.

COMMUNITY CONSULTATION AND EDUCATION

As a new player on the catchment management scene, it is extremely important for us to consult with the people who live and work in the catchments we manage. In addition to liaising with other government agencies, we have sought community input by setting up various committees, including Regional Catchment Consultative Committees in Goulburn and the Blue Mountains, a Local Government Reference Panel, and an Independent Expert Reference Panel.

Our first year has seen the development of a number of new policies and plans, which we have put up for public comment. Examples include the *Sydney Water Catchment Management (General) Regulation 2000* and the *SCA Operating Licence 2000-2004*. Key documents will continue to be publicly displayed for comment as they are developed.

The SCA also has a role in educating the community about catchment issues. We run a program for schools and community visitors at Warragamba Dam and fund the Streamwatch program in our area of operations. We disseminate important messages via the media, and are currently developing a suite of publications designed to meet the public demand for information. We field numerous student enquiries, helping with material for projects and encouraging research into catchment management.

KEY ACHIEVEMENTS

Some of our key achievements in this first year of operations include:

- Successfully taking over the role of bulk water supplier for our customers, maintaining an uninterrupted quality supply, and setting up a bulk water agreement with Sydney Water.
- Developing and signing Memoranda of Understanding with NSW Health, the Environment Protection Authority, and the Department of Land and Water Conservation.
- Drafting new regulations for catchment protection. The regulation covering special areas went on public display in March 2000 and will come into force in June

2000; a new regulation covering the rest of the catchments is being developed in consultation with the EPA.

- Establishing a Catchment Grants Scheme to provide funds to community groups wishing to undertake improvement works in the catchments.
- Project managing the first 'state-of-the-catchment' audit undertaken by the CSIRO for the Minister for the Environment.
- Managing the Warragamba Dam Auxiliary Spillway project, which continues to progress ahead of schedule.

THE CHALLENGES AHEAD

One of the most significant challenges for the Sydney Catchment Authority is to make the sustainable development principles that protect water quality work for everybody in the catchments. We have to understand our catchment communities well enough to strike the right balance between their needs and livelihoods, and our needs as a bulk water supplier and environment agency.

To achieve a balance, the SCA needs the right tools. Accordingly, the draft *Sydney and Adjacent Regional Centres Drinking Water Catchments Regional Environmental Plan* is currently being developed for the SCA by the Department of Urban Affairs and Planning. This important, innovative framework for managing future and existing development in the water supply catchments will go out for public comment later this year, and is likely to be the subject of lively debate – not least because it represents a new, more rigorous approach to assessing the impact of development on water quality.

As the agency delivering such change, our challenge is to hear all voices in the catchments. We must respect the years of knowledge and experience therein, acknowledge the tension our presence creates for some, and work through the issues cooperatively.

In the coming year we will publicly display and implement important tools to complement the REP, such as the draft Plans of Management for Wingecarribee Swamp, the SCA Environmental Indicators, and our Catchment Risk Management Plan. Our focus is on long-term success, which is why we are building a strong, research-based

framework to allow for sound progress and accurate measurement of future catchment health. We are taking a deliberate, planned approach that we believe will yield long-term results.

In order to really know our communities and in order to be truly accessible to people, we will increase our presence with new regional offices at Goulburn, Moss Vale and in the Blue Mountains. We will also continue to attend community events and rural shows so that people have an opportunity to share information and ask questions in informal environments.

Underpinning all our activities is the knowledge that water is a precious resource, and that in Sydney's drinking water catchments, we are its guardian.

It's a big job. At the Sydney Catchment Authority, we have embraced the challenge with open arms, a wealth of expertise, and a true appreciation of the catchments and dams we oversee.

It's been a great first year – we are proud of our achievements to date, and we look forward to the challenges and successes ahead.



Signed: **John Whitehouse**
Chair SCA Board



Signed: **Jeff Wright**
Chief Executive &
Deputy Chair SCA Board

ABOUT THE SYDNEY CATCHMENT AUTHORITY

The Sydney Catchment Authority (SCA) is a state government agency. It was set up in July 1999 to manage and protect the catchments which provide Sydney's water supply. As part of its job the Authority also manages a complex network of dams and pipelines.

The SCA was formed in the wake of the Sydney water contamination incidents in 1998. After the discovery of *Cryptosporidium* and *Giardia* in the water supply, the NSW Government set up an independent inquiry, headed by Peter McClellan QC, to identify what caused the contamination and determine whether the water supply was being adequately managed.

The Inquiry did not point to a single source for the contamination, but suggested there were many possible sources. It emphasised the importance of healthy catchments in ensuring safe drinking water, and recommended:

- Creating a new body to take a leading role in catchment management
- Introducing stronger planning controls
- Improving water quality monitoring
- Initiating on-ground action to clean up the catchments, and
- Continuing support for community involvement in catchment protection.

The SCA works with other government agencies, local councils, catchment communities, industry bodies, environment groups and individual landholders to tackle issues affecting water quality.

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
- Help educate the community about water management and catchment protection.

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 from the hills and mountains eventually flows to a creek, river, lake, or ocean.

Sydney's water supply catchments are made up of five catchment systems: Warragamba, Metropolitan (Upper Nepean), Woronora, Shoalhaven River, and Blue Mountains.

These catchments cover a vast area – around 16,000 square kilometres. Although in total they represent only 2% of NSW, they supply water to over 60% 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. The SCA's role is to help reduce the negative impacts human systems can have upon the natural environment and water quality.

**CONTACTING THE SYDNEY CATCHMENT AUTHORITY**

The SCA's head office is in Penrith, and there are a number of field offices throughout the catchments.

SCA Head Office, Penrith

Phone: 47 252 100

Fax: 47 252 165

PO BOX 323, Penrith 2751

Level 2, 311 High Street, Penrith

Website

www.sca.nsw.gov.au

Email

hotline@sca.nsw.gov.au

Dam Visitor Information

Phone: 47 200 349

Emergency Reporting

Fires, chemicals, spills (24hours)
9751 1988

Field Office locations

Blue Mountains Office

Cascades Dam, off Mort Street

North Katoomba NSW 2780

Goulburn Office

Suite 5 Newo House

23-25 Montague Street

Goulburn NSW 2580

Moss Vale Office

Shop 1 Argyle Centre

Argyle Street

Moss Vale NSW 2577

Depots

Cordeaux Dam

Warragamba Dam

Kenny Hill

Burrawang

INTRODUCING THE BOARD

The Board of the Sydney Catchment Authority currently comprises eight members, including the Chairman and the Chief Executive. The Chief Executive is the only executive Board member.

The SCA Board has extensive expertise in the areas of protection of the environment and public health.

Mr John Whitehouse

John Whitehouse is the Chairman of the Authority. He is a Solicitor and Partner with the Sydney office of Minter Ellison. He is the National Practice Head for Planning and Environment Law with Minter Ellison. He is a Trustee of the Australian Museum and was 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 BSc from Macquarie University and a Diploma in Legal Practice from the University of Technology, Sydney.



Ms Helen Cameron

Helen Cameron is a professional company director and is on the boards of AMRAD Corporation, TDG Logistics, Rural Industries Research & Development Corporation, Foodbank NSW, and BBY Limited. 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 Director and Head of Research of a leading stockbroking firm where she specialised in food and agribusiness companies. She holds an MBA from Macquarie University (NSW), and a BSc from the University of Canterbury (New Zealand). Ms Cameron is Chair of the SCA Audit Committee.



Mr John Asquith

John Asquith is currently the Vice Chairperson of the Nature Conservation Council and Chair of the Central Coast Community Environment Network. John is a member of the NSW Environmental Trust, a past member of the Bushfire Coordinating Committee 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 qualifications in engineering, management and environmental activities.



Mr John Klem

John Klem has lived in the Sydney water 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 both the Hawkesbury Nepean Catchment Management Trust and the State Catchment Management Coordinating Committee. John has formal qualifications in Education and Agriculture and is committed to a healthy and sustainable environment.



Dr Kerry Chant

Dr Kerry Chant is a public health physician and is 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 infections. Dr Chant is a member of the Royal Australian College of Physicians, Faculty of Public Health Medicine and has a Bachelor degree in Medicine and Surgery. She also holds a Master of Public Health and a Master of Health Administration.

Mr Ken Wheelwright

Ken Wheelwright manages a grazing property situated in the catchment on the Upper reaches of the Wollondilly River. He also represents the NSW Farmer's

Association. Ken has been actively interested in developing sustainable and profitable farm management practices. Ken 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 Urban Development Institute of Australia since 1997.

**Mr Jeff Wright**

Jeff Wright is CEO and Deputy Chairman of the Authority. 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 what is now EPA, 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 Masters



degree in public health engineering. He also has post-graduate diplomas in finance and in operations research, and a company director's diploma.

COMPOSITION OF THE SCA

The roles, functions and objectives of the Authority are delivered through a structure which comprises:

- the Authority's Minister;
- a Board comprising eight members;
- the Chief Executive; and
- the Executive Team.

The SCA is subject to the direction and control of the Minister for the Environment, the Hon Robert Debus, in accordance with the Sydney Water Catchment Management (SWCM) Act.

The appointment of Board members is also governed by the SWCM Act. The Board is to consist of the Chief Executive and no fewer than four and no more than seven members, who are appointed by the Minister.

One of the members is to be a nominee of the New South Wales Farmers Federation and the 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.

Persons appointed to the Board must, altogether, have expertise in the areas of the protection of the environment and public health, and any other expertise the Minister considers necessary to enable the Authority 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, which must not exceed a term of three years. An appointed Board member, whose term has expired, is eligible, if qualified, for reappointment.

ROLE OF THE BOARD

The Board's functions are to:

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

The Board meets once a month and, when necessary, considers material and issues out of session. The first meeting of the Board took place on 23 April 1999.

The role of the Board is to deliver governance, stewardship and leadership. It provides advice and leadership in the decision-making process. The Board is responsible for adopting the Authority's business plan, including the capital works program, and operational budget, and setting and reviewing strategic corporate goals. It also reviews, and where necessary, approves acquisitions and disposal of land and assets, and capital raising. It also has responsibility, through its audit committee, of overseeing audit and compliance functions.

The Board must take into account the specific obligations of the SWCM Act, the Operating Licence and the general law. When determining the policies and long-term strategic plans of the Authority, it must be mindful of the role of other government agencies and the need to adopt a "whole of government" approach.



Members are also to disclose and record direct or indirect pecuniary interests. A Board member who has a direct or indirect pecuniary interest in a matter is not to be present when the matter is being considered, or to take part in the decision-making about the matter.

Corporate governance

On Tuesday 20 June 2000, all Board members and the executive of the SCA attended a Corporate Governance Workshop for public sector boards, presented by Henry Bosch and Peter Timmins.

The workshop covered the following issues:

- roles, responsibilities and accountability of public sector boards;
- managing risks and liabilities; and
- evaluating board performance.

Audit Committee

The Audit Committee comprises four members:

Ms Helen Cameron, Chair
Mr John Whitehouse, Member
Mr Kenneth Wheelwright, Member
Jeff Wright (ex-officio)

The first meeting of the Audit Committee was held on 31 March 2000.

Representatives from the Audit Office, Internal Auditor and the Authority attend the meetings of the committee.

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

The main responsibilities 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;
- carefully consider issues raised by the external and internal auditors, as those issues may have implications for the Authority's control environment; and

- ensure that the Authority's accounting policies and principles are in accordance with 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 committee also has to ensure:

- that appropriate authorisations are in place to enable the functions of the Authority to be carried out in a structured and accountable manner;
- the adequacy of the Authority's insurances to cover its risk and liability profile; and
- the adequacy of contingency plans in the event of disruption to the Authority's operations.

The Audit Committee meets every three months.

BOARD AND AUDIT COMMITTEE ATTENDANCE AT MEETINGS

Board Members	Meetings Held	Meetings Attended
John Whitehouse, Chair	12	11
Jeff Wright	12	11
John Asquith	12	12
Helen Cameron	12	10
Dr Kerry Chant	12	8
Patricia Gilchrist	12	12
John Klem	12	12
Kenneth Wheelwright	12	12

Note: The SCA Board met three times in the previous year (April, May & June 1999) before the SCA began operating on 2 July 1999.

Audit Committee	Meetings Held	Meetings Attended
Helen Cameron, Chair	3	3
John Whitehouse	3	2
Kenneth Wheelwright	3	3
Jeff Wright (ex officio)	3	3

SCA CODE OF CONDUCT

The Authority has published an employee Code of Conduct, which sets out standards for appropriate ethical and professional conduct for employees. The Code of Conduct deals with the:

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

The Board expects that all employees of the Authority will comply with the Code of Conduct. [\[See Appendix 3.\]](#)



SCA CHARTER AND LEGISLATIVE FRAMEWORK

The Authority is charged with the task of ensuring that the catchments are managed to optimise water quality, protect the environment and minimise the risk to human health, and to supply bulk water to Sydney Water Corporation and other water supply authorities and customers.

The activities of the Authority are directed principally by the Sydney Water Catchment Management Act, 1998 and the Authority's Operating Licence.

THE SYDNEY WATER CATCHMENT MANAGEMENT (SWCM) ACT 1998

Under the SWCM Act the role of the Authority is to:

- a) manage and protect the catchment areas and catchment infrastructure works;
- b) be a supplier of bulk water; and
- c) regulate certain activities within or affecting the outer catchment area as well as the inner catchment area.

Its principal objectives are to:

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

The roles, objectives and functions to be undertaken by the Authority are authorised by means of an Operating Licence. This licence is granted by the Governor under section 25 of the Sydney Water Catchment Management Act 1998. It authorises the Authority to provide, construct, operate, manage and maintain systems and services, in order to achieve its objectives. The Authority's performance is audited every 12 months by a Licence Regulator appointed by the government.

OTHER REGULATORY INSTRUMENTS AND BODIES

The Authority is required to operate in accordance with a water management licence issued by the Department of Land & Water Conservation. The water management licence allows the Authority to extract and use water from identified water sources and water management works. It specifies the amount of water that can be extracted from water sources and the quantity of water that must be made available for environmental flows. The first water management licence is currently being drafted.

MEMORANDA OF UNDERSTANDING

As required by the SWCM Act, the Authority entered into separate Memoranda of Understanding with certain regulatory agencies: the Director General of New South Wales Health, the Water Administration Ministerial Corporation, and the the Environment Protection Authority (EPA). The Memoranda of Understanding between the Authority and the regulatory agencies have a number of common objectives which include:

- the establishment of a cooperative relationship between the parties;
- development of consultative processes to consider operational strategic and public health issues;
- the exchange of data and information; and
- dispute resolution.

THE SCA'S REGULATORY ROLE

The Authority also has a key role in regulating activities that are likely to impact on the catchments and their ability to supply high quality raw water to its customers. In special areas and controlled areas, which are tracts of land closest to the Authority's water storages, public access, as well as certain activities and conduct, are controlled by means of the Sydney Water Catchment Management (General) Regulation 2000.

Under State Environmental Planning Policy 58 (SEPP 58), the SCA has a concurrence and compliance role in relation to certain types of proposed developments and is required to assess certain new development proposals to

determine whether they will have a neutral or beneficial effect on water quality in the water supply catchments. At present, a regional environmental plan is being developed. This will further develop and refine the functions of SEPP 58 and ultimately replace it.

The Authority is also able to influence the making and amendment of local environmental plans so as to ensure adequate measures are included in the plans to protect catchments and water quality.

The Sydney Water Catchment Management Act 1998 also gives the Authority the ability to exercise concurrence and compliance functions under other agencies' legislation. With the assistance of the EPA, the SCA is developing an Environment Protection Regulation which will enable it to protect water quality at the source of its supplies.

CURRENT LEGAL MATTERS

An application has been made by the Gundungurra No. 6 Group to the Federal Court to determine a Native Title Claim over certain land, water and assets (including Warragamba Dam), owned by the SCA. The claim applies to items in the local government areas of Bathurst, Blayney, Blue Mountains, Boorowa, Camden, Campbelltown, Cowra, Crookwell, Evans, Goulburn, Greater Lithgow, Gunning, Liverpool, Mulwaree, Oberon, Penrith, Tallaganda, Wingecarribee, and Wollondilly.

Because it could be affected by a decision in favour of the applicants, the Authority has sought to become a party to the proceedings.

LEGAL CHANGES DURING THE YEAR

The Sydney Catchment Authority was constituted on 8 January 1999, under the *Sydney Water Catchment Management Act 1998*.

On 2 July 1999, the SCA acquired certain assets, land and staff from Sydney Water, to enable it to undertake its statutory functions. The Authority commenced full operations on this date.

SCA Operating Licence

The Governor granted an Operating Licence to the Authority on 2 July 1999 under section 25 of the Sydney Water Catchment Management Act 1998. This licence was renewed on 22 December 1999 for the period 1 January 2000 until 31 December 2004. It was then amended to take effect from 19 April 2000.

SEPP 58

On 31 March 2000 the concurrence role for SEPP 58 was transferred from the Director General of the Department of Urban Affairs and Planning to the Chief Executive Officer of the SCA.

Independent Pricing and Regulatory Tribunal Act 1992 – Order

On 8 February 2000, under section 4 of the Independent Pricing and Regulatory Tribunal (IPART) Act 1992, the Premier declared that the following services supplied by the SCA were government monopoly services:

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

This means that IPART will decide the price the Authority is able to charge for these services.

Amendment to Dams Safety Act

The Dams Safety Act 1978 was amended, with the approval of Sydney Water Corporation, by deleting the corporation as a member of the Dams Safety Committee and substituting the Sydney Catchment Authority.

