Sydney WATER

Appendix

Sydney Water Annual Report 2006

Appendix
Sydney Water Annual Report 2006

Contents

About this Appendix
This Appendix contains a range of statutory and other information in support of the Sydney Water Annual Report 2006.

This document is available, along with the Sydney Water Annual Report 2006, to view and download at www.sydneywater.com.au

1. Global Reporting Initiative Content Index

This index outlines the sections of the Sydney Water Annual Report 2006 that meet requirements of Part C of the Global Reporting Initiative (GRI) Guidelines 2002. Additional information on the GRI can be found at www.globalreporting.org

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2. Performance area indicator data and commentary

Wastewater management

COMPLIANCE WITH STATUTORY INSTRUMENTS

EPI 7(a) – Total number of breaches of conditions relating to environmental impacts under licences issued by DEC for the sewage treatment systems

2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
2	1	0	1	1	3

n.a. = not available

Performance for 2005-06
There were three breaches of conditions relating to environmental impacts under licences issued by the Department of Environment and Conservation (DEC) for the sewage treatment systems during 2005-06.

These were:

- A wet weather overflow from SPS353 at Glenfield (part of the Malabar STS Licence) in February 2005. The Penalty Infringement Notice (PIN) for this breach was received on 28 August 2005.
- West Hornsby Sewage Treatment Plant in June 2005, where approximately 200ML of treated effluent had high concentrations of ammonia. The PIN for this breach was received on the 13 January 2006.
- An Odour Incident related to odour complaints at Malabar Sewage Treatment Plant was received in January 2006. The PIN for this breach was received on the 9 February 2006.

Overall performance
The number of breaches of conditions relating to environmental impacts under licences issued by DEC for the sewage treatment systems was higher than previous years. However, the first two fines related to events, which occurred in 2004-05, although the fines were issued in 2005-06.

This increase is despite the fact that Sydney Water has continued to improve its overall compliance against the Environmental Protection Licence requirements.

Sydney Water is continuing to improve its environmental performance and aims to avoid reoccurrences of such incidents through the implementation of its certified Environmental Management Systems.

EPI 7(b) – Total number of breaches of conditions relating to environmental impacts under licences issued by DEC for the water treatment plants

2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
0	0	0	0	0	0

n.a. = not available

Performance for 2005-2006
There were no breaches during 2005-06 of conditions relating to water treatment plant licences issued to Sydney Water.

Overall performance
Over a six-year period, there were no breaches of conditions relating to environmental impacts under licences issued by DEC for Sydney Water's water filtration plants (North Richmond and Cascades WFPs).

Performance area indicator data and commentary

EPI 7(c) – Total number of prosecutions and notices (including penalty notices) issued to Sydney Water under the Protection of the Environment Operations Act 1997

(see page 16 Sydney Water Annual Report 2006)

Performance for 2005-06

During the period 1 July 2005 to 30 June 2006, Sydney Water was not convicted of any Tier 1 or Tier 2 offences under the *Protection of the Environment Operations Act 1997*.

During the period 1 July 2005 to 30 June 2006, Sydney Water was issued with three Tier 3 Penalty Infringement Notices (PINs). These were for breaches of conditions relating to environmental impacts under licences issued by the DEC for the sewage treatment systems (as described in EPI 7a).

Overall performance

Sydney Water has not been convicted of any Tier 1 offences under the *Protection of the Environment Operations Act 1997*.

Sydney Water has had two Tier 2 convictions under the *Protection of the Environment Operations Act 1997*. The first was in March 2000, where Sydney Water was fined $30,000 by the Land & Environment Court for an equipment failure that led to a discharge of aluminium sulphate from a sewage treatment plant, killing around 100 fish in Matahil Creek at Camden. The second was on 21 July 2000, when the Land and Environment Court fined Sydney Water $40,000 for an overflow of sewage into Camp Creek causing localised harm to the environment.

The total number of Tier 3 Penalty Infringement Notices is the same as that reported in EPI 7a with the addition of a notice being issued as a result of an odour complaint for a sewage pumping station (SPS 914) in 2000-01 and a notice related to smoke being emitted from a Sydney Water vehicle exhaust issued in 2004-05.