[summary review of operations 1999-2000]

HOW WE PERFORMED

BULK WATER SUPPLY

Strategies	Outcomes	Future tasks/issues
Deliver quality bulk water to SCA customers	- Bulk water agreement with SWC established - Customer requirements for supply of quality bulk raw water met - No water quality customer complaints	- Develop customer agreement for customers other than SWC - Develop an integrated management system in line with revised Australian Drinking Water guidelines to ensure maintenance of product quality

ASSET AND INFRASTRUCTURE MANAGEMENT

Strategies	Outcomes	Future tasks/issues
Maintain and improve infrastructure	10 year Capital Works Program developed, approved, and commenced - SCA Asset Management Strategy developed, approved and implemented - Standard Operating Procedures (SOPs) being developed for all assets - Achieved full compliance with NSW Dam Safety Committee requirements - Warragamba Auxiliary Spillway project progressing on schedule	- Continue developing SOPs for all assets - Complete Operations and Maintenance manuals for high and significant hazard dams - Spillway project due for completion in 2002

CATCHMENT MANAGEMENT AND PROTECTION

Strategies	Outcomes	Future tasks/issues
Regulate access	- Increased signage and surveillance - Development of revised catchment regulation for special and controlled areas	Implement revised regulation
Protect catchment	- Land management operations undertaken such as trail maintenance, contaminated sites rehabilitation and erosion control works - Developed community grants program to fund catchment works - SCA funds Catchment Protection Scheme with DLWC - SCA supports Landcare groups including in-kind and sponsorship	- Ongoing on-ground catchment protection activities under \$2.7 million Catchment Enhancement and Protection Program - Renegotiate and fund Catchment Protection Scheme with DLWC for further two years - Develop second regulation to cover rest of catchments
Regulate development	- Administration of SEPP 58 taken over by SCA - SCA participating in development of new REP for catchments	- Participate with DUAP in community consultation on draft REP - Implement the REP once finalised

PROTECTING AND ENHANCING WATER QUALITY

Strategies	Outcomes	Future tasks/issues
Improve water quality monitoring	Increased locations and frequency and hotspot monitoring introduced	
Identify and manage pollution sources in the catchments	- Draft Pollution Source Risk Management Plan being developed - Working with other agencies such as the EPA, DMR, DLWC to reduce pollution	Plan to be exhibited for public comment in latter half of 2000 and implemented in 2001
Manage incidents	- Emergency response plans developed to deal with spills and water quality incidents - Staff trained in response protocols and inter-agency scenarios successfully completed - SCA public emergency reporting line established	- Undertake audit of SCA's incident preparedness - Ongoing staff training
Influence regulatory framework	- Memoranda of Understanding established with key stakeholders - Reporting program developed to meet compliance requirements	Complete first audit of our operating licence

RESEARCHING THE CATCHMENTS

Strategies	Outcomes	Future tasks/issues
Conduct baseline audit into catchment health	SCA project managed first catchment audit to assess catchment health as required by SWCM Act	Next catchment audit required by end 2001
Lead research into Sydney's hydrological catchments	Research program is being developed in consultation with independent experts and environmental groups	Implement research program once consultation phase is complete (expected by end October 2000)
Work cooperatively with research bodies	- Research agreements forged with Cooperative Research Centres (CRCs) for Freshwater Ecology and Water Quality Treatment - SCA working with NSW Fisheries on fish highway study	SCA is negotiating a research agreement with the University of Western Sydney

COMMUNITY EDUCATION AND INFORMATION

Strategies	Outcomes	Future tasks/issues
Establish communications direction for SCA	Communications Direction document developed and approved	- Revised SCA Communications Plan due end 2000 - Community research to be undertaken
Establish SCA media profile	- Media policy and procedures developed - Media kit developed and distributed - Regular media releases and statements issued	Continue issuing media releases to promote SCA messages and activities
Expand on existing education program	- Plans to develop mobile catchment education unit underway - Incorporate increased catchment education into new Warragamba Dam visitor centre	- Complete and launch mobile education unit - Interpretive plan due for development in latter half of 2000; community consultation to be undertaken
Provide information to the community	- Several regional shows and community events attended with displays - Publications being developed to meet student and public enquiries - Brief written to redevelop website to increase education/information value	- Continue public appearances at suitable events - Distribute publications in suitable locations throughout catchments - Tender to redevelop website to be let in latter half of 2000

FORMAT OF DETAILED REVIEW OF OPERATIONS

Guided by its objectives and functions under the SWCM Act, in its first year of operations the SCA began work on a range of policies, as well as its Business Plan and Strategic Priorities. We have opted here to report in detail against the specific functions outlined in the Act. Chapters 1-6 therefore deal with our performance against these functions.

Information has also been provided on community consultation activities, internal corporate structure, human resource activities, and the financial statements for the SCA.

Appendices are included to cover water quality monitoring, reporting requirements for freedom of information, code of conduct, grants to non-government organisations, energy and risk management, use of consultants, guarantees of service, and publications. For comprehensive information about our environment activities, refer to the SCA's Annual Environment Report 1999-2000.



[detailed review of operations]

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
- 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 has a primary function to provide quality bulk water to its customers through effective asset, resource and risk management. By adopting recognised industry best practices, the Authority integrates the planning and operations functions to ensure asset capability and availability, and product quality.

In its inaugural year, the SCA delivered a number of initiatives that have been instrumental in shaping the future and direction of bulk water supply. These include; incident management plans, the asset management strategy, ten year capital works program, and data management systems. Detailed planning and implementation of strategies designed to minimise the impacts of Y2K and ensure uninterrupted product delivery through the Olympic period were also successfully undertaken. The results of some of the SCA's bulk water supply activities are highlighted below.

1.1 QUANTITY OF WATER SUPPLIED TO SCA CUSTOMERS

A total of 606,525.5 megalitres (ML) of water was supplied from various storages to Sydney Water Corporation water filtration plants and to privately owned plants that are contracted to Sydney Water, to Shoalhaven City Council, Wingecarribee Shire Council and small customers drawing water directly from storages, pipelines and the Upper Canal. Of the total, 99.4% was supplied to Sydney Water Corporation.

TABLE 1: WATER SUPPLIED TO SCA CUSTOMERS

Customer	Bulk water supplied ML
Sydney Water Corporation (SWC)	602769
Wingecarribee Shire Council	3384
Shoalhaven City Council	71
National Parks & Wildlife Service (NPWS) – Fitzroy Falls Visitor Centre	0.5
Direct Users – Upper Canal	212
Direct Users – Warragamba Pipeline	42
Direct Users – storages	25
Cataract Scout Park	22

TABLE 2: WATER CHARGES TO SYDNEY WATER CORPORATION

Bulk water charge to SWC	
Quantity supplied ML	602769
Fixed charge (\$4.8M/mth)	\$57,600,000
Variable charge (\$104/ML)	\$62,688,045
Water quality rebate*	\$(3,200,000)
Net income	\$117,088,045

* Water quality rebates were made to Sydney Water Corporation as a result of minor departures from the specifications of the Bulk Water Agreement. The total rebate for the year was capped at \$3.2M.

Quantity supplied to Sydney Water Corporation

The charts below show the quantities supplied to SWC during each cost period.

FIGURE 1: TOTAL BULK WATER SUPPLIED TO SWC

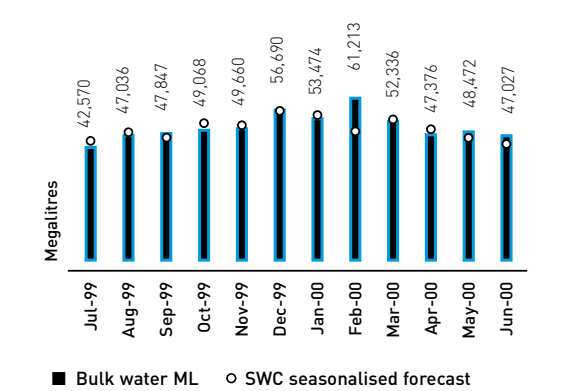
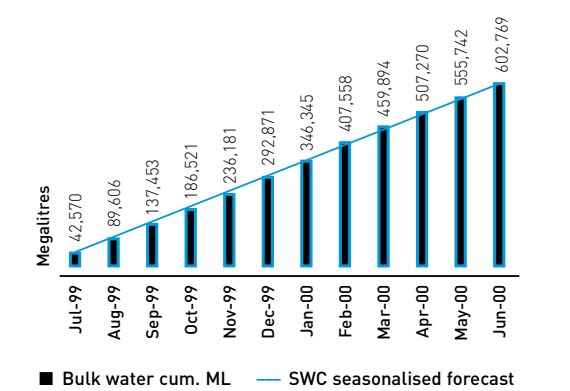


FIGURE 2: CUMULATIVE TOTAL BULK WATER SUPPLIED TO SWC



1.2 RAW WATER QUALITY

Unfiltered and raw water was supplied 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 dosing with 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 11 in Appendix 1 shows 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.

Australian Water Technologies (AWT) Environment Science and Technology (ES&T) continued to monitor water quality in the reservoirs that provide Sydney's water supply for the SCA.

Blue-green algae concentrations exceeded guideline levels in Fitzroy Falls, Wingecarribee and Prospect Reservoirs earlier in the season, and for longer than in previous years. The dominant bacteria in the blooms were tiny, non-toxic species. However, the cell numbers exceeded the Metropolitan South Coast Regional Algal Coordinating Committee (MSCRACC) guidelines for recreational use. The SCA supported a Department of

Land and Water Conservation (DLWC) and AWT submission to the State Algal Coordinating Committee (SACC), to revise the guidelines to account for cell size and toxin content. This submission is being reviewed at a national level. If accepted, the changes will allow for better management of situations where the presence of blue-green algae poses little risk to recreational users.

In 1999 a new method for measuring dissolved oxygen was trialed in Lake Nepean. This trial was very successful. It can extend the capability of the real time water quality monitoring network, and has applications for managing water quality in the storages.

A new software program called RESMAN was tested and fine tuned. The program was used to obtain real-time temperature profiles in the lakes. This data was used to destratify the stored water and locate outlet screens to ensure the best quality water is drawn off for supply.

Figures 7 and 8 in Appendix 1 illustrate the types of data available from the RESMAN program. As water temperature is a good indicator of water quality, SCA staff are able to use the data in their day-to-day management of bulk water supply.

Supply to Wingecarribee and Shoalhaven City Councils

The Shoalhaven system storages experienced another blue-green algae bloom during summer and the levels remained elevated for the rest of the year. Fitzroy Falls Reservoir appeared to be most affected.

Staff worked closely with Shoalhaven City Council and Wingecarribee Shire Council to manage the blooms. Water quality data was communicated and meetings were held regularly with the two councils.

Shoalhaven City Council's Kangaroo Valley Water Filtration Plant is capable of handling algae cells and microcystin (toxins) while Wingecarribee Council successfully commissioned a powder activated carbon process to their treatment plant in case toxins were detected in the Wingecarribee Reservoir raw water supply.

After the collapse of Wingecarribee Swamp in 1998, a peat barrier was successfully installed in Wingecarribee Reservoir and no further movement of peat has been observed.

1.3 RAINFALL AND STORAGE BEHAVIOUR

Overall, the water supply catchments received more than the long-term median rainfall during the year. As a result there was a net positive change in storage levels over the year. Woronora, Nepean and Tallowa Dams spilled for varying periods.

There were no transfers of water during the year. However, the opportunity was taken to 'top up' Avon by providing water from Nepean Dam.

The tables and figures below show the rainfall received and the movement in storage levels.



THE YEAR AHEAD

Continued implementation of the Asset Management Strategy and the Bulk Water Division's Operating Strategy will place the SCA in a good position to deliver on its obligations and commitments. Continued strengthening of already good relationships with customers, stakeholders, and regulators is anticipated.

Commencement of the development of 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 operation are addressed in a continuous improvement framework.

Investigations and research into water quality and asset capability issues will continue as a major focus in order to gain customer confidence in the SCA's ability to deliver an effective service and quality product which meets their expectations.

FIGURE 3: RAINFALL
Catchment rainfall 1999/2000

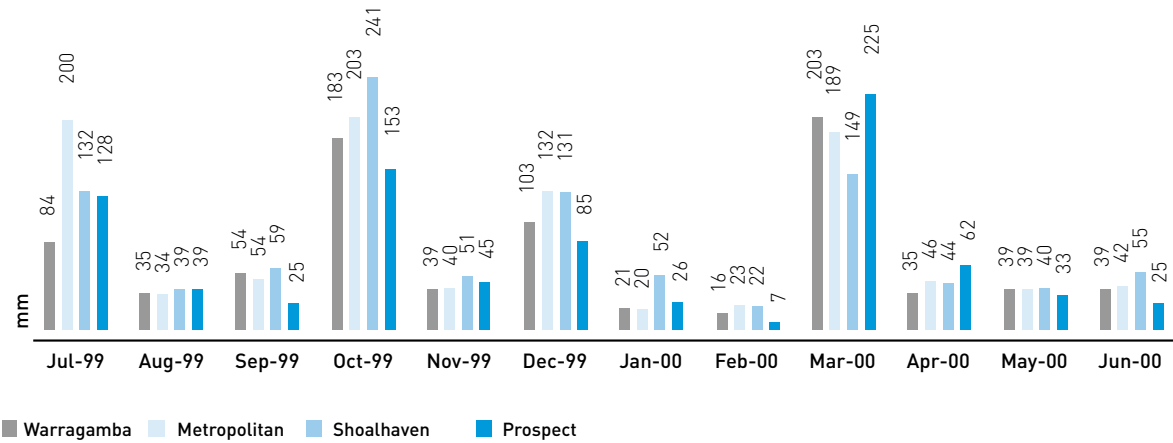
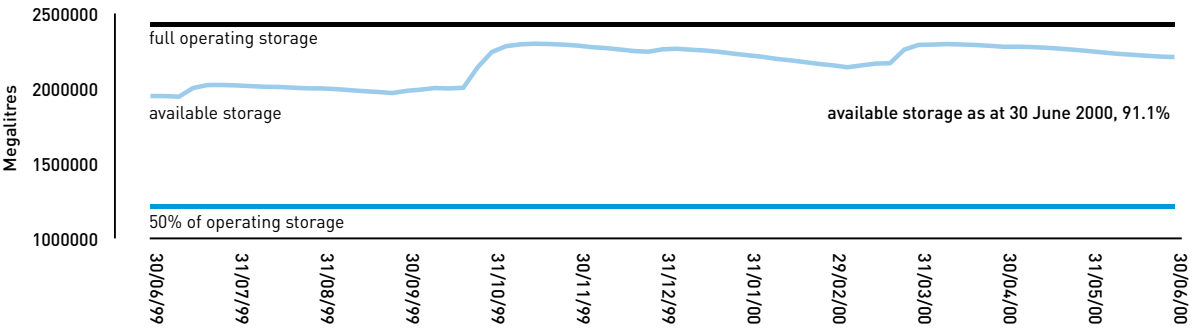


TABLE 3: NET ANNUAL CHANGE IN STORAGES

	Full operating storage (ML)	Storage level (m)	Available storage (ML)	Available storage (%)	Net annual change (m)	Net annual change (ML)
Cataract	94,300	-3.14	69,940	74.2	-0.48	-3,430
Cordeaux	93,640	-2.51	75,510	80.6	1.15	7,350
Avon	146,700	-3.43	112,460	76.7	-0.10	-940
Nepean	40,810	-0.41	39,500	96.8	4.41	13,130
Woronora	71,790	-1.01	68,100	94.9	1.36	4,740
Warragamba	1,886,000	-1.68	1,762,370	93.4	3.46	240,000
Prospect	8,870	+0.02	8,870	100.0	-0.03	0
Wingecarribee	33,500	-1.20	26,360	78.7	0.02	170
Fitzroy Falls	10,000	-0.56	7,150	71.5	-0.14	-740
Tallowa	36,000	+0.06	36,000	100.0	0.04	0
Blue Mountains	3,640		3,380	92.9		-70
Total	2,425,250		2,209,640	91.1		260,210

FIGURE 4: MOVEMENT IN AVAILABLE STORAGE
Movement in available water storage in total system



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 Authority’.

OVERVIEW

The SCA was created with the transfer of all the catchment areas, stored waters, dams and associated structures, raw water transport conduits, land, buildings, working plant and equipment, associated with the supply of bulk water. These items were previously owned by the Sydney Water Corporation.

The asset base is extensive and critical to the delivery of a reliable supply of quality bulk water to the SCA’s customers and their consumers, who number in excess of four million people.

In delivering this service, the SCA has the following four management challenges:

- to minimise the cost of acquiring physical assets
- to minimise the cost of maintaining the assets
- to ensure the assets continue to perform satisfactorily
- to meet service delivery outcomes.

How well these four challenges are met will profoundly influence the overall effectiveness of the SCA in making use of its physical assets. As a result, the formulation and execution of a suitable physical asset management strategy is a top priority.

The SCA’s Asset Management Strategy was developed within the context of a total asset management framework, based on the NSW Government’s Total Asset Management Guidelines Manual.

The strategy is designed to ensure the assets are operated, maintained, renewed, replaced or created in an effective and efficient manner to achieve service delivery outcomes.

2.1 SCA ASSET MANAGEMENT STRATEGY

The SCA’s Asset Management Strategy was developed by the Bulk Water Division and approved by the Board at its meeting in June 2000. The strategy takes into account

environmental impact reduction initiatives and heritage issues. Key areas of progress in the SCA Asset Management Strategy have been:

- Completing System Management Plans for the highest priority systems, namely Warragamba Pipeline and the Upper Canal. Work has progressed well on System Management Plans for the five remaining systems: Warragamba Dam, Prospect Dam, Shoalhaven System, Metropolitan Dams and Blue Mountains Dams, for a December 2000 completion. Risk assessment workshops to identify gaps between existing and required capacities/capabilities were completed for all systems. These plans were used to prioritise projects in these systems over the coming year.
- Developing and progressing programs for the completion of Standard Operating Procedures (SOPs), a major component of Bulk Water’s quality management system. Identification and rationalising of SOPs was undertaken for all assets. Production Officers worked on developing SOPs for critical operations.
- The operations and maintenance manuals for Warragamba Dam were finalised and issued. Draft manuals for Tallowa, Cataract, Cordeaux, Avon and Nepean Dams were prepared and reviewed. Work on the preparation of draft manuals for Bendeela Pondage, Cascade Dams, Fitzroy Falls Reservoir, Wingecarribee Reservoir, Kangaroo Pipeline control structure, Glenquarry Cut and Prospect Reservoir progressed well.
- The programmed annual and five-yearly dam safety inspections found the storage dams to be maintained in satisfactory condition, in accordance with the Australian National Committee on Large Dams Guidelines and NSW Dams Safety Committee requirements for the management of large dams.
- Major asset maintenance activities to ensure asset reliability were undertaken on the Warragamba Pipeline, Warragamba Dam Drum Gate, Cataract Tunnel, Nepean Tunnel, Upper Canal and Broughtons Pass Dosing Plant.

Maintenance

Staff participated in the first phase of a maintenance improvement plan, which resulted in a number of positive outcomes for the SCA and its mechanical and electrical maintenance contractor, ABB.

These outcomes achieved improved efficiencies and a lowering of costs. Attention was also paid to improving equipment reliability. A summary of the outcomes follows:

- Preventative maintenance work for isolated areas was streamlined
- Peaks and troughs in the preventative maintenance workload were levelled out across the year
- Recommendations were made to eliminate or reduce significant or recurring problems. A number of the recommendations were implemented immediately
- Preventative maintenance frequencies and duration were optimised
- Progress was made in auditing the accuracy of the SCA’s Asset Register, with redundant items deleted and missing items added.

2.2 CAPITAL WORKS

The SCA Board approved a ten-year coordinated capital works program in February 2000, encompassing 54 projects at a total cost of \$268.13 million. An annual expenditure of around \$12 million (excluding the Warragamba Auxiliary Spillway) is anticipated.

The program mostly involves renewals and upgrades of existing water supply infrastructure, focussing on dam safety, asset reliability, environmental and OHS&R improvements and water quality enhancement projects. Significant upgrading works have been proceeding on the Warragamba Dam Auxiliary Spillway, the Upper Canal and Warragamba Pipelines. Capital funding has been used to acquire parcels of catchment land, as well as to establish office accommodation at Penrith.

The Warragamba Dam Auxiliary Spillway is by far the largest of the capital projects, with an overall estimated cost of \$150 million. At the time of writing, the excavation of the new chute spillway was almost complete and concrete lining had commenced. Since the start of the

project, \$56.67 million had been spent to the end of June 2000. The major civil engineering construction is scheduled for completion by December 2001, with supplementary contracts extending to early 2004.

Significant work has been undertaken to develop processes for managing the asset program and for the asset creation process in general. Project management expertise and computer software is being mobilised to provide good control.

The following table sets out the capital works expenditure for 1999-2000.

TABLE 4: CAPITAL WORKS EXPENDITURE FOR 1999-2000

Project	1999-2000 Expenditure [\$M]
Warragamba Dam, spillway upgrade	34.840
Warragamba Pipelines, access platforms and ladders	0.024
Metropolitan Dams, upgrade of roads	0.020
Metropolitan Dams, upgrade of effluent disposal systems	0.025
Broughtons Pass, replacement of stopboards	0.081
Upper Canal, refurbishment of channel	0.411
Upper Canal, refurbishment of aqueducts, Stage 1	0.178
Upper Canal, biological monitoring station dechlorination	0.019
Prospect Reservoir, upgrade of scours	0.014
Bendeela Camping Ground, alternate water supply	0.005
Burrawang Pumping Station, replacement of DC batteries	0.080
Land acquisition for catchment areas	0.587
Bulk water, on-line water quality monitoring systems	0.038
Upgrade hydrographic and water quality monitoring network	0.065
Office accommodation at Penrith	0.937
Total	37.324

2.3 HERITAGE

The SCA is responsible for managing a diverse range of heritage items, including dams and associated infrastructure, weirs, farm buildings, mining infrastructure, walking tracks and bridges. Such diversity of items is due to the organisation’s long history of water supply service and the purchase of former pastoral and mining lands within the water supply catchments.

In addition, the SCA’s land holdings in the Special Areas and at Welcome Reef contain numerous sites and places of significance to Aboriginal communities. Known Aboriginal archaeological sites are recorded in the Aboriginal Sites Register, which is administered by the National Parks and Wildlife Service (NPWS).

To assist in the management of this diverse heritage portfolio, the SCA maintains a Heritage and Conservation Register (currently in draft stage). Thirty-eight heritage items are listed on the draft Heritage and Conservation Register, 21 of which are listed on the State Heritage Register. These include dams and associated infrastructure, Prospect Reservoir, the Upper Canal, Coxs River walking track and homesteads in the Welcome Reef area. See Table 5 for a full listing.

In its first year of operation the SCA has undertaken a number of initiatives to manage its cultural heritage and has established a management framework for future works. In summary:

- **Establishment of a management framework.** The SCA established a management framework for cultural heritage which involved forming the SCA 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 focuses on specific cultural heritage issues related to the Special Areas. This Working Group comprises SCA and NPWS officers.
- **Upgrade of Draft Heritage and Conservation Register.** The SCA, in conjunction with Sydney Water, commissioned consultants to help upgrade and split the draft

Sydney Water Heritage and Conservation Register into two parts, one to cover each agency. This project was undertaken to meet the requirements of the NSW Heritage Act and to help SCA staff responsible for capital and maintenance works on heritage assets.

- **Preparation of Conservation Management Plans for Aboriginal sites.** The Conservation Management Plans will guide planned repair works and protection of the sites.
- **Preparation of a Conservation Management Plan for “Joorilands”.** “Joorilands” is a former sheep station located in the Warragamba Special Area. While the Conservation Management Plan was being prepared, emergency works were undertaken to prevent further irreversible damage to the existing structures. This project, undertaken jointly by the SCA and NPWS, will assist with its future management.
- **Oral history project canvassing views from Illawarra and Thurawal Local Aboriginal Land Councils on the management of Special Areas.** This project was conducted jointly between SCA and NPWS to help the joint managers of the Special Areas address the needs of these groups.
- **Preparation of a Conservation Management Plan and structural assessment of the Yerranderie Police Station, Courthouse and Church.** Yerranderie is a former mining outpost located in the Warragamba Special Area. The SCA-owned courthouse, police station and church have high heritage value. The Conservation Management Plan and structural assessment will guide the planning of future restoration works.

As the *Draft Heritage and Conservation Register* is being upgraded, no items have been formally added or removed from the draft register at this stage.



TABLE 5: SCA'S HERITAGE ASSETS

Heritage item	Listing on draft Heritage and Conservation Register	Listing on the State Heritage Register
Arnprior Homestead	•	•
Avon Dam	•	•
Cataract Dam	•	•
Charcoal pit, Warragamba catchment	•	
Cobbity Village Weir	•	
Cordeaux Dam	•	•
Coxs River Track, Warragamba catchment	•	•
Glen D'Or Homestead	•	•
Grave, Warragamba catchment	•	
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)	•	•
Ooranook Homestead	•	•
Pheasants Nest Weir	•	
Prospect Reservoir and surrounding area	•	•
• Prospect Reservoir Valve House	•	•
Stone house, Warragamba catchment	•	
Upper Canal System	•	•
Virginia Homestead	•	•
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 Weir	•	
Wingecarribee Swamp		•
Woronora Dam	•	•

3) CATCHMENT MANAGEMENT AND PROTECTION

THE YEAR AHEAD

Implementation of the Asset Management Strategy will be ongoing and the coming year will see the completion of various plans of management for catchment lands, property, office accommodation and, importantly, infrastructure assets. Development, testing and application of Standard Operating Procedures will form a critical part of the SCA's integrated management system and ensure consistency of operation and continuous improvement.

The SCA's commitments to the NSW Dams Safety Committee will be realised, with the completion of Dam Safety Emergency Plans and Operations and Maintenance Manuals for high and significant hazard dams. The SCA is progressing with five yearly Surveillance Reports for all of its 21 prescribed dams, and has gained Committee approval for its five yearly Surveillance Reports for Nepean Dam and Broughtons Pass Weir. Major periodical maintenance regimes are to be developed for all assets and a review of the current contract for mechanical and electrical maintenance will be undertaken. The Capital Works Program approved for the year, mainly involving upgrades to existing infrastructure, will need to be managed closely to ensure successful completion.

The Asset Management Strategy addresses the lifecycle of assets and will undergo annual review to ensure it remains contemporary and addresses the impacts of a changing environment. Ultimately, best practice asset management which links finance, physical assets, technology and people performance, will be a cultural feature of the SCA operating strategy.

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. To achieve this the SCA has established a Catchment Protection Division which is specifically responsible for:

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

In its first year of operation, the SCA has worked with other government agencies and local councils and has delivered a number of initiatives to help manage and protect the catchments. Some of these initiatives, coupled with ongoing management activities, are highlighted below:

3.1 DEVELOPMENT CONTROL AND IMPLEMENTATION OF SEPP 58

The administration of SEPP 58 was transferred to the SCA on 31 March 2000. In its first year of operations, 650 applications were received and reviewed by the Authority. The majority of these applications were for unsewered residential development. Wherever possible, the SCA has ensured that appropriate controls are incorporated into developments to protect water quality. Catchment Protection Officers have also undertaken compliance monitoring to support the SCA's concurrence role under SEPP 58.

3.2 CATCHMENT OPERATIONS

The land owned by the SCA, within the Special Areas and elsewhere in the water supply catchment, is managed by two geographically based teams in the north-west at Warragamba and in the south-east at Cordeaux. They are responsible for ensuring the SCA complies with its legislative responsibilities as a landholder and promotes



3.5 CATCHMENT PROTECTION AND IMPROVEMENT GRANTS PROGRAM

Recognising the important contribution to be made by people living and working within the catchments, the SCA established an annual Catchment Protection and Improvement Grants Program. Grants of up to \$8 000 are provided to support community projects which are consistent with the SCA's objectives of improving catchment health.

In the past year the SCA received 42 applications for funding, and after assessing these against its objectives, awarded funds to 26 applicants to a total value of \$178,000. The projects cover a broad range of catchment improvement initiatives including weed control and bush regeneration, clearing rubbish, fencing to prevent stock access to waterways, rehabilitation and restoration of riverbanks, and revegetation to prevent erosion and sediment entering waterways (see Appendix 4 for a full list of projects and recipients).

3.6 CATCHMENT PROTECTION SCHEME

The SCA continues to support the Catchment Protection Scheme, which provides funding to landholders for catchment improvement works and extension activities. The scheme is a joint program between the Department of Land and Water Conservation (DLWC), SCA and landholders. It is managed and administered by the DLWC. In its first year of operations, the SCA has contributed \$620,000 to the scheme.

3.7 ENVIRONMENTAL INDICATORS

The Authority released a draft list of Environmental Indicators for public exhibition on 20 April 2000. The indicators will measure changes in the state of the catchments and the environmental impacts of the Authority's operations and activities. The SCA must commence monitoring of the indicators and compiling data on them from 1 March 2001. Indicators of Ecologically Sustainable Development (ESD) are also being developed by the SCA. Once the Board has approved these indicators they will be reported in the SCA's Annual Environment Report for 2001.

"best management" techniques. 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.

3.3 EXTENSION ACTIVITIES

The SCA has a vital outreach program across the 16,000 square kilometre water supply catchments. To help encourage improvements in land management techniques and industrial practices by the catchment community, Catchment Protection Officers have initiated links with Landcare and other community groups, as well as local councils, industries and individual landholders. They have been highly visible at field days and local shows and have been active in distributing catchment information.

3.4 CATCHMENT ENHANCEMENT AND PROTECTION PROGRAM

During the year the SCA committed \$2.7 million to on-ground catchment protection activities. The funds will be spent on 33 projects which meet strategic priorities set by the SCA Board as a result of the findings of the first catchment audit.

The projects fall into the following broad categories:

- controlling sewerage effluent discharge
- managing other discharging activities
- improving urban stormwater quality
- enhancing riverine ecosystems
- outreach, research and monitoring
- integrating SCA assistance schemes.

The projects will be delivered through contracts, joint project agreements with other organisations and via in-house works programs. Most of the projects will be completed by the end of 2001.

THE YEAR AHEAD

The SCA has made significant progress in achieving its catchment protection responsibilities over the last year. In the coming year the addition of about 20 new staff and the establishment of three new regional offices, in Goulburn, Moss Vale and the Blue Mountains, will enable the SCA to work more effectively with local communities on a range of important catchment protection and improvement initiatives.

The challenges facing the SCA over the coming twelve months, include:

Regional Environment Plan (REP)

The Department of Urban Affairs and Planning is in the process of preparing a draft REP for public exhibition. It will be implemented by the SCA. The REP will impose stricter regulations on both existing and new developments in the catchments to protect drinking water quality. It places a range of new obligations upon the SCA. As a consequence, the Authority is actively developing the strategies and plans that will enable it to meet those obligations.

Sydney Water Catchment Management (General) Regulation 2000

The SCA has received the Minister's approval to exercise powers under this regulation in the Special Areas and controlled areas of the catchments. The regulation controls public access, conduct and activities in those areas. The regulation will enable SCA officers to issue penalty notices.

Sydney Water Catchment Management (Environment Protection) Regulation 2000

The SCA is working closely with the EPA to develop a new regulation which will cover all of the SCA's area of operations. The proposed regulation would enable the SCA to exercise certain powers under the Protection of the Environment Operations Act 1997 in relation to pollution sources impacting on water quality in catchment areas. The SCA's regulation will not apply to premises and activities covered by an environment protection licence from the EPA.

Geographical Information System (GIS)

In order to use GIS technology to its potential, centralisation of the SCA's GIS data and an upgrade of its GIS infrastructure is required. The SCA is committed to upgrading its current GIS system and expects to become a lead organisation in the coordination of catchment oriented data.



4) PROTECTING AND ENHANCING WATER QUALITY

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

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.

When the Sydney Catchment Authority was created in July 1999, the complex, multi-purpose water quality monitoring network maintained by Sydney Water Corporation (SWC) was divided between the SWC and the SCA.

The monitoring accords reached between the SCA and SWC have functioned well in the SCA's first 12 months, with the transfer of information between the two organisations proceeding effectively and no major problems occurring.

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:

- 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
- selection of 'best water' for delivery to SWC and other customers
- assessment of sediment loads entering reservoirs
- assessment of contaminant loads entering reservoirs
- modelling for water supply strategic planning
- assessment of impacts on downstream communities
- long-term viability of storages
- evaluation of long-term land use and other changes

- long-term trends in water quality
- environmental indicators reporting
- 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 during normal flow conditions and by automatic samplers during freshes (higher inflow periods) and floods. There are 26 sites in the catchments that are subject to this sampling regime. The variables monitored include temperature, conductivity, dissolved oxygen, pH, turbidity, suspended solids, nutrients, metals, chlorophyll and coliforms. Table 12 in Appendix 1 shows water quality data for 12 of these sites.

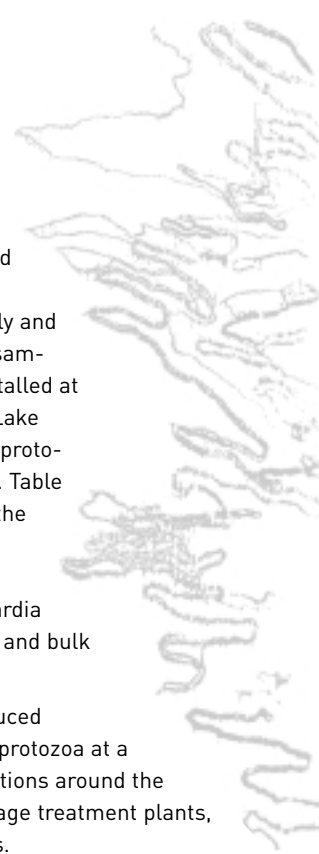
Information on the quality of the water in the storage dams is collected monthly at 12 sites and on a fortnightly basis at seven locations. In addition, during the summer, information on water quality is collected on a weekly basis at a number of locations that have the potential to suffer from algal bloom formation. The variables measured in the lakes are similar to those measured in the catchment, with the addition of full algae identification and counting. Median water quality parameters are shown in Table 13, Appendix 1.

Some water quality measurement in the rivers downstream of the dams is also undertaken for environmental flow planning. Sydney Water Corporation also uses the information for waste water strategic planning.

4.2 SPECIAL PROGRAMS

In the wake of the water contamination incidents in 1998, the SCA has supplemented routine monitoring with special programs to deal with protozoa and other poor water quality incidents.

Protozoa (Cryptosporidium and Giardia) are now monitored daily 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 10 in Appendix 1 shows the number of samples 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 which test positive, are checked by another independent laboratory, the Australian Water Quality Centre in South Australia.

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.

4.3 ENVIRONMENTAL FLOW TRIALS

The analysis of data collected during the experimental environmental flows on the Hawkesbury-Nepean River during 1998-99 is nearing completion. The results of the flows program will be considered by the recently announced Hawkesbury-Nepean River Management Forum, which will be responsible for developing flow rules for the Hawkesbury-Nepean River. A performance-monitoring program for environmental flows for the Woronora River is currently being developed with assistance from the Cooperative Research Centre for Freshwater Ecology.