EPI 7(d) – Total number of prosecutions and Notices (including Penalty Notices) under the Protection of the Environment Operations Act 1997 issued to contractors engaged by Sydney Water

2001-02	2002-03	2003-04	2004-05	2005-06
n.a.	n.a.	n.a.	n.a.	0

n.a. = not available

Performance for 2005-06

There have been no prosecutions or Notices (including Penalty Notices) issued to contractors engaged by Sydney Water during 2005-06.

Overall performance

2005-06 is the first year that Sydney Water has reported on this indicator.

Performance area indicator data and commentary

SEWAGE TREATMENT PLANT (STP) EFFLUENT QUALITY

EPI 6(a) – Total mass of phosphorus discharged to streams/rivers from inland STPs

(see page 17 Sydney Water Annual Report 2006)

Performance for 2005-06
The total mass of phosphorus discharged to streams/rivers from inland STPs in 2005-06 decreased compared to 2004-05 despite continued population growth in the Sydney catchment.

A revised statistical method for calculating the load was utilised for 2005-06, which now aligns effluent loads to the assessable pollutant loads calculated for the Load Based Licence (LBL) as defined by the EPA load calculation protocol. This revised method now incorporates loads from bypasses for those plants that had a secondary bypass point such as St Marys and Winmalee STPs and therefore will consistently record higher loads than the previous method. The revised method makes a marginal difference and therefore still allows a direct comparison to be made to historical data.

In addition, 2005-06 also includes loads from the Gerringong-Gerroa plant, which historically were not included as this indicator previously reported on loads to the Hawkesbury-Nepean River only.

Therefore, a real reduction in the total phosphorus load to the inland rivers is evident compared to previous years. This decrease is mainly due to the closure of Glenbrook STP and diversion of flows to the upgraded Penrith STP. To a lesser degree, reductions in phosphorus discharges were also experienced at Blackheath, Quakers Hill, West Hornsby and Hornsby Heights STPs.

Overall performance
Since 1995, Sydney Water has achieved significant reductions in phosphorus loads discharged to inland rivers from inland STPs, despite rapid population growth in western Sydney. This phosphorus load reduction is a direct result of investment strategies including decommissioning of old and poorly performing plants, and the transfer of flows to newer facilities that treat to a higher standard. Further improvements are anticipated with the completion of the West Camden upgrade scheduled for late 2007.

EPI 6(b) – Total mass of nitrogen discharged to streams/rivers from inland STPs

(see page 16 Sydney Water Annual Report 2006)

Performance for 2005-06
The total mass of nitrogen discharged to streams/rivers from inland STPs in 2005-06 continues to gradually decrease despite continued population growth.

The decommissioning of Glenbrook STP is the main contributor to this decreased load, with flows diverted to the upgraded Penrith STP to receive a higher standard of treatment. Other sewage treatment plants such as West Hornsby and Hornsby Heights STPs have also achieved process improvements that contribute to this decreased load.

A revised statistical method for calculating the load was utilised for 2005-06, which now aligns effluent loads to the assessable pollutant loads calculated for the Load Based Licence (LBL) as defined by the EPA load calculation protocol. This revised method now incorporates loads from bypasses for those plants that had a secondary bypass point (such as St Marys and Winmalee STPs) and therefore will consistently record higher loads than the previous method. The revised method makes marginal difference to most plants, and so still allows a direct comparison to be made to historical data.

In addition, 2005-06 also includes loads from the Gerringong-Gerroa plant, which historically were not included as this indicator previously reported on loads to the Hawkesbury-Nepean River only.

Performance area indicator data and commentary

Overall performance
Since 1995, Sydney Water has achieved significant reductions in nitrogen loads being discharged to the river system from our inland sewage treatment plants despite rapid population growth in western Sydney. This nitrogen load reduction is a direct result of investment strategies including decommissioning of old and poorly performing plants, and the transfer of flows to newer facilities that treat to a higher standard.

Further improvements are anticipated with the completion of upgrades such as the West Camden upgrade scheduled for late 2007 and the planned stage 2 amplification of Rouse Hill STP.

EPI 6(c) – Total mass of suspended solids discharged from ocean STPs

(see page 17 Sydney Water Annual Report 2006)

Performance for 2005-06
The total mass of suspended solids (SS) discharged from ocean STPs in 2005-06 decreased by 4 per cent compared to the previous year.

Decreases in load occurred at:

- Bondi STP due to improved process reliability
- Cronulla STP due to improved process performance
- Wollongong STP with the conversion of the plant to tertiary treatment and the diversion of dry weather flows from Bellambi and Port Kembla STPs
- Shellharbour STP due to the completion of amplification works.