Between December 1999 and June 2000, the SCA released over 1,000 million litres of water into the Cataract River, downstream of its weir at Broughtons Pass. This water was provided to allow the Department of Land and Water Conservation to monitor the effectiveness of environmental protection works installed in the river. At the same time the water contributed to general flows in the river and maintaining stream quality.

4.4 RISK MANAGEMENT

The SCA has prepared a Draft Pollution Source Risk Management Plan to help it identify and assess pollution sources in the catchment area, and to evaluate the risks to drinking water quality and catchment health. The plan will be exhibited for public comment in the latter half of 2000, and is due to be finalised by January 2001.

It will:

- provide a risk-based framework for prioritising and undertaking on-ground actions to address identified pollution sources
- encompass a five year time-frame and will be revised in response to the findings of the next catchment audit, to be completed by December 2001, and
- provide valuable information that will assist with the regional environment plan currently being prepared for the drinking water catchments.

5) RESEARCHING THE CATCHMENTS

THE YEAR AHEAD

The SCA's new Operating Licence requires monitoring of specified pesticides, chemicals and radiological compounds in the inflows into the water filtration plants of all customers. Preliminary discussions have been held with NSW Health, and a program for monitoring these compounds is currently being developed. This addition to the current monitoring program will be implemented in 2000/2001.

The SCA's water management licence from the Department of Land and Water Conservation is currently being drafted and is due to be complete by December 2000.

Other water quality monitoring issues currently in progress or under discussion include:

- monitoring of pesticides and herbicides in the major inflows into Lakes Burragorang and Nepean using lipid sacs
- expansion of on-line monitoring systems to include dissolved oxygen in the lakes
- introduction of on-line monitoring for nutrients in the river systems
- expansion of telemetry systems to access remote stations within the Warragamba catchment
- increased monitoring at specific locations for a greater range of compounds.

It is anticipated that water quality information collected by the SCA will continue to be of interest to the community, local councils, students, consultants, environment agencies and other stakeholders. For more detail refer to our separate water quality 'Monitoring Program Report'.

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

OVERVIEW

The SCA is the lead agency for research on the drinking water catchments of the Sydney region. Research is used to understand how activities in the catchment affect water quality and the ecological integrity of the catchments themselves.

A research strategy has been developed that includes a range of projects. Some will investigate the origins of factors impacting on water quality, such as the various land uses in the catchments. Others will seek to improve the SCA's understanding of the ecological processes taking place on the land and water of this region to ensure appropriate management.

5.1 FIRST CATCHMENT AUDIT

One of the SCA's first tasks, and the first significant research task, was to commission an independent review of the health of the catchments for the Minister for the Environment.

The audit was carried out in 1999 by Dr John Williams, Deputy Chief of CSIRO Land and Water. The Minister publicly released the audit report on 4 January 2000. It identified a number of issues to do with the current state of the catchment and has helped the SCA to develop plans and programs to further improve catchment health.

Overall, the audit said the catchments are in 'moderately good' condition, but that existing land uses in the catchments have affected water quality and catchment health. Those land uses include housing, urban centres, agriculture, mining, extractive industry, roads, rail lines, and gas and power lines. The significant effects of those land uses include sewage and stormwater pollution.

5.2 RESEARCH AGREEMENTS AND PROJECTS UNDERWAY

The SCA has a formal research agreement with the Cooperative Research Centre (CRC) for Freshwater Ecology and is negotiating an agreement with the CRC for Water Quality and Treatment. The SCA is also in the process of negotiating a research agreement with the University of Western Sydney.

The SCA is currently funding two research projects at the University of NSW: one looks at the risks to water quality posed by on-site waste management systems, the other looks at the way pathogens are transported through the catchments. These are three-year research projects and will be due for completion in 2003.

The SCA is also working with NSW Fisheries to evaluate the use of high level fishways at Tallowa Dam. The damming of rivers to create water supply reservoirs is important to ensure a reliable water supply for our communities. Unfortunately, the presence of these dams may interfere with the natural migratory patterns of fish that travel up and down the streams. Fishways can be built to allow fish to move safely past the dam.

Research work is also being carried out on Wingecarribee Swamp. After heavy rainfall in August 1998 the swamp experienced a massive collapse sending tonnes of peat into Wingecarribee Reservoir. Wingecarribee is one of Australia's largest peat swamps and provides habitat for certain species classified as endangered or vulnerable. It has significant environmental value. While rehabilitation of some aspects of it may be achievable, restoring the swamp to its former state is not possible.

Research into the swamp is necessary to fill gaps in knowledge about how it works and what activities could be carried out to aid its rehabilitation. Information is being gathered in a variety of ways, including aerial photography, photogrammetric mapping, sediment and core log analysis, water quality and water table monitoring, and expert consultation. These measures will help to build a database of information to improve understanding of the swamp and support possible future stabilisation or rehabilitation works.

A research component will be contained in the revised Plan of Management for the Swamp and the Special Area, which is to be exhibited in the coming year.

THE YEAR AHEAD

The SCA is developing a research program to help better manage water quality and the environment. The program is being developed in consultation with independent experts and environmental groups. Projects will begin after this consultation process is complete in October 2000. It is likely that projects will be developed to further our understanding of issues such as:

- the impacts of recreation on ecology and water quality
- the effect of environmental flow regimes on freshwater ecology, and
- the appropriate indicators for ecological assessment.



6) COMMUNITY EDUCATION AND INFORMATION

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

OVERVIEW

The challenge for the Sydney Catchment Authority is not just to build on the effectiveness of its existing education services at Warragamba Dam, but also to find new ways to work in partnership with other education providers in the catchments.

The SCA recognises that many excellent environmental education initiatives are already in place in the catchments, and that there is a need to support and foster them.

The underlying aim of the SCA's education activity, whether solo or in partnership, is to increase understanding and awareness of the importance of catchment health in maintaining water quality. From this central aim, many other avenues can be explored such as biodiversity, heritage issues, ecological values, and sustainable development.

Through education, it's hoped people will gain greater respect and appreciation for the vital role healthy catchments play in delivering their drinking water, and also a clear understanding of the SCA's role in the managed water cycle.

The SCA is also committed to fostering student knowledge and understanding of the catchments, and offers excellent service to students seeking information and research material for assignments at both the secondary and tertiary level.

6.1 COMMUNITY RELATIONS

In its first year, the SCA Community Relations Program has focused on raising public awareness about the SCA, and giving catchment communities, in particular, a chance to meet SCA staff, ask questions, and find out how they can work with the SCA.

Events and other activities included:

- displays at six rural agricultural shows: Bathurst, Lithgow, Robertson, Moss Vale, Goulburn and Thirlmere, between March and June 2000

- sponsoring and attending World Environment Week displays including SCA 'Catchment Tours' at Warragamba throughout the week
- presenting information on catchment issues to students studying environmental subjects at TAFE and University
- sponsoring the 2000 Hawkesbury Nepean Catchment Management Trust Local Government Environment Awards
- official opening of the Warragamba Dam Auxiliary Spillway Viewing Platform by the Minister for the Environment, the Hon Robert Debus.

SCA publications

The SCA is developing a suite of publications to satisfy the need for information in the community, especially from students. Publications in production include a number of corporate brochures and a series of brochures on the SCA dams and catchments.

The Authority will soon publish an anniversary brochure *Protecting Sydney's Drinking Water Catchments*. This gives the community a snapshot of SCA initiatives and whole-of-government activities to improve the health of the catchments.

The SCA is also working with the CSIRO's Helix Magazine to produce a brochure about the catchments, suitable for younger audiences, and a sponsored article in the October edition of the magazine to coincide with National Water Week, 2000.

SCA Website

The SCA has set up a website to provide basic information and a point of contact for the community. In mid 2000, a brief was developed to redesign the website in order to include more information and to make it easier to navigate. Fresh new content will be developed to reflect the range of activities and information available across the organisation. The revised site will also have a strong focus on education resources for students. A tender for the website redesign should be let in the second half of 2000.

6.2 CATCHMENT EDUCATION

Warragamba Dam Education Centre

The Education Team at Warragamba continues to deliver high-quality catchment education to around 6,000 students from more than 90 education institutions each year, as well as interested members of the public. The Centre offers a high-tech, interactive computer presentation, delivered in the SCA's theatrette, and an interpretive catchment walk.

Visitor attendance for Warragamba is currently down due to the Auxiliary Spillway construction which prevents access to the dam, however figures for the year are:

Primary students	2, 854
Secondary students	2, 281
Tertiary Students	165
VIPs	116
Community groups	31
Total	5, 447

In addition to face-to-face delivery, SCA education staff have sent out around 600 information packages to students and members of the public, or referred callers to relevant websites and agencies – helping people to do their own research about the catchments and bulk water supply system.

The SCA will continue to fit the needs of the formal education system wherever possible, offering excursions and information packages that feed into the current curriculum.

Streamwatch

The SCA funds the Hawkesbury-Nepean Catchment Management Trust to deliver the Streamwatch program to 29 schools and community groups in the catchments (these groups monitor water quality in their local streams and creeks). SCA Communications staff and Catchment Protection Officers actively participate in the program, offering hands-on support to groups and encouraging new groups to join.

The SCA is currently working on increasing Streamwatch coverage in the Shoalhaven area.



Mobile Education Unit

In early 2000, research and planning for a new *Mobile Education Unit* got underway. It is expected the unit will be operational by 2001. The unit will allow the SCA to take professional education and information services into all areas of the catchments, targeting both schools and the general community, with tailored programs and activities. SCA education staff will consult with fellow educators in a range of other agencies in developing content for the unit.

New Visitor Education Centre for Warragamba Dam

Also in early 2000, planning began for the rehabilitation of the visitor facilities at Warragamba Dam. The SCA has established a working group to redevelop the site and lead the detailed planning for the educational component. This project provides an exciting opportunity to improve on an existing product and provide state-of-the-art education at one of the SCA's best-known facilities.

Planning for the recreational and educational aspects of the centre will involve extensive community and stakeholder consultation.

6.3 MEDIA

The SCA had its genesis in one of the most publicised disruptions to essential services experienced in Australia. Intense media coverage during and after the 1998 water quality incidents - at local, state, national and international levels - has kept water quality continuously in the media spotlight.

The SCA has taken a proactive approach to media relations. SCA staff developed an information kit which was personally delivered to key catchment media and distributed broadly amongst metropolitan print and electronic media.

In the ensuing months, the SCA has generated a steady stream of positive media releases highlighting a broad range of SCA and inter-agency activities, events and personnel. These have been taken up in media throughout the catchment and beyond.

The nature of the SCA's role in the catchments, particularly its regulatory and development control functions, has been the subject of lively debate in regional media.

The SCA has responded regularly to regional media attention on a variety of issues including bulk water pricing, SCA budget and role, riparian fencing, recreational use of waterways, rehabilitation of Wingecarribee Swamp, and the future of Welcome Reef Dam.

Metropolitan media attention has focused on funding issues, the results of the first Catchment Audit, and water quality monitoring.

THE YEAR AHEAD

The year ahead promises to be busy for both community relations and catchment education. Activities already planned include:

- jointly hosting a Sydney Catchments Environmental Educators Forum with the EPA
- attending a schedule of rural shows and field days between July and December 2000
- sponsoring and displays at Macarthur Waste Board's Chemical Collection Days, Wollondilly Landcare Forum, and Southern Highlands Biodiversity Day
- Water Week 2000 activities in October 2000
- undertaking community market research to help understand and meet information needs
- updating the SCA's website
- developing and launching the SCA mobile education unit
- developing an SCA-wide interpretive planning strategy to inform the redevelopment of the Warragamba Visitor Centre and prioritise interpretive opportunities for other SCA sites
- official opening of new SCA offices in Goulburn, Moss Vale, and the Blue Mountains.

7

COMMUNITY CONSULTATION AND FEEDBACK

OVERVIEW

The way the community interacts with the catchments in which they live and work has a big impact on catchment health. 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 clean water.

The SCA has already developed partnerships with the communities who live and work in the catchments, with state agencies and local governments, and other interested groups. The SCA will continue to work cooperatively with these groups to achieve the best outcomes for the catchments.

7.1 CONSULTATIVE COMMITTEES

The SCA is investigating ways to encourage greater community involvement in its activities. As a result, work is now underway to set up two Regional Catchment Consultative Committees. The SCA is also establishing an Expert Panel and a Local Government Reference Panel to help with management issues in the catchment area and to receive feedback on matters of concern. The committees will comprise community representatives from local environmental groups, peak environment groups, catchment management groups, public health experts, business groups, farming interests, local government and customers.

All four committees will be established in the second half of 2000, and will meet throughout the year.

7.2 EXHIBITION OF PLANS AND REGULATIONS

The SCA has had a busy first year developing the tools necessary to do its job and seeking public feedback on its activities. Documents on public exhibition for comment during the year included:

- Draft Special Areas Strategic Plan of Management
- Draft Sydney Water Catchment Management (General) Regulation 2000
- Draft Environmental Indicators for the Sydney Catchment Authority.

7.3 WARRAGAMBA AUXILIARY SPILLWAY PROJECT

An essential component of the construction of the new \$150 million spillway at Warragamba Dam is the successful partnership between the SCA and the local community.

This partnership is facilitated through an independently chaired Community Consultation Committee supported by a Community Consultation Coordinator and an established Community Liaison Office in the township.

The SCA is implementing a Communication Plan for the project employing a range of strategies including regular meetings and briefings, complaint registration and resolution, community noticeboard and newsletters, letterbox drops, site tours, special events, and open days. The plan is working well to ensure open, two-way communication between the community and the SCA, and to minimise the impact of the project on local people.

During 1999-2000, consultation has focused on community concerns about the impact of noise and vibrations associated with the blasting and excavation stage of the project.

As the project enters its second year, the SCA is actively managing community concerns about the possible impact of the next significant construction stage, increased truck movements associated with the construction of the spillway.

7.4 COMPLAINTS HANDLING

The SCA has established a Complaint Handling Policy and Procedure. It aims to resolve complaints from customers and the community by providing a solution, or negotiating an agreed course of action, with the complainant. The SCA's policy is to respond to any complaint in a prompt, efficient and fair manner, to ensure that customer and community satisfaction is maintained, and that where appropriate, its business processes are improved.

The new complaints procedures are supported by a computer based complaints handling system.

During the period 1 July 1999 to 30 June 2000 the Sydney Catchment Authority received a total of 157 complaints. Of these, 138 complaints were related to the construction of the Warragamba Dam Auxiliary Spillway.

The categories and numbers of complaints received from the community during 1999-2000 were:

- customer service – 1
- environmental and heritage issues – 95
- liability claims (damage) – 36
- picnic area facilities – 11
- staff/contractors – 14.

As at 30 June 2000 there were 15 complaints still to be resolved:

- environmental and heritage issues – 9
- liability claims (damage) – 3
- picnic area facilities – 1
- staff/contractors – 2.

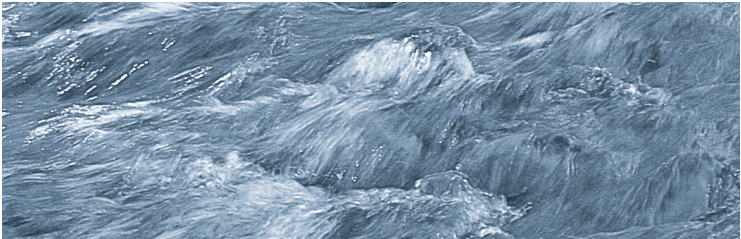
THE YEAR AHEAD

Training for all SCA staff in the new Complaints Handling Policy and Procedures will be complete early in the new financial year.

A brochure is being prepared to inform customers and the community about our complaints handling policy. In the meantime, the Sydney Catchment Authority's website: www.sca.nsw.gov.au explains the SCA complaint and compliment procedures.

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

- Draft Wingecarribee Swamp and Special Area Plan of Management
- Draft Pollution Source Risk Management Plan
- Draft Ecologically Sustainable Development Indicators
- Draft Sydney Water Catchment Management (Environmental Protection) Regulation
- Draft Sydney and Adjacent Regional Centres Drinking Water Catchments Regional Environmental Plan
- Draft Sydney Catchment Authority Environmental Plan



8) HUMAN RESOURCES

OVERVIEW

One of the SCA's corporate values is caring for and valuing employees. We value our people by:

- providing a high quality work environment where productivity, creativity and personal and professional growth can flourish
- valuing diversity and the open exchange of ideas and information
- conducting ourselves with honesty and integrity and treating each other fairly
- fostering a culture of excellence, highly supportive of employee growth and development
- demonstrating a commitment to safety and public health
- striving to achieve equal opportunities and equitable outcomes for fellow employees, stakeholders and members of the community
- treating people as individuals with rights, and with courtesy, respect and discretion.

To facilitate the effective management of our people, the SCA manages:

- the health, safety and welfare of our workers
- employee relations and remuneration
- integration of quality in the SCA's business processes
- organisational development
- human resources policies and procedures.

8.1 PEOPLE PROFILE

The SCA employs a diverse group of people with a wide range of skills and expertise. Much of the early work-force and divisional structure was transferred from relevant areas in Sydney Water Corporation. The SCA has since restructured its Divisions in order to best meet its objectives, and has created and filled new positions necessary to its long-term success.

The following figures and tables provide some insight into our people.