The overall decrease in load was significantly offset by increased loads from the Malabar (3 per cent increase) and North Head STPs (1.5 per cent increase). As the actual loads from these plants are significantly higher than the other eight coastal STPs, any increase from these plants significantly overshadows overall performance.

A revised statistical method for calculating the load was utilised for 2005-06, which now aligns effluent loads to the assessable pollutant loads calculated for the Load Based Licence (LBL) as defined by the EPA load calculation protocol. This revised method now incorporates loads from bypasses for those plants that had a secondary bypass point and therefore will consistently record higher loads than the previous method. The revised method however makes marginal difference for most coastal treatment plants (i.e. less than 2 per cent), and therefore still allows a direct comparison to be made to historical data.

Overall performance
Since the late 1990s, there has been a gradual decrease in suspended solids discharged from the ocean sewage treatment plants. The upgrade of Cronulla STP in April 2001 from a primary to tertiary treatment plant contributed to the decrease between 2001-02 and 2002-03. The downward trend experienced this year (2005-06) has been achieved through the completion and realisation of significant investment in the Illawarra Wastewater Strategy and the Reliability and Improvement Program at Bondi STP.

Minor improvements are expected for coming years from process improvement works, however will not be as significant at this current year as the majority of upgrades have come or are coming to completion. Planned upgrades such as that for North Head are designed to target reliability and not performance. There are currently no plans to improve suspended solids performance at the ocean plants as they are operating within their licence requirements and there is no evidence of any significant environmental impacts from these discharges.

Performance area indicator data and commentary

EPI 6(d) – Total mass of grease discharged from ocean STPs

(see page 17 Sydney Water Annual Report 2006)

Performance for 2005-06

The total mass of oil and grease discharged from ocean STPs in 2005-06 is similar to historical performance.

A revised statistical method for calculating the load was utilised for 2005-06, which now aligns effluent loads to the assessable pollutant loads calculated for the Load Based Licence (LBL) as defined by the Environment Protection Authority load calculation protocol. This revised method now incorporates loads from bypasses for those plants that had a secondary bypass point and therefore will consistently record higher loads than the previous method. The revised method however makes marginal difference for most coastal treatment plants (i.e. less than 2 per cent), and therefore still allows a direct comparison to be made to historical data.

Note 1: The 2004-05 Sydney Water Annual Report reported oil and grease load from ocean plants as 9893 tonnes. This figure was incorrect as it did not account for oil and grease loads from Bombo, Shellharbour, Warriewood and Wollongong STPs. The figure has been recalculated based on the new method and readjusted to 10,071 tonnes. On this basis, performance in 2004-05 was consistent with current trends.

Overall performance

Since the late 1990s there has been a relatively consistent discharge of oil and grease loads discharged with minor fluctuations year to year. However as population growth continues and influent loads increase, Sydney Water has been able to maintain good performance over the years and still ensure the ocean sewage treatment plants are operating within their design capability for the removal of oil and grease.

There are currently no plans to improve oil and grease performance at the ocean plants as they are operating within their licence requirements and there is no evidence of any significant environmental impacts from these discharges.

SEWAGE TREATMENT SYSTEM DISCHARGES

EPI 8(a) – Total volume and total number of controlled sewage overflows that occur in dry weather and in wet weather

	2001-02	2002-03	2003-04	2004-05	2005-06
Total volume of controlled sewage overflows in dry weather	n.a.	n.a.	n.a.	n.a.	4.2 ML
Total number of controlled sewage overflows in dry weather	n.a.	n.a.	n.a.	n.a.	45
Total volume of controlled sewage overflows in wet weather	17,700 ML	20,700 ML	5500 ML	11,200 ML	3700 ML
Total number of controlled sewage overflows in wet weather	24	19	16	17	18

n.a. = not available

Performance for 2005-06

Dry weather controlled sewage overflows are caused by sewer pipe blockages, primarily due to sewer pipe collapses or tree roots downstream of designed overflow points. The number of incidents (45) is a small percent of the total number of blockages (approximately 20,000) as most blockages overflow at points other than designed overflow points. Prior to the incident, it is difficult to detect the location of these blockages within the 20,000 km of mains. There is expected to be a large variation in the number of incidents on a year-to-year basis. The volume of overflow is affected by the size of the main and either the duration of the overflow event in dry weather or the duration of the storm event in wet weather.