TABLE 6: CATEGORIES OF SCA STAFF

Category	30th June, 2000
Chief Executive Service	1
Senior Executives	13
Senior Managers/Specialist	13•
Award Staff	128*
Total Numbers	155
Total FTE Numbers	146.6

- Includes 3 women senior manager/specialists. There are no Senior Executive women.
- * Includes 13 casuals with a full time equivalent (FTE) of 4.6 employees

TABLE 7: NUMBER OF CES/SES POSITIONS

CES/SES Equivalents	1999/00
Level 8	0
Level 7	0
Level 6	1
Level 5	1
Level 4	0
Level 3	1
Level 2	4
Level 1	7
Total	14

FIGURE 5: SCA STAFF AGE STATISTICS

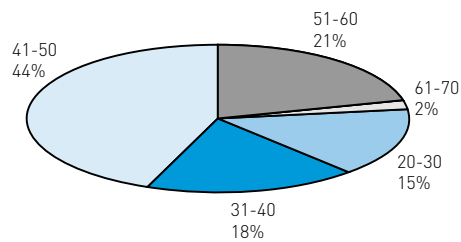
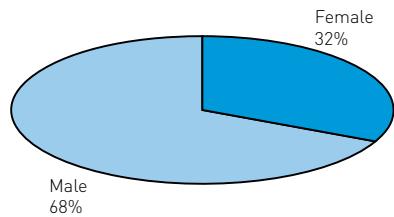


FIGURE 6: SCA STAFF GENDER STATISTICS



8.2 OCCUPATIONAL HEALTH, SAFETY AND REHABILITATION

The SCA has a very positive approach to occupational health and safety with two very active OH&S committees working on developing effective safety systems. This approach has led to a number of excellent preventative strategies aimed at building a positive safety culture. Included in these are the SCA's OHS&R System Manual and leading edge procedures, such as the permit to work system, or regular safety auditing program.

To complement its success in managing safety the SCA has adopted a similar approach to reinforcing the importance of employee welfare and job satisfaction. Two examples of this approach were the skin cancer screening program in which most employees had their skin checked, and an employee Health Fair - a health and well-being open day staffed by doctors, exercise physiologists, dietitians, masseurs and psychological counsellors.

TABLE 8: SCA OHS&R RESULTS 1999-2000

Days lost to injury	1
Total direct cost of injuries 1999-2000	\$1124
Injury free days 1999-2000*	123
Injury frequency rate*	6.99
Injury incidence rate*	12.50
Serious injuries (>7 days off)	
Injuries resulting in lost time or >\$500 cost	2
Dangerous occurrences reportable to WorkCover	1
Prohibition/improvement notices	Nil
WorkCover fines	Nil

TABLE 9: OHS&R RESULTS - CONTRACTORS EMPLOYED ON SCA PROJECTS 1999/2000

Days lost to injury	32
Dangerous occurrences reportable to WorkCover	3
Injuries resulting in lost time	8
Prohibition/improvement notices	Nil
Serious injuries (>7 days off)	3
WorkCover fines	Nil

* Calculation based on all injuries resulting in time lost or costing >\$500 or more. Source: SCA, 2000

Over the financial year there were 13 compensatable injuries suffered by employees. Four of these were recurrences of injuries that originally occurred while working for a previous employer and were not related to work performed at SCA. Of the remaining nine compensatable injuries, three occurred during journeys to and from work and two were related to out-of-hours sporting activities. Only four compensatable injuries were suffered as a result of work, one of which cost in excess of \$500 and as such will be counted against the SCA in future workers' compensation premium calculations. No work related illnesses were recorded for this period.

Over the year the SCA had an extremely low rate of only 0.0028% of time worked lost to injury. These low rates of injury, time lost and the low costs associated with these injuries will bring about significant reductions in workers' compensation premiums over the next two financial years.

8.3 CULTURAL DIVERSITY

This section deals with data that was volunteered by staff via Equal Employment Opportunity (EEO) surveys regarding cultural diversity in the workplace.

- **Aboriginal & Torres Strait Islanders**
There is one Aboriginal employee of the Authority.
- **People from minority groups**
This category relates to employees who are from racial, ethnic, ethno-religious minority groups. The current data indicates that the Authority employs 20 people in this category.
- **People with English as a second language**
There are 16 people whose language first spoken as a child was not English.
- **People with a disability**
There are nine people who have a limitation or restriction through a physical or other disability.

8.4 DISABILITY PLANS

In the year ahead the SCA will develop a three-year Action Plan, in line with NSW Government Disability Policy.

This plan will identify any barriers that inhibit or prevent people with disabilities accessing the SCA's services.

It will incorporate the following principles:

- People with disabilities are full and valued members of the community
- People with disabilities will have access to services provided to the general community
- In the provision of services to people with disabilities the focus will be on the whole of life needs of individuals in their own communities
- Better outcomes for people with disabilities will result

- from co-operation among service providers, with the active participation of people with disabilities
- Services will support and be sensitive to the diversity of people with disabilities
 - The unique needs of people with disabilities of Aboriginal and Torres Strait Islander background will be recognised
 - The legal rights of people with disabilities will be recognised and protected.

Preparation of the action plan will involve committee and focus group meetings. People with disabilities will be invited to contribute to its development.

The SCA has targeted "reasonable adjustment" in employment, recruitment and selection that provides the opportunity for staff with disabilities to identify any adjustments needed in their workplace. These can include: changing car seats and chairs, adjusting the height of desks, and using ergonomic aids.

8.5 NSW GOVERNMENT ACTION PLAN FOR WOMEN

The NSW Government's Action Plan for Women includes strategies that focus on women with least access to social and economic resources.

The SCA supports the objectives of the 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 micro-economic reform
- promote the position of women in all aspects of society
- promote access and successful outcomes for women in all parts of the education and training system
- improve the health and quality of life of women in NSW.

Initiatives supported by the SCA that impact upon the recruitment, employment, promotion, development and working environment of women are:

Spokeswomen's Group: This group provides SCA women with opportunities to develop and promote their skills



and knowledge. In July 2000 two spokeswomen will be appointed to represent all divisions in the SCA.

Flexible Work Practices: The SCA encourages flexible work practices. These are documented in our People and Quality Manual. A number of women are currently working part-time.

Recruitment and Selection: The SCA policy states that at least one selection committee member must be female.

8.6 ETHNIC AFFAIRS

The SCA policy for recruitment and selection states that when setting up selection committees, members should preferably represent a variety of backgrounds. The inclusion of one or more people from a racial, ethnic or ethno-religious minority group is recommended. This is important when the nature of the position or the background of likely applicants requires an awareness and appreciation of a particular community or communities.

8.7 OVERSEAS VISITS BY SCA STAFF

Name: Dr Daniel Deere
Division: Catchment Protection
Date: 30 June to 7 July 2000
Destination: Paris
Conference: 1st Biennial International Water Association Meeting & 10th Health Related Water Microbiology Symposium.

Name: Mr Adrian Williams
Division: Dam Safety and Technical Services
Date: 19 September to 2 October 1999
Destination: Turkey
Conference: International Conference on Large Dams

8.8 SCA STAFF ABOVE SES LEVEL 5:

The SCA has two executive officers at or above SES Level 5. Their positions and performance against specific criteria are outlined below.

Performance Report on Executive Officers at or above Level 5

Name	Jeff Wright
Position & Level	Chief Executive CES Level 6
Total Remuneration Package	\$202,000
Bonus	\$1,500
Period in Position	Full Year

A summary of criteria used to assess the Chief Executive's performance follows:

Strategic Direction and Priorities

Established strategic directions and priorities that were approved by the Board and the Minister. These priorities reflect the whole-of-government approach necessary to successfully manage issues affecting water quality. They were promulgated widely throughout the organisation, and to appropriate external stakeholders. They formed part of the Minister's public response to the Catchment Audit. A detailed draft action plan was prepared.

Financial Management

Developed a Statement of Financial Framework that was approved by the Minister and the Treasurer on the recommendation of the Board, with careful attention being given to appropriate financial performance indicators. The organisation's finances were carefully managed so as to deliver the required financial outcomes.

Bulk Water Agreement

Developed an agreement under Section 22 of the Sydney Water Catchment Management Act 1998 for the supply of water by the Authority to Sydney Water. After public exhibition and review of the Agreement by the Independent Pricing and Regulatory Tribunal, it was signed on 15 September 1999.

Water Quality

Schedule 2 of the SWCM Act states that the Chief Executive's performance criteria must include criteria that requires improvement of the quality of the water in Catchment areas.

Accordingly, the SCA has commenced an extensive program of water quality monitoring within the major storages, and a catchment protection and enhancement program to protect and enhance water quality. Developed new regulations to enable the SCA to undertake an appropriate regulatory role within the catchments.

Catchment Management

Supported the Board in determining a set of eight strategic priorities for the Authority (see Report from Chair and CEO). Detailed action plans were then developed to give effect to the strategic priorities which were incorporated into the organisation's Business Plan.

SEPP 58

Amendments to SEPP 58 were achieved and gazetted allowing the SCA to effectively administer the SEPP and substantially reduce the turnaround time for processing developments requiring concurrence. Before the transfer, the SCA helped the Department of Urban Affairs and Planning (DUAP) administer the SEPP. The SCA also participated in a number of forums assisting DUAP to prepare a draft Regional Environment Plan.

Catchment Audit

Managed arrangements for undertaking the first audit of the water supply catchments. The Audit was completed according to the time frame required by the SWCM Act 1998. The Audit report was tabled in Parliament as required by the Act and publicly released on 4 January 2000. The report is available on the SCA's web site. More than 500 hard copies have been distributed to key stakeholders and the general community.

Memoranda of Understanding

Prepared Memoranda of Understanding under Section 36 of the Sydney Water Catchment Management Act 1998. They were of a nature referred to in the Operating Licence and were completed within six months of the granting of the Licence.

The three Memoranda of Understanding were developed in line with the statutory deadline and signed in December 1999 between SCA and:

- EPA
- NSW Health
- Water Administration Ministerial Council (DLWC)

The SCA continues to meet its obligations under the Memoranda and to participate in combined officers group meetings with NSW Health, DLWC and EPA.

Capital Works

Developed a 10-year coordinated capital works program, encompassing 54 projects (including the Warragamba Auxiliary Spillway) at a total cost of \$268.13M. An average annual expenditure of \$12M (excluding the Auxiliary Spillway) is anticipated. The SCA Board submitted the Capital Works Program on 11 February 2000, and the Minister approved it shortly after.

Asset Management Strategy

In line with the Government's Total Asset Management System, developed a sound, comprehensive and fully integrated Asset Management Strategy to help the Authority meet its obligations in managing its extensive system of critical public assets.

Incident Management

Completed the first edition of the SCA Incident Management Manual as required under Clause 6.7 of the SCA's Operating Licence to minimise potential risks to human health from water supplied to its customers by the Authority. Favourable comments were received and were incorporated in the final plan that was delivered to the Licence Regulator on 29 June 2000.

Communication and Consultation

Undertook extensive consultation with key stakeholders, in particular local authorities within catchment communities and other agencies with a role or interest in water quality issues. Promoted the SCA and its objectives in a range of forums, seminars and conferences both locally and interstate. Supported the establishment of a sound community relations and education program and actively participated in the SCA's media relations program.

Name	Adrian Williams
Position & Level	General Manager Dam Safety & Technical Services SES level 5 equivalent
Total Remuneration Package	\$154,000
Bonus	\$7000
Period in Position	Full Year

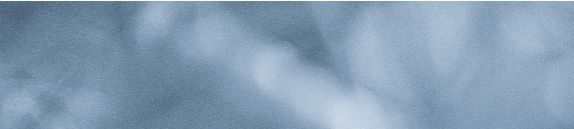
A summary of criteria used to assess the General Manager's performance follows:

QMS Certification

Successfully maintained compliance of the Quality Management System of the Dam Safety Business Unit. External audit found that the system continues to comply with the requirements of ISO9001 with no non-conformances found.

Dam Surveillance Reports

Led the development of Dam Surveillance Reports for Nepean Dam and Broughtons Pass Weir. Reports are in progress for Avon, Wingecarribee and Cataract Dams and Kangaroo Pipeline Control Structure. Dam Surveillance Reports for the 21 prescribed SCA dams are being prepared at five-yearly intervals for submission to the NSW Dams Safety Committee.



Dams Safety Committee (DSC)

- Provided effective representation of the Authority on the main NSW DSC. The DSC administers the NSW Dams Safety Act and at present, 260 dams in NSW are prescribed under the Act.
- Provided leadership in the industry through chairmanship of the Australian National Committee on Large Dams (ANCOLD). ANCOLD co-ordinates national activities relating to investigation, design, construction, operation, maintenance and safety improvements for dams.
- Performed the important position of chairman of the Committee on Dam Safety of the International Committee on Large Dams (ICOLD). Of the 81 ICOLD participating countries, 27 are members of that committee. The primary task of the committee is to prepare guidelines on risk assessment for dams. The target date for completion of the guidelines is November 2001.
- Provided input into international issues as ICOLD's Vice President, Africa-Australasia Zone, for a three-year term. The ICOLD executive comprises a president, secretary-general and six vice-presidents. It co-ordinates international activities associated with dams.

Provision of Services

Effectively led the activities of the Division in the provision of services to the organisation such as annual inspections, dam safety reviews, capital works support, client representation and program management.

Coal Mining

Effectively led the rigorous assessment of the applications for mining in the vicinity of the Authority's dams, water delivery infrastructure and storages.

Energy Management

Led the development of the Authority's Energy Management Policy and Plan for 2000/01. The plan sets out a program and timetable addressing the Authority's Energy requirements under its Operating Licence and the NSW Government's Energy Management Policy.



(financial statements)

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SYDNEY CATCHMENT AUTHORITY
INCOME & EXPENDITURE STATEMENT

For the Period Ended 30 June 2000

	Note	1999-2000 \$'000
INCOME		
Water Sales	2	117,231
Ancillary Services	3	2,599
Investment Income	4	1,648
Total Income		121,478
EXPENDITURE		
Employee Related	5	10,507
Contractors	6	18,839
Consultants		179
Equipment		800
License Fees		1,419
Materials		2,875
Marketing		330
Administration	7	3,117
Energy		277
Financing Charges	8	10,313
Information Management	9	701
Insurance		1,441
Property	10	1,519
Transport		1,174
Taxes	11	1,874
Depreciation	12	6,233
Total Expenditure		61,598
OPERATING SURPLUS before Income Tax		59,880
Income Tax Expense Equivalent	13	21,100
OPERATING SURPLUS after Income Tax		38,780
Accumulated Surplus 2 July 1999	20	-
TOTAL AVAILABLE FOR APPROPRIATION		38,780
Dividend to State Government	1 (o)	10,600
ACCUMULATED SURPLUS 30 June 2000		28,180

[The accompanying notes form part of these statements]



SYDNEY CATCHMENT AUTHORITY
BALANCE SHEET

As at 30 June 2000

	Note	30/6/2000 \$'000
ASSETS		
Current Assets		
Cash	27	1,440
Investments	14	41,893
Receivables	15	10,474
Prepayments	22	1,864
Total Current Assets		55,671
Non Current Assets		
Plant and Equipment	16(a)	347
Land and Buildings	16(b)	130,797
System Assets	17	547,348
Future Income Tax Benefit		1,580
Total Non Current Assets		680,072
TOTAL ASSETS		735,743
LIABILITIES		
Current Liabilities		
Creditors	18(a)	49,743
Borrowings	18(b)	8,251
Provision for Employee Entitlements	18 (c)	2,046
Total Current Liabilities		60,040
Non Current Liabilities		
Borrowings	19(a)	152,322
Provision for Employee Entitlements	19(b)	3,470
Deferred Income Tax	19(c)	85
Total Non Current Liabilities		155,877
TOTAL LIABILITIES		215,917
NET ASSETS		519,826
EQUITY		
Accumulated Funds	20	519,826
TOTAL EQUITY		519,826

[The accompanying notes form part of these statements]

SYDNEY CATCHMENT AUTHORITY
STATEMENT OF CASH FLOWS

For the Period Ended 30 June 2000

	Note	1999-2000 \$'000
CASH FLOWS FROM OPERATING ACTIVITIES		
Inflows		
Cash Receipts Sydney Water		106,913
Cash Receipts Other		2,462
Interest Received		1,648
		111,023
Outflows		
Employee Related		(10,737)
Other		(23,894)
		[34,631]
Net Cash Provided by Operating Activities	28	76,392
CASH FLOWS FROM INVESTING ACTIVITIES		
Outflows		
Purchase of Property, Plant and Equipment		(32,676)
		[32,676]
Net Cash Used on Investing Activities		[32,676]
CASH FLOWS FROM FINANCING ACTIVITIES		
Outflows		
Financing Charges		(8,403)
		[8,403]
Net Cash used on Financing Activities		[8,403]
Net Increase/ (Decrease) in Cash Held		35,313
Opening Cash and Cash Equivalents	29	8,020
CLOSING CASH AND CASH EQUIVALENTS	27	43,333

[The accompanying notes form part of these statements]

NOTES ACCOMPANYING AND FORMING PART OF THE FINANCIAL STATEMENTS

For the Period Ended 30 June 2000

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 Authority and reported in its financial statements for the year 1998/99 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. These financial statements cover the period 2 July 1999 to 30 June 2000.

The assets and liabilities transferred to the Authority are disclosed in Note 29.

1 SUMMARY 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 (General) Regulation, 1995. 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 and Treasurer's Directions. The expense for certain superannuation schemes (i.e. Basic Benefit and First State Super) is calculated as a percentage of the employees' salary. For other superannuation schemes (i.e. State Authorities Superannuation Fund and State Authorities Superannuation Scheme), the expense is calculated as a multiple of the employees' superannuation contributions.

At 2 July 1999 an amount of \$11.2 million was transferred from Sydney Water Corporation to Sydney Catchment Authority representing the fully funded superannuation liability in respect of staff transferred. This transfer took place within the Superannuation Administration Corporation. Refer to Note [22].

(d) Insurance

The Authority is responsible for arranging all its own insurance. Since both Sydney Water Corporation and the Authority have common liability exposure, for financial and commercial reasons, the levels of insurance in certain areas are set in conjunction with each other. The Insurance covers Property & Business Interruption, Motor Vehicles, Compulsory Third Party, Travel, Personal Accident and Sickness, General Legal Liabilities, Public and Product Liability, Professional Indemnity, Contract Works, Construction Risks, Workers Compensation, and Statutory Liability.

(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 invest-

ments 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 Price Waterhouse Coopers, IPART, and Sydney Water Corporation. The value fell between the historical net book value of \$480 million and the revaluation net book value of \$1,653 million. 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 valuation project, which is in progress, involves the determination of Asset values on a segmented basis and will be completed in March 2001.

Asset lives and depreciation are currently based on the assumption of wear and tear rather than condition-based. However, the Authority is conducting a condition-based assessment of asset lives. When implemented, this may impact on asset values and depreciation charges for some classes of 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) Borrowing

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 Income and Expenditure Statement.

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 Income and Expenditure Statement as part of the Authority's financing charges for that year. The borrowing amount appearing in the Balance Sheet is net of amortisation (See note 19(a)).

(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
<i>System Assets & Buildings</i>	
Dams	200
Reservoirs	150
Canals & Tunnels	150
Major Pipelines (above ground)	150
Weirs	100
Water Mains	75-100
System Buildings	50-100
Water Pumping Stations	45
Working Plant & Equipment	2-14
Leasehold Improvements	Over the remaining period of the lease or life of the improvements whichever is shorter.

(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 Income & Expenditure Statement in the periods in which they are incurred.

(k) Financial Instruments

Financial Instruments give rise to positions that are financial assets or liabilities (or equity instruments) of either the Authority or its counterparts. 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

The 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 Authority has borrowings of \$159M from the New South Wales Treasury Corporation. The terms of the loans are disclosed at Note (30).

(l) Revenue Recognition

Revenue is recognised when the Authority has control of the goods or right to receive, it is probable that the economic benefits will flow to the Authority, and the amount of revenue can be measured reliably.

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 the ancillary services is recognised when there is a valid claim against external parties.

ii. Investment income

Interest revenue is recognised as it accrues. Rent revenue is recognised in accordance with AAS 17 "Accounting for Leases".

(m) 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 13).

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 Balance Sheet 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.

(n) Comparative Figures

As this is the first period of operation, comparative figures are not available.

(o) Dividend payable to State Government

The Dividend payable to State Government is established in the Statement of Financial Performance. For 1999/2000 the total payable to State Government was negotiated by reference to the after tax earnings of the Authority as a set amount of \$10.6M.

2 WATER SALES**1999-2000**

	\$'000
Bulk Water Sales to Sydney Water at Fixed Prices	57,600
Bulk Water Sales to Sydney Water at Variable Prices	62,530
Other Bulk Water Sales	301
Sydney Water Rebate	[3,200]
	117,231

3 ANCILLARY SERVICES

	\$'000
Consulting	1,760
Rental Income	393
Conference Centre Hire	331
Other	115
	2,599

4 INVESTMENT INCOME

	\$'000
TCorp Hour-Glass Investment Facilities	1,639
Bank Interest – Operating Account	9
	1,648
All investments are with the New South Wales Treasury Corporation (TCorp) Cash Facility	

5 EMPLOYEE RELATED EXPENSES

	\$'000
Salary and Wages (including Recreation Leave)	9,687
Superannuation	[1,185]
Long Service Leave	794
Workers Compensation Insurance	402
Payroll and Fringe Benefits Tax	809
	10,507

6 CONTRACTORS

	\$'000
Professional Services Contractors	1,456
Contractors – SWC	182
Contractors – AWT	10,167
Contractors – General	7,034
	18,839

7 ADMINISTRATION**1999-2000**

	\$'000
Auditors' Remuneration	120
Committee Fees and Expenses	21
Establishment Costs	680
Travel Expenses	42
Advertising	71
Memberships & Associations	416
Telephone & Fax	525
Other Operating Expenses	1,242
	3,117

8 FINANCING CHARGES

	\$'000
Interest Expense	10,313
	10,313

9 INFORMATION MANAGEMENT EXPENSES

	\$'000
Hardware Lease Costs – Minimum Lease Payments	381
Software Purchase and Development	66
Hardware Purchase and Maintenance	75
Other Related Expenditure	179
	701

10 PROPERTY

	\$'000
Repairs and Maintenance	530
Operating Lease Expenses – Minimum Lease Payments	427
Furniture Hire	65
Cleaning	173
Security	254
Rates	70
	1,519

11 TAXES	1999-2000
	\$'000
Land Tax	983
Wholesale Sales Tax	891
	1,874
12 DEPRECIATION	
	\$'000
System Assets	6,030
Land and Buildings	106
Working Plant and Equipment	97
	6,233
13 INCOME TAX EXPENSE EQUIVALENT	
	\$'000
Prima Facie (Income tax expense @ 36% of Operating profit before Tax)	21,556
Permanent Differences	
• Superannuation	(671)
• Entertainment	3
• Adjust for Change in Tax Rate	212
Income tax expense for the year	21,100
14 INVESTMENTS	
	\$'000
TCorp Hour-Glass Investment Facilities	41,893
	41,893
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.	
15 RECEIVABLES	
	\$'000
Trade Debtors	10,317
Other Debtors	157
	10,474
No Provision for Doubtful Debts has been provided as all debts are considered collectable.	

16 NON CURRENT ASSETS - LAND AND BUILDINGS, PLANT AND EQUIPMENT	1999-2000
	\$'000
(a) Plant and Equipment	
At Transfer Book Value from Sydney Water	444
Less Accumulated Depreciation	(97)
Net Book Value	347
(b) Land and Buildings	
At Transfer Book Value from Sydney Water	130,934
Less Accumulated Depreciation	(107)
Net Book Value	130,797
17 SYSTEM ASSETS	
	\$'000
At Transfer Book Value from Sydney Water	488,132
Less Accumulated Depreciation	(6,030)
Net Book Value	482,102
Work in Progress at Cost	
Warragamba Dam Spillway Upgrade	56,794
Warragamba Dam General Upgrade	258
Warragamba Pipelines Upgrade	439
Blue Mountains System Upgrade	263
Metropolitan Dams Upgrade	2,588
Upper Canal Upgrade	802
Prospect Reservoir Upgrade	488
Shoalhaven System Upgrade	1,065
Catchments Upgrades	399
General Upgrades	2,150
Total Work in Progress	65,246
Total Net Book Value	547,348

18 CURRENT LIABILITIES**1999-2000**

	\$'000
(a) Creditors	
Accounts Payable	9,643
Accrued Charges	4,919
Notional Income Tax Payable	21,197
Dividend Payable	10,600
Accrued Interest	3,358
Other Creditors	26
	49,743

(b) Borrowing

Short Term Loans	8,251
	8,251

(c) Employee Entitlements

Provision for Recreation Leave	1,554
Other (Payroll, Tax and Employee Deductions Clearing Account)	492
	2,046

Total Current Liabilities	60,040
----------------------------------	---------------

19 NON-CURRENT LIABILITIES**\$'000****(a) Borrowings**

Fixed Interest Loans (TCorp)	150,848
Premium on Borrowings	1,474
	152,322

(b) Employee Entitlements

Long Service Leave	3,470
	3,470

(c) Other

Deferred Income Tax	85
	85

Total Non-Current Liabilities	155,877
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20 CHANGES IN EQUITY**1999-2000**

	\$'000
Transferred from Sydney Water Corporation	491,646
Surplus for the period	28,180
Balance at the end of the Financial Year	519,826

21 STATEMENT OF OPERATIONS OF SEGMENTS

The economic entity operates in the water industry predominantly in the one geographical area of New South Wales in Australia.

22 SUPERANNUATION

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

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

With the exception of the FSSS, the above funds provide defined benefits based on years of service and final average salary.

The Net Liability/Prepaid Superannuation Contributions Statement as at 30.6.2000 are as follows:

	SASS	SANCS	SSS	Total
Contributors	45	81	37	
Pensioners			1	

Monetary Value in \$'000

Accrued Liability	(2,742)	(1,039)	(6,062)	(9,843)
Less Estimated Reserve Account				
Closing Balance as at 30/6/2000	4,406	1,101	6,200	11,707
Net Liability/Prepaid Contributions as at 30 June 2000	1,664	62	138	1,864

The Authority's superannuation liabilities as at 2 July 1999 was determined using the Triennial valuation of the above three schemes as at 30 June 1997. The liability was determined as \$11.214 million. The Authority was fully funded at transfer time 2 July 1999 from Sydney Water. The actuary, William 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 [7%], Rate of Salary Increase [4%], and Rate of Increase in CPI [2.5%].

All other assumptions were based on the 1997 triennial valuation.

23 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

Aggregate capital commitments contracted for at balance date and not provided for:

	1999-2000
	\$'000
Not later than 1 year	40,454
Later than 1 year but not later than 5 years	14,849
	55,303

(b) Other Expenditure Commitments

Aggregate other expenditure commitments contracted for at balance date and not provided for:

	1999-2000
	\$'000
Not later than 1 year	2,374
Later than 1 year but not later than 5 years	1,470
	3,844

(c) Lease Commitments

Aggregate operating lease expenditure contracted for at balance date but not provided for:

	1999-2000
	\$'000
Not later than 1 year	1,481
Later than 1 year but not later than 5 years	2,621
	4,102

24 CONTINGENT LIABILITY

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

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 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 Deacons Lawyers to advise on the Authority's exposure in relation to the Native Title Claim.

25 AMOUNTS WRITTEN OFF

No amounts were written off during the year.

26 MONIES HELD IN EXCESS OF 2 YEARS

No unclaimed amounts have been held in the accounts of the Sydney Catchment Authority in excess of two years. All amounts unclaimed are forwarded to the Treasury as Unclaimed Monies where they remain available for refund for a period of twenty years. No Unclaimed Monies were held by the Authority at 30 June 2000.

27 CASH AND CASH EQUIVALENTS

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

		1999-2000
	NOTE	\$'000
Cash at bank (ANZ, Westpac, Petty Cash)		1,440
TCorp Hour-Glass Investment Facilities	14	41,893
		43,333

28 RECONCILIATION OF OPERATING SURPLUS
AFTER INCOME TAX TO NET CASH PROVIDED BY OPERATING ACTIVITIES

		\$'000
Operating Surplus after Income Tax		38,780
Add/Subtract: Expense items classified as investing or financing activities		
Financing Charges	10,313	
Add:		
Non cash items		
Depreciation	6,233	
Prepaid land tax written off	983	
Add/Subtract: Net movement applicable to operating activities		
Employee Provisions	1,633	
Creditors	9,571	
Debtors	(12,318)	
Provision for Income Tax	21,197	
		37,612
Net Cash provided by Operating Activities		76,392

29 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 are 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
Reduction in Share Capital		491,646

30 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 Balance Sheet date are as follows:

All Financial Year 99/00

	Non Interest Bearing	Floating Rate Maturing in: less than 1 year	Fixed Interest Rate Maturing in: 1 to 5 yrs 5 to 8 yrs		Total	Weighted Average Interest Rate
	\$'000	\$'000	\$'000	\$'000	\$'000	
Financial Assets						
Cash	-	1,440	-	-	1,440	4.8%
Treasury Corporation (TCorp)	41,893	-	-	-	41,893	N/A
Receivables	10,474	-	-	-	10,474	N/A
Total Financial Assets	52,367	1,440	-	-	53,807	
Financial Liabilities						
Borrowing (TCorp)	-	8,251	32,000	118,848	159,099	7.0%
Accounts Payable	49,743	-	-	-	49,743	N/A
Total Financial Liabilities	49,743	8,251	32,000	118,848	208,842	

(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 Balance Sheet.

All less than one year.

	Government	Other	Total
	\$'000	\$'000	\$'000
Receivables	9,533	941	10,474

(c) Net Fair Value

All financial assets and financial liabilities in the Balance Sheet are considered that their carrying value approximates net fair value, with exception of TCorp loans. NSW Treasury Corporation loans are valued on a discounted cash flow basis using valuation rates supplied by independent market sources and take into account transaction costs which would be incurred to settle the liabilities.

	Carrying Value	Net Fair Value
	\$'000	\$'000
TCorp loans	159,099	165,834

(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. As at 30 June 2000, the Sydney Catchment Authority has two contracts valued at \$.2M.

Non Interest Bearing	Face Value \$ (17,897)		Coupon 6.05%	
Futures Related				
Futures Position	Bought Contracts	Total Value	Per 0.01% Risk \$ Per Contract	Per 0.01% Total Risk
Contracts 3 Years Bonds	2	0.2\$M	29.77	59.54

(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 2000 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, the Public Finance and Audit Act 1983 and the associated requirements of the Public Finance and Audit (General) Regulation 1995, 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.

John Whitehouse

John Whitehouse
Chairman

Jeff Wright

Jeff Wright
Chief Executive

Date: 24 October 2000

AUDITOR'S REPORT



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 period ended 30 June 2000. The members of the Board of the Authority are responsible for the financial report consisting of the balance sheet, income and expenditure statement 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.

In addition, other legislative and policy requirements, which could have an impact on the Sydney Catchment Authority's financial report, have been reviewed on a cyclical basis. For this period, the requirements examined comprised compliance with:

- core business activities being in accordance with the *Sydney Water Catchment Management Act 1998*; and
- the Premier's Department SES Guidelines in respect of the Chief Executive's contract.

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.

Qualification

In Note 1 (g) (ii) it is disclosed that the Authority is in the process of establishing accounting records of asset values on a segmented basis including a condition-based assessment of asset lives. In my opinion, such detailed records are required to ensure asset values, depreciation and related taxation amounts are materially correct. Until finalisation of this project there is uncertainty as to the accuracy of these amounts in the financial report.

Qualified Audit Opinion

In my opinion, except for the effect of such adjustments, if any, as might have been required had the limitation discussed in the qualification paragraph concerning assets not existed, 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 2000 and the results of its operations and its cash flows for the period then ended.

R J Sendt

R J Sendt
Auditor-General

SYDNEY
2 November 2000

(appendices)

APPENDIX 1
WATER QUALITY DATA

TABLE 10: CRYPTOSPORIDIUM AND GIARDIA IN LAKES AND BULK SUPPLY

Site	No. of Samples Tested	Number of DAPI positive results					
		High *		Medium *		Low *	
		Crypto	Giardia	Crypto	Giardia	Crypto	Giardia
Lake Burragorang	710	0	0	0	0	0	0
Upper Canal (near Prospect) +	5	0	0	0	0	1	0
Blue Mountains System	150	0	0	0	0	0	0
Wingecarribee Reservoir	49	0	0	0	0	0	0
Broughtons Pass	353	0	0	0	0	3	0
Prospect WFP	355	0	0	0	0	0	0
Illawarra System	153	0	0	0	0	1	0
TOTAL	1775	0	0	0	0	5	0

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

+ Event sampling only

TABLE 11: QUALITY OF WATER SUPPLIED TO WATER FILTRATION PLANTS

Water Filtration Plant	Water Quality Parameters									
	Colour HU					Turbidity NTU				
	BWSA	Average	Min	Max	Conformance	BWSA	Average	Min	Max	Conformance
Cascade	<15	9	5	20	100	<15	1.1	0.7	2.4	100
Greaves Creek	<60	20	10	31	100	<40	1.7	1.1	3.3	100
Illawarra	<48	18	7	44	100	<10	0.6	0.3	3.6	100
Macarthur	<40	14	1	54	100	<60	1.5	0.6	20.1	100
Nepean	<60	36	5	70	95	<183	2.3	0.6	14.6	100
Orchard Hills	<60	7	5	20	100	<40	0.8	0.3	2.0	100
Prospect	<60	12	6	22	100	<40	0.9	0.4	1.8	100
Warragamba	<60	11	5	30	100	<40	0.7	0.3	6.4	100
Woronora	<70	36	20	62	100	<11	1.0	0.4	3.7	100
Wingecarribee	N/A	20	8	45		N/A	2.1	1.0	4.8	
Kangaroo Valley	N/A	18	10	40		N/A	2.7	1.1	6.1	

Water Filtration Plant	Water Quality Parameters									
	Iron mg/L					Manganese mg/L				
	BWSA	Average	Min	Max	Conformance	BWSA	Average	Min	Max	Conformance
Cascade	<3	0.11	0.06	0.27	100	<0.25	0.04	0.01	0.13	100
Greaves Creek	<2.8	0.48	0.22	1.27	100	<0.26	0.02	0.01	0.04	100
Illawarra	<1.12	0.10	0.02	0.40	100	<0.27	0.02	0.00	0.11	100
Macarthur	<1.3	Not Monitored				<0.28	Not Monitored			
Nepean	<5	0.49	0.30	0.75	100	<0.29	0.11	0.02	0.34	100
Orchard Hills	<3.5	0.04	0.03	0.08	100	<0.30	0.01	0.00	0.03	100
Prospect	<3.5	Not Monitored				<0.31	0.01	0.00	0.02	100
Warragamba	<3.5	0.06	0.03	0.24	100	<0.32	0.01	0.00	0.07	100
Woronora	<1	0.09	0.02	0.19	100	<0.33	0.01	0.00	0.02	100
Wingecarribee	N/A					N/A				
Kangaroo Valley	N/A	0.15	0.08	0.35		N/A	0.03	0.00	0.70	