Performance area indicator data and commentary

The volume of wet weather overflows for 2005-06 was relatively low and reflects the rainfall weather pattern, which consisted of 18 short duration storms in 2005-06.

Overall performance
The number of wet weather overflows is determined each year by running the hydraulic sewer system models. These models require a full 12 months of data to be run, and are run once per year. The models are based on sewer and rain gauging of the systems, and are compared to the 10- year time series data from 1985 to 1994. The 1985 to 1994 period was adopted to standardise the rainfall so a comparison of the asset performance could be made over time, as this period is representative of the over 100 years of rainfall records in Sydney with both dry and wet periods included. This allows for a direct comparison of system environmental performance (using wet weather overflow frequency), between two model runs, each with different assets condition/configuration and population characteristics but using the same climatic conditions. This will allow for year-to-year comparison in future years.

EPI 8(b) – Total volume of controlled sewage overflows that occur in dry weather and in wet weather expressed as percentage of total sewage effluent discharged to the environment *(see page 18 Sydney Water Annual Report 2006)*

Performance for 2005-06
For 2005-06, the total volume of dry weather controlled sewage overflows is 4.2ML and for wet weather is 3,700ML. Compared to the total volume of sewage effluent discharged to the environment (428, 997ML), the wet and dry sewage overflow volume expressed as a percentage equates to less than 1 per cent of total effluent volume discharged to the environment.

In 2005-06, the wet weather SewerFix Program focused on works in the Port Hacking and Georges River catchments to reduce the occurrence of wet weather overflows in these catchments. This program prioritises catchments to be targeted on the basis of performance issues including repeat discharges to customer properties, environmental sensitivity or high growth.

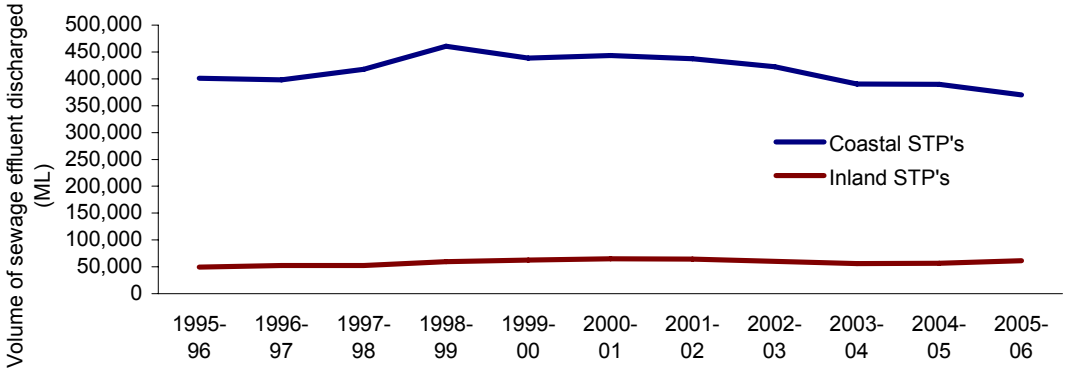
Overall performance
The number of wet weather overflows is determined each year by running the hydraulic sewer system models. These models require a full 12 months of data to be run, and are only run once per year. The models are based on sewer and rain gauging of the systems, and are compared to the 10- year time series data of 1985 to 1994.

The 1985 to 1994 period was adopted to standardise the rainfall so a comparison of the asset performance could be made over time, as this period is representative of the over 100 years of rainfall records in Sydney with both dry and wet periods represented. This allows for a direct comparison of system environmental performance (using wet weather overflow frequency), between two model runs, each with different assets condition/configuration and population characteristics but using the same climatic conditions. This will allow for year-to-year comparison in future years.

Performance area indicator data and commentary

SEWAGE EFFLUENT VOLUME

EPI 5 – The volume of sewage effluent discharged to the environment from inland sewage treatment plants and ocean treatment plants



Performance for 2005-06
Flows discharged from ocean sewage treatment plants in 2005-06 continued to gradually decline, whilst discharges at inland plants remained steady.

Overall performance
Since 1998-99, sewage volumes at ocean plants continue to steadily decline, whilst volumes at inland plants remain steady. Effluent discharges to the environment from sewage treatment plants reflect seasonal weather patterns and population growth within Sydney Water's areas of operation.