Water Filtration Plant	Water Quality Parameters									
	Aluminium mg/L					pH				
	BWSA	Average	Min	Max	Conformance	BWSA	Average	Min	Max	Conformance
Cascade	<0.18	0.03	0.01	0.06	100	6.0-7.4	6.98	6.57	7.43	98.1
Greaves Creek	<0.19	0.12	0.02	0.22	100	4.4-9.2	6.09	5.27	6.75	100.0
Illawarra	<0.20					6.2-7.2	6.38	5.83	7.06	99.4
Macarthur	<0.21	Not Monitored				5.7-7.6	6.50	6.10	7.78	99.4
Nepean	<0.22	0.12	0.02	0.51	100	4.8-7.6	6.36	5.89	6.92	100.0
Orchard Hills	<0.23	0.02	0.01	0.05	100	6.2-7.8	6.86	6.55	7.21	100.0
Prospect	<0.24	Not Monitored				6.2-7.8	6.95	6.74	7.92	99.6
Warragamba	<0.25	0.02	0.01	0.06	100	6.2-7.8	6.94	6.33	7.33	100.0
Woronora	<0.26	0.12	0.00	0.36	100	5.0-7.5	6.12	5.04	9.77	93.3
Wingecarribee	N/A	Not Monitored				N/A	7.16	6.21	7.9	
Kangaroo Valley	N/A	Not Monitored				N/A	6.79	5.95	7.71	

NB BWSA – Bulk Water Supply Agreement

TABLE 12: WATER QUALITY IN CATCHMENT STREAMS

System	Location	Median Dry Weather Water Quality Parameters **					
		Dissolved Oxygen [%satn]	Turbidity (NTU)	Faecal Coliform (CFU/100ml)	Total Phosphorus (mg/l)	Total Nitrogen (mg/l)	Chloro-phyll-a (ug/l)
Warragamba	Coxs River	118	0.7	6	0.009	0.14	<0.2
	Kowmung River	112	0.9	10	0.009	0.15	<0.2
	Kedumba River	102	1.8	43	0.014	0.32	0.4
	Nattai/Little River*	122	1.8	11	0.176*	1.07	1.63*
	Wingecarribee River*	104	14	6	0.059*	0.97*	18.8*
	Mulwaree River#	55*	11.4*	72	0.092*	1.13*	4.5*
	Wollondilly River*	154	1.9	21	0.084*	0.70*	3.7*
	Nepean River*	105	2.6	10	0.008	0.30	0.3
Shoalhaven	Kangaroo River	111	3.4	400*	0.018	0.29	0.5
	Mongarlowe River	103	1.9	22	0.011	0.11	0.3
	Shoalhaven River u/s of Tallowa Dam*	113	2.1	18	0.012	0.20	0.50
	Shoalhaven River d/s of Tallowa Dam*	112	7.7	1	0.016	0.42*	1.30

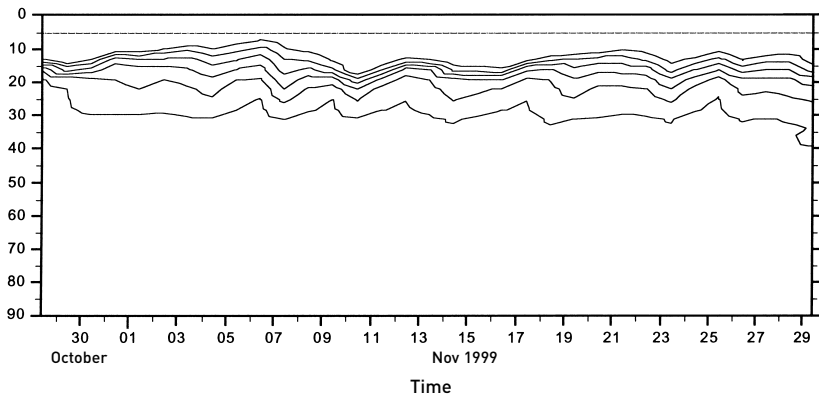
only one sample collected
* Average values of the medians at various stations
** Water quality parameter should be less than following values for upland rivers under ANZECC 1999 draft guidelines for protection of aquatic ecosystems

- Dissolved oxygen > 90% satn
- Turbidity < 5 NTU
- Faecal coliforms < 150 CFU/100ml (for primary contact)
- Total phosphorus < 0.035 mg/l
- Total nitrogen < 0.34 mg/l
- No data available for upland rivers but < 2.0 ug/l for lowland rivers

* Exceeded values

DWA2 – WALL SITE
CHANGES IN STRATIFICATION 15/11/99 – 29/11/99

FIG 7: TEMPERATURE AT WARRAGAMBA DAM WALL



Figures 7 and 8 illustrate the types of data available from the RESMAN program. As water temperature is a good indicator of water quality, SCA staff are able to use the data in their day-to-day management of bulk water supply.

FIG 8: 09:00 29 NOV 1999

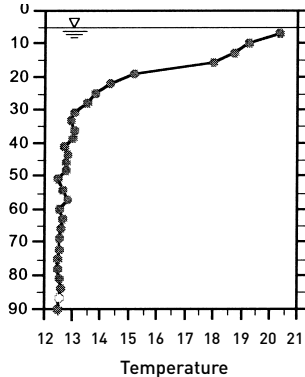


TABLE 13: WATER QUALITY IN STORAGES

Storage	Median Water Quality Parameters	
	Turbidity (NTU)*	Chlorophyll-a (ug/l)**
Avon	1.05	5.10
Cataract	1.84	5.00
Cordeaux	2.29	5.40
Fitzroy Falls	2.98	6.80
Greaves Creek	2.54	4.10
Lower Cascade	1.79	2.40
Nepean	2.50	3.90
Tallowa	6.25*	7.28
Top Cascade	1.66	5.10
Warragamba	1.56	4.76
Woodford	3.54	3.30
Wingecarribee	4.28	8.60
Woronora	1.68	1.70
Prospect	2.00	3.20

* Mean turbidity level should be less than 4.5 NTU for fresh water lakes & reservoirs under ANZECC 1999 draft guidelines for protection of aquatic ecosystems
** Mean chlorophyll-a levels should be less than 9.0 ug/l for fresh water lakes & reservoirs under ANZECC 1999 draft guidelines for protection of aquatic ecosystems
* Exceeded values

APPENDIX 2 FREEDOM OF INFORMATION

The SCA received three requests for access to documents under the Freedom of Information Act 1989. These requests were determined in the following manner:

1. After consultation with Wingecarribee Shire Council, access was granted to the applicant of the requested document.
2. Documents were not released due to applicant's failure to pay application fee.
3. No documents held by the SCA which met the applicant's request.

All applications were determined within 21 days of receipt. No internal reviews were sought of SCA's decisions by any applicant. The total amount of application fees collected by SCA was \$60.

FREEDOM OF INFORMATION (FOI) ACT 1989 – SECTION 14(1)(B) AND (3) – SUMMARY OF AFFAIRS OF THE SYDNEY CATCHMENT AUTHORITY

Policy Documents

The Authority holds the following policy documents. They are all available for public inspection:

- Human Resources Policies and Procedures
Employee Code of Ethics
Recruitment Policy
Equity and Diversity
Work and Family Policy
Conditions of Employment
Pay Policies
Grievance Resolution, Dispute Settlement, Disciplinary Policies and Procedures.
Information Technology and Records Management Policies and Procedures on:
- Electronic mail
 - Records management responsibilities
 - Records disposal
 - Records retention
 - Records security
 - Mail management
 - Internet
 - Remote access
 - Remote computing
 - Information technology standards.

Customer Complaints Policy and Procedures
Energy Management Policy
Corporate Incident Management Policy
Interim Media Relations Policy
Uniforms and Protective Clothing
Telephone Protocol Policy
Mobile Phones Policy
Fleet Motor Vehicle Policy
Parking of Motor Vehicles Policy
Amex Corporate Card Policy
FBT Expenses Form.

Statement of Affairs

A copy of the SCA's initial Statement of Affairs, to be published in October 2000, will be available by contacting the SCA's FOI Coordinator.

The Statement of Affairs will provide information on the following:

- structures and functions of the SCA
- public participation in the formulation of the SCA's policy, instruments and regulation
- the manner in which the SCA's functions impact on the public.

Contact arrangements

All applications for access to documents held by SCA under the Freedom of Information Act 1989 should be in writing, accompanied by an application fee of \$30 and marked "Attention FOI Coordinator".

The application should be directed to:

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

Members of the public can access policy documents at:

Head Office,
Sydney Catchment Authority
Level 2
311 High Street
PENRITH NSW 2750

between the hours of 8.30am to 5pm, Monday to Friday.

APPENDIX 3 SCA EMPLOYEE CODE OF CONDUCT

In this first Annual Report, the SCA has published its Code of Conduct in full as required. Subsequent reports will record only amendments to the code.

This Code of Conduct has been developed to assist us in working through ethical questions at work, such as "what is the right thing to do?" and how do my actions affect others and the environment?"

Like any business, the Authority has to meet high standards of accountability demanded by the community.

This document will therefore help us understand the Authority's ethical principles and guide us on how to work and conduct ourselves ethically.

THE PRINCIPLES OF ETHICAL CONDUCT

Responsibility to the Government of the day and the Sydney Catchment Authority

We are responsible for implementing and complying with Government and SCA policies and decisions in an impartial manner, regardless of our personal beliefs and opinions.

We should understand and promote the Authority's strategic and business direction and how it should be achieved.

Respect for People

We are to treat members of the public and fellow employees fairly, consistently, with respect and courtesy, and recognising that they are individuals with rights. We must also refrain from any form of conduct likely to cause any person unwarranted offence or embarrassment.

We must not harass or unfairly discriminate against anyone because of their gender, ethnicity, religion, marital status, pregnancy, disabilities, age or sexual preference.

We regard the health and safety of members of the public and fellow employees to be of the highest importance.

Integrity and Public Interest

We should conduct ourselves in a manner that promotes confidence in the integrity of the Authority.

We must always act in the public interest and in the interests of the Authority. We have a responsibility to not engage in activities at work that would bring the Authority into disrepute.

Responsive Service

We should provide a relevant and responsive service to the community, including all necessary and appropriate assistance.

We should provide information promptly and make sure that it is clear, accurate, current and complete.

Economy and Efficiency

We are to make the best use of our time at work and of the resources made available to us to help us carry out our duties. We should always look for ways to improve our skills and performance.

We have a duty to act in good faith and perform our duties diligently, impartially, contentiously and to the best of our ability.

Care for the Environment

We all share the responsibility for the protection of the environment. We are expected to use reasonable foresight and care in planning and carrying out our work activities so that any harmful impacts on the environment are minimised or prevented.

In a practical sense we should be thinking about the potential for environmental harm in every thing we do, checking with the appropriate people when we are unsure about the potential for environmental harm and taking steps to avoid or reduce environmental harm.

THE CODE OF CONDUCT

This code provides a guide to behaviour that is expected of us at work.

While there is no set of rules capable of providing answers to all the ethical issues that could arise at work, this code provides a framework in which we can operate.

1 Responsibilities of Staff

We are all accountable for what we do at work or for what we fail to do.

We have a responsibility to report on conduct that we know or suspect is unlawful or unethical.

As an employee you should follow any lawful direction given by your manager. However, you are responsible for your own actions and should never follow any direction you know or suspect is unlawful. Any unlawful direction should be reported immediately.

There may be times when you are directed to do something which, while not unlawful, might jeopardise or be in conflict with your professional integrity or judgement or seem to contravene the Code of Conduct. If you wish to dispute the direction, you should discuss it with your manager in the first instance.

If a satisfactory resolution cannot be reached you should note your objections. You may contact the following people for advice. You may also lodge a grievance to:

- the relevant General Manager
- Manager People and Quality,
- the Chief Executive.

2 Responsibilities for Managers

You are responsible for making sure that you and your staff understand and follow the principles set out in this code of conduct.

You need to provide clear and timely direction to your staff and ensure that they know what is expected of them and give them regular feedback on their performance

You must never give a direction or provide support that you know is unlawful.

The following five-point guide may be useful when we are making ethical decisions.

- 1 Is the decision or conduct lawful?
- 2 Is the decision or conduct in line with government policy, the Authority's objectives and the code of conduct?
- 3 What will the outcome be for the employees involved, the Authority and other parties?
- 4 Do these outcomes raise a conflict or lead to private gain at public expense?
- 5 Can the decision be justified in terms of the public interest and would it withstand public scrutiny?

3 Dealing with the Community

The Authority deals with a wide cross-section of the community. We should treat members of the community fairly and equally, with respect and courtesy.

If a member of the community contacts you, you should try your best to provide a prompt and helpful service. If you are unable to answer questions or provide assistance, you should get help from your manager, other staff in your area or direct the inquiry to the appropriate area.

You must be honest and open in your dealings and do your best to ensure that members of the community understand the implications of any particular course of action.

4 Conflicts of Interests

Conflicts of interest exist when it is likely that we could be influenced, or could be perceived to be influenced, by personal interest in carrying out our work. Conflicts of interest that lead to biased decision-making may constitute corrupt conduct.

Some areas that may give rise to a conflict of interest include:

- having financial interests in a matter the Authority deals with, or knowing friends or relatives with such interests
- having personal beliefs or attitudes that influence the impartiality of decisions
- having personal relationships with the people the Authority is dealing with that go beyond the level of a professional working relationship
- having a second job that compromises the integrity of the Authority
- taking part in party political activities that could conflict with your position within the Authority, or making adverse political comments that relate to the Authority's work.

You may be the only person aware of the potential for conflict. It is therefore your responsibility to avoid the possibility that the impartial performance of your duties may be compromised.

You should therefore disclose any potential or actual conflicts of interest to your manager or the following alternatives:

- the relevant General Manager,
- the Manager People and Quality,
- the Chief Executive.

If you are uncertain whether a conflict exists, you should discuss the matter with your manager or the above personnel.

To resolve any conflicts of interest that do occur, or could occur, a range of options is available depending on the significance of the conflict. These options include:

- recording the details of the disclosure and taking no further action because the potential for conflict is minimal or can be eliminated by disclosure or effective supervision
- relinquishing the personal interest, or
- transferring to another area of work (at no disadvantage in terms and conditions of employment).

Disputes over alleged conflicts of interest should be resolved through the Grievance Resolution Procedures.

5 Accepting Gifts, Money, Benefits or Prizes

From time to time, while on official business, you could be offered gifts, money, benefits or the chance of winning prizes, by organisations or people outside the Authority.

Except as noted below, you should not accept gifts, prizes or benefits from any person, organisation or group, that are offered to you by virtue of your employment with the SCA.

You may accept token gifts, prizes or benefits provided there is no possibility that you or the Authority will be, or will appear to be, compromised or placed under an obligation in the process.

Token gifts, prizes or benefits do not include cash. If you are not sure of what is appropriate you should ask your manager for advice.

Receipt of such token gifts, prizes or benefits should be disclosed to management.

If appropriate, managers will determine a mechanism for fair, open and meaningful distribution and/or utilisation of the prize. The mechanism chosen will reflect the nature and value of the prize (eg. some possible options might include raffling the prize amongst staff with the proceeds going to a reputable charity, donating the prize directly to a charitable organisation, etc).

Depending on the nature and value of the prize, managers may need to seek the advice of their General Managers.

Frequent flyer points earned from travel paid for by the Authority must not be used for private travel purposes.

6 Using the Authority's Resources

We must follow the Authority's instructions and policies for using and looking after its resources. These include SCA equipment, materials, facilities, information, money and employees' time.

Generally we are not to use any of the Authority's resources for private reasons, or allow anyone else to do so. However, sometimes such use may be allowed, but we should get approval in writing from management first.

The use of communication devices such as telephones, email etc for personal reasons is acceptable providing the use is infrequent and brief. Please refer to the Authority's Information and Technology policies.

7 Secondary Employment

If you plan on undertaking either voluntary or paid work outside the organisation you should notify your manager in writing. Your manager will discuss the situation with you if he or she feels that this other work is in conflict with your obligations to the Authority. If you do other work you must not:

- allow it to affect the quality of your work at the Authority,
- use any confidential information you have found out while working at the Authority,
- have or create a conflict of interests or duties, and
- use Authority resources without permission.

8 Politics or Community Activities

The Authority allows its people to be involved in political and community activities. It benefits by being staffed by employees with a variety of beliefs, backgrounds and interests. However, we must be careful that our political or community activities do not cause a conflict. This could happen if, for example, we use confidential information, our status or position in the Authority or its resources to further our community or political interests.

Politics include:

- Being a candidate for federal, state or local government
- Being a representative, fundraiser or spokesperson for a political party, movement cause or lobby group
- Being publicly involved in a well-publicised community issue.

9 Protecting Confidential Information

Access to confidential information is restricted to authorised employees only.

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

If you want to use confidential information or feel there is good reason to release the confidential information you should first get approval in writing from your General Manager.

You must not alter records without authority. This includes changing personal files, customer information or computer information.

10 Public Comment

Only authorised employees may make official public statements on behalf of the Authority.

Public comment may involve public speaking engagements, comments on radio and television or in letters to newspapers, and expressing views in books, journals or notices if it is expected that the comments will spread to the community at large.

As individual members of the community we have the right to make personal public comments and enter into public debate on political and social issues. However, care needs to be exercised in some circumstances.

For example, situations when the public comment, although made in a private capacity, may appear to be an official comment on behalf of the Authority.

In such circumstances, you should preface your remarks with a comment that you are expressing a personal opinion that does not represent the official view of the Authority.

Please refer to the Authority's Media Policy for more information.

11 Bankruptcy and Criminal Charges

If you become bankrupt, you must tell your management. However, management will probably have no reason to become involved.

If you are charged or convicted of a serious criminal offence, you must report it to your management. A serious offence means you might go to prison if convicted.

12 Other Laws and Regulation

We must make an effort to understand and keep up to date with any laws and regulations relevant to our work. This includes taking training courses or asking management for advice.

We must obey the laws and regulations that apply to our work and ourselves.

13 After Leaving the Authority

We should not allow our work to be influenced by plans for, or offers of, employment outside the Authority. If you do, there is a conflict of interest, which could put your integrity and the integrity of the Authority at risk.

Former employees should not use, or take advantage of, confidential information that may lead to gain or profit obtained in the course of their official duties until it has become publicly available.

We should be careful in our dealings with former employees and make sure we do not give them, or appear to give them, favourable treatment or access to privileged information.

14 Reporting Unethical Conduct

If you see or suspect unethical or unlawful conduct you must report it immediately. The Authority has procedures detailing how to report conduct that you know or suspect contravenes the Code of Conduct.

The Protected Disclosures Act, 1994, protects you, in certain circumstances, against reprisals if you voluntarily

report conduct that you know or suspect is corrupt, involves maladministration or serious and substantial waste.

Refer to the Authority's procedures on reporting unethical conduct for more information.

15 Advice on Ethical Issues

We can get advice on ethical issues from our managers, General Managers, the Manager People and Quality, the Manager Finance and the General Manager, Business Services.

We can also seek information and assistance from various external agencies such as the Independent Commission Against Corruption, NSW Ombudsman, Anti-Discrimination Board or the St James Ethics Centre.

16 Consequences of Being Found to Have Acted Unethically

We need to be familiar with the substance and spirit of this code and should be aware that breaches may result in sanctions which may include counselling, retraining, disciplinary action, performance review, dismissal or civil or criminal action, depending on the nature of the breach.

The code stands beside, but does not exclude or replace our rights and obligations under the law. Any alleged breach of the Code that falls within the scope of the disciplinary provisions of any industrial award or agreement will be treated in accordance with those provisions.

It is an offence to wilfully make false or misleading statements when making disclosures.

*Contact for information:
The SCA's People and Quality Section.*

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APPENDIX 4 - CATCHMENT PROTECTION & IMPROVEMENT GRANTS

NO.	APPLICANT	DESCRIPTION	AMOUNT APPROVED
1	The National Trust, Berrima	Clearing willow trees and other invasive introduced plant species from the Wingecarribee River in the village of Berrima.	\$8,000.00
2	Goulburn Olympic Landcare Project	Stock fencing as part of the Goulburn Olympic Landcare Project.	\$8,000.00
3	Blue Mountains City Council – Forum 11 August 1999	Sponsorship of the Blue Mountains Environmental Trade and Industries Forum.	\$3,000.00
4	Southern Highlands Landcare	Introduction of Dung Beetles throughout the Southern Highlands.	\$5,000.00
Total – Prior to Round 1			\$24,000.00
ROUND 1 CLOSED 30.11.99			
5	Wollondilly Landcare	Funding of the Wollondilly Landcare Coordinator’s Position to support a range of Landcare projects and provide environmental education.	\$8,000.00
6	Coxs River Catchment Committee, Lithgow	To conduct a course showing High School teachers how to use the Coxs River Catchment as a resource for teaching Science and Geography.	\$7,941.00
7	National Trust of Australia (NSW) Bushland Management Section	To selectively remove the serious environmental weed tree <i>Pinus radiata</i> from otherwise undegraded native ecosystems within the Lake Medlow catchment area in Medlow Bath.	\$3,815.00
8	Gordon Falls Bushcare Group Leura	Educate the local community and tourists on the impact of urban run-off on the environment by placement of approx. 30 scientifically developed etched aluminium signs adjacent to the popular walking track.	\$6,500.00
9	Blue Mountains Rare and Endangered Species Group, Wentworth Falls	To control invasive introduced plant species, such as Ivy and Montbretia in the upper catchment of Katoomba Falls. Education of residents within the Upper Catchment area through a simple leaflet outlining the importance of controlling introduced species in gardens and lands upstream of the target sight.	\$8,000.00
10	Mulwaree Shire Council <i>(Institute for Sustainable Futures)</i>	To develop an education module for the education and training of shire residents in the understanding, maintenance, surveillance and reporting on the operation of on-site sewage management facilities.	\$8,000.00
11	Wingecarribee Shire Council	To undertake a preliminary audit of all commercial / industrial premises to more accurately assess the trade waste generation / disposal and pollution potential, and establish a mechanism for a “Fee for Service” criteria.	\$8,000.00
12	Mount Alexandra Reserve Committee	To undertake a weeding project involving a qualified Bush Regenerator to remove exotic weeds and teach and encourage volunteers to weed.	\$8,000.00
Total – Round 1			\$58,256.00
Total – Cumulative			\$82,256.00
ROUND 2 CLOSED 30.4.00			

13	Inverary Creek Landcare Group Inc.	Planting, maintenance, fertilising, boron application, weed control and pest control in an area of 6-7 hectares in the Spring Creek Catchment. The area will form part of the Resource Centre development and will be used in training for pruning and tree selection courses.	\$8,000.00
14	Mt. Gibraltar Reserve Management Group	Undertake bush regeneration in Chinamans Creek within the Mt. Gibraltar Reserve.	\$6,600.00
15	Mittagong Rivulet Landcare Group	To clear rubbish, non-native vegetation, maintain riparian areas, revegetate with native grasses, shrubs and trees, improve water quality, water flow and education and promote public awareness.	\$8,000.00
16	Bowral Urban Landcare Group	To restore East Mittagong Rivulet by reinstating collapsed banks; prevent future erosion; remove willows and environmental weeds; clear rubbish and visual pollution; and replant with native trees, shrubs, bushes and grass.	\$8,000.00
17	Gundary Creek Catchment Landcare Group	To fence, for stock exclusion, 480 metres of a second order stream (a tributary of Gundary Creek) on two adjoining properties; and to plant 350 trees to create habitat and increase biodiversity; and education on the benefits of stream management.	\$2,702.50
18	Blue Mountains Rare & Endangered Species Group	To control invasive introduced plant species, such as Ivy and Montbretia in the upper catchment of Leura Falls.	\$8,000.00
19	National Trust of Aust (NSW) Berrima 1914-18	To rehabilitate the Wingecarribee River corridor between Berrima Weir and Wallaby Rocks.	\$8,000.00
20	Braidwood Urban Landcare Group	To remove willows; revegetate suitable areas along Monkittie Creek with native species; continue water quality monitoring and photographic recording of changes and consulting with adjoining landholders, community groups and the wider community regarding the section of Monkittie Creek bounded by the golf course.	\$7,025.00
21	Mt. Alexandra Reserve Management Committee	To identify and close off superfluous and disused, degraded fire trails, and provide locked gates. To upgrade essential fire trails. To plant native species and eradicate weeds. To train and educate in best management practices.	\$8,000.00
22	Blue Mountains Wildplant Rescue Service	To purchase 3 trolleys for removal of rescued wildplants from rescue sites (after landowners have submitted Development Applications to BM Council) to transport vehicles; purchase of 9 post hole spades, 9 pitch forks and 6 small spades.	\$1,728.00
23	Wollondilly Landcare	To revegetate Pejar Creek catchment with native vegetation along the Pejar Creek and Pejar Dam areas.	\$8,000.00
24	Scouts Aust. Hume Region, Berrima Camp	To connect property to sewer (to replace septic which does not meet guidelines).	\$8,000.00
25	Wingecarribee Linear Reserve Group	To remove willows and other environmental weeds from the Medway Rivulet.	\$8,000.00
26	Stoney Creek Landcare Group	To stabilize cut back areas which is destabilizing the bank down stream. Introduce large rocks, do fencing and replant indigenous trees.	\$6,500.00
Total – Round 2			\$96,555.50
Total – Cumulative			\$178,811.50

5 APPENDIX 5
ENERGY MANAGEMENT

In June 2000, the Board approved the Authority's Energy Management Policy and Plan for 2000-2001. The plan sets out a program and timetable to deal with the Authority's energy requirements under its Operating Licence and the NSW Government's Energy Management Policy. The plan also includes strategies for investigating development of renewable energy. Tallowa, Nepean, Cataract and Cordeaux dams have been identified as potentially viable mini-hydro sites.

As the Authority has now completed its first year of operation, 1999-2000 annual energy usage figures are being analysed with a view to identifying areas for improved energy efficiencies.

6 APPENDIX 6
RISK MANAGEMENT

RISK ASSESSMENT AND MANAGEMENT

Risk management within the Authority is being addressed at both the organisational and divisional level. The Authority has undertaken an initial organisational risk assessment that identifies risks that have the potential to threaten the viability and success of the Authority. Each division is in the process of identifying and addressing their divisional risks. This can include the development of Risk Management Plans, Standard Operating Procedures and Risk Control Plans.

A risk management policy and management framework is currently being developed to provide the basis for risk assessment and management throughout the Authority. The Risk Assessment Policy and Framework utilises the framework set in accordance with the NSW Government Risk Management Guidelines and the Australian/New Zealand Standard on Risk Management AS/NZ 4360:1995.

INCIDENT MANAGEMENT PLANS AND RESPONSE PLANS

The first edition of the SCA Incident Management Manual has been completed. A corporate Incident Notification Procedure has been developed and trialed in the SCA Bulk Water Division. The trial was eminently successful and the procedure will now be adopted for use throughout SCA.

The Bulk Water Division in liaison with SWC and the water treatment plant operators has developed communication protocols between the three parties. The protocols ensure smooth routine operations and effective management of incidents through an integrated approach to the operation of the total water supply system.

Bulk Water staff developed a draft Bulk Water Quality Response Plan that was delivered to NSW Health, SWC and other major customers. Favourable comments were received and were incorporated in the final plan that was delivered to the Licence Regulator on 29 June 2000.

The SCA's Blue-Green Algae Contingency Plan, outlining the response to Blue-Green algae blooms in SCA's storages, was finalised in March 2000 and presented to NSW

Health and DLWC for their comments. The comments from the two agencies have been received and the plan will be finalised in July 2000, in line with the Metropolitan South Coast Regional Algae Coordinating Committee (MSCRACC) Contingency Plan.

Y2K

The SCA developed a comprehensive Y2K program covering compliance, contingency and incident response planning, and communications. The Authority actively participated in the Office of Information Technology (OIT) Y2K regular meetings. Beaumont Management Consulting Pty Ltd conducted the SCA's Y2K external audit on 8.10.99 and, being satisfied with the Authority's readiness, issued a Certificate of Compliance. The SCA experienced no adverse consequences as a result of Y2K. The cost of Y2K preparation was \$20,000.

OLYMPICS RISK ASSESSMENT AND MANAGEMENT

The Olympic equestrian event will be staged at the Sydney International Equestrian Centre, which has been constructed for the Olympics and for ongoing use. The Centre straddles the Upper Canal at Horsley Park.

The SCA managed the final preparation of an operating licence and construction plan for the site in relation to the SCA property. The site and operational strategy are now ready for the Olympics.

In liaison with the SWC, the SCA has developed an Olympics security plan. The plan, which was completed by November 1999, comprises contingency management for identified risks. The SCA participated in a joint incident scenario exercise in May 2000, involving the Army, Police, and SWC. Lessons learnt will be helpful in responding to any incidents during the Olympics.

The Authority has developed a service delivery plan to support the Olympics. Workforce requirements have been examined and the Olympics Work Arrangements Policy, enabling flexible work practices, has been developed.

The SCA has taken an active role in encouraging staff to assist with the Olympic Games while ensuring core operations are not affected. As a result 11 staff, representing 7% of staff, accepted reassignment to the various Olympic venues.

Bulk Water Division has finalised a Bulk Water Supply Strategy during the 2000 Olympics to support SCA's service delivery plan.

The Communications Unit is working closely with Sydney 2000 and key agencies in developing an Olympics Communications Strategy in preparation for the Games period.

INSURANCES

The Authority has engaged Heathbroking company to arrange suitable insurance coverage in relation to the Authority's business liabilities, assets and risk profile. The Insurance Brokers have placed the Authority's insurance coverage with various underwriters in Australia, London and Europe that have experience in insuring large dams and infrastructure works.

General liabilities, for which the Authority has insurance cover are:

- 1 Legal liability for property damage and bodily injury arising out of the Authority's business operations
- 2 Professional Indemnity Insurance
- 3 Legal expenses incurred in relation to an insured event occurring during the period of insurance
- 4 Directors' and Officers' liability and company reimbursement. This insurance indemnifies Board members and officers of the Authority against claims which they are legally obliged to pay arising out of the performance of their duties.

The Authority's Workers Compensation insurer is HIH Winterbourne Workers Compensation.

Warragamba Dam Auxiliary Spillway

The Authority's insurance brokers have arranged principal controlled liability and contract works insurance on behalf of the Authority and Abigroup Contractors Pty Limited in relation to the design, construction and commissioning of the Warragamba Dam Auxiliary Spillway.

Other Insurances

Other insurances held by the Authority include, but are not limited to, property and business interruption, motor vehicle corporate travel, personal accident and sickness.

APPENDIX 7
CONSULTANTS ENGAGED BY THE SCA IN 1999–2000

Consultant	Project description	Expenditure
Engagement over \$30K		
Incident Management System	Incident Management and Threat Awareness Training	30,000
AWT Pty Ltd	Provision of professional services to support the SCA in the review of the Special Areas Strategic Plan of Management - Development of compliance database - Project management of incident training	64,065
CWS Health Management	OH&S Health Promotion - Fitness	40,000
Halter Engineering	Develop strategic and management planning system identification and integration of key strategic plans into corporate process	38,000
Eric Martin and Associates	Future management of the heritage listed Welcome Reef properties	49,582
AWT Property	Property management - management of property portfolio	87,094
CSIRO	Audit of Sydney's water supply catchments - Engaging the CSIRO's Dr John Williams to carry out an audit of Sydney's Catchments as requested by the Minister	88,575
		397,316
Engagement under \$30K		
Number: 18		293,256
Total		\$690,572

APPENDIX 8 - DISPOSAL OF ASSETS

Disposal of Assets: NIL

APPENDIX 9 - COST OF ANNUAL REPORT

The SCA's 1999–2000 Annual Report cost an average of \$17.25 per copy. 2,000 copies were printed.

APPENDIX 10
GUARANTEE OF SERVICE

BULK WATER AGREEMENT

Section 22 of the Sydney Water Catchment Management Act 1998 requires the Authority and Sydney Water Corporation to enter into an agreement for the supply of water by the Authority to Sydney Water. After public exhibition and review of the Agreement by the Independent Pricing and Regulatory Tribunal, it was signed on 15 September 1999.

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.

APPENDIX 11
SCA PUBLICATIONS

BROCHURES

- A Safe Dam - A Sure Supply: Warragamba Dam Auxiliary Spillway
- Sydney Catchment Authority - Protecting Sydney's Drinking Water Catchments
- Catching the cleanest water

VIDEO

A Safe Dam - A Sure Supply: Warragamba Dam Auxiliary Spillway

REPORTS

- SCA Annual Environment Report 1999–2000
- Audit of the Hydrological Catchments managed by Sydney Catchment Authority - final Report to the Minister for the Environment, NSW State Government, December 1999
- Information for the Catchment Audit 1999
- Streamwatch Report 1999-2000 - SCA Streamwatch Network
- Sydney Catchment Authority Summary of Achievements - The First Year - 30 June 2000

OTHER

- Special Area Strategic Plan of Management - Strategy
- Special Area Strategic Plan of Management - Background Document
- Sydney Catchment Authority Operating Licence
- Memoranda of Understanding – Department of Health, EPA, DLWC.

APPENDIX 12
PAYMENT PERFORMANCE SUMMARY

PAYMENT PERFORMANCE SUMMARY

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Percentage of accounts paid on time	75.79	74.54	89.72	97.08
Total dollar amount of accounts paid on time	2,794,745	4,678,468	22,531,587	14,847,034
Total dollar amount of accounts paid	4,468,388	11,621,306	25,112,706	15,293,622

This table outlines the SCA's performance in relation to paying accounts within 30 days

[Glossary]

Algal bloom	Rapid growth of algae in surface waters.
Environmental flows	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.
Faecal coliforms	Bacteria which inhabit the intestines of all warm-blooded animals, including humans. Used as an indicator of sewage pollution.
Giardia & Cryptosporidium	Pathogenic protozoa that can be found in water and which can sometimes cause illness in humans.
Megalitre	Measurement of volume equal to one million litres. One megalitre is approximately the volume of a one metre deep Olympic-sized swimming pool.
pH	A measure of the degree of acidity or alkalinity expressed on a logarithmic scale.
Protozoa	Microorganisms consisting of a single cell eg, Giardia and Cryptosporidium.
Raw water	Water that has not been treated in any way.
Riparian	Relating to the river bank, especially the rights of land owners on the river bank to use water from the river.
Riparian flows	Water releases which cover the right of adjacent property holders to extract water for certain stock and domestic requirements.
Special Areas	Lands mostly around drinking water storages that were originally set aside for the protection of drinking water quality.
Turbidity	A measure of the amount of suspended solids (usually fine clay or silt particles) in water and thus the degree of scattering or absorption of light in the water.
Unfiltered water	Water that has been chemically treated but not treated at a water filtration plant.
Waste water	Water discharges from domestic effluent, industrial (trade waste, industrial waste) and other sectors.
Water storages	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

AWT	Australian Water Technologies	SACC	State Algal Coordinating Committee
BWSA	Bulk Water Supply Agreement	SEPP	State Environmental Planning Policy
CRC	Cooperative Research Centre	SCA	Sydney Catchment Authority
DLWC	Department of Land and Water Conservation	SOP	Standard Operating Procedure
EPA	Environment Protection Authority	SMP	System Management Plan
IPART	Independent Pricing and Regulatory Tribunal	SWC	Sydney Water Corporation
ML	Megalitres	SWCM	Sydney Water Catchment Management Act
NPWS	National Parks and Wildlife Service	WFP	Water Filtration Plant
REP	Regional Environmental Plan		

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