The general decline at the ocean plants is a result of the drought conditions experienced over the last few years. Inland plants have not experienced a similar decline, as the reduction in flows by the drought have been off-set by the continued growth in the outer suburbs, particularly the north-west sector of Sydney such as the Rouse Hill Regional Scheme.

TRADE WASTE AGREEMENTS

EPI 13 – Total mass of heavy metals received under trade waste agreements with Sydney Water

Metal	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Cadmium (kg/day)	0.194	0.233	0.189	0.192	0.131	0.085	0.067	0.033	0.007	0.022	0.048
Chromium (kg/day)	5.329	4.972	3.136	2.685	2.957	2.015	3.017	1.731	1.603	1.121	1.740
Cobalt (kg/day)	0.0798	0.0022	0.0017	0.0002	0.0020	0.0015	0.0022	0.0038	0.0005	0.0005	0.0039
Copper (kg/day)	8.518	8.676	6.736	3.640	4.110	3.361	3.445	3.145	4.593	2.092	1.756
Iron (kg/day)	51.34	36.97	26.78	28.20	52.07	32.57	26.78	27.61	38.53	39.05	56.59
Lead (kg/day)	1.221	1.564	1.307	1.894	0.958	0.465	0.504	0.351	0.351	0.227	0.184
Manganese (kg/day)	0.790	0.699	0.854	0.606	1.383	0.860	0.706	0.674	0.591	0.571	0.774
Mercury (kg/day)	0.0380	0.0324	0.0654	0.0530	0.0245	0.0164	0.0270	0.0124	0.0058	0.0037	0.0017
Molybdenum (kg/day)	0.000	0.000	0.040	1.426	0.605	0.049	0.020	0.032	0.011	0.003	0.010
Nickel (kg/day)	5.310	5.270	3.449	3.285	4.730	4.409	4.989	3.604	2.555	2.251	2.398
Silver (kg/day)	0.526	0.785	0.887	0.303	0.341	1.577	2.058	0.852	0.315	0.460	0.620
Tin (kg/day)	1.333	0.858	0.654	0.346	0.353	0.265	0.144	0.153	0.131	0.110	0.052
Uranium (kg/day)	0	0	0	0	0	0	0	0	0	0	0
Zinc (kg/day)	14.29	14.85	10.78	8.91	10.55	8.26	10.700	12.14	11.05	9.40	11.67

Performance area indicator data and commentary

Performance for 2005-06
The mass of heavy metals discharged was within totals specified in trade waste consents.

For Cobalt, Chromium, Molybdenum and Silver, the major sources are businesses involved in powder coating and electroplating of metal surfaces and photographic film processing. For Cadmium, Iron, Manganese, Nickel and Zinc, the major sources are businesses involved in the treatment of wastes.

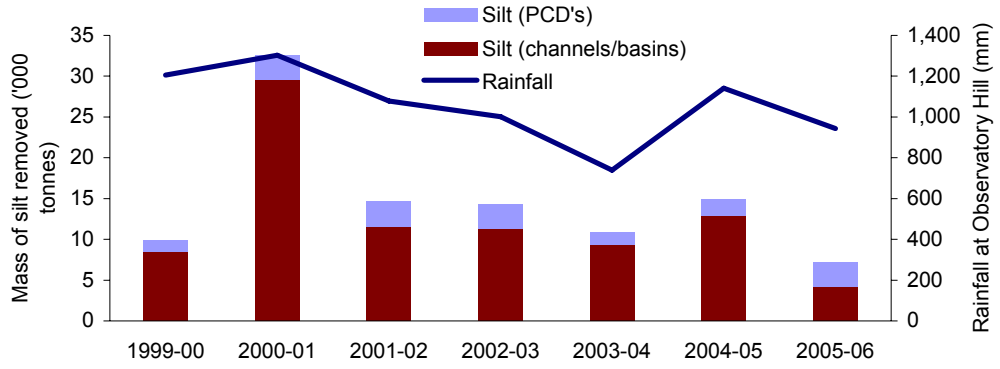
Overall performance
The results show a general decrease in mass of heavy metals since 1995-96. These amounts of heavy metals are appropriate for the continued production of biosolids that meet the standards for reuse in agriculture, and effluent that meets discharge licence criteria. Sydney Water actively manages trade waste inputs to ensure that wastewater and biosolids production are not adversely affected.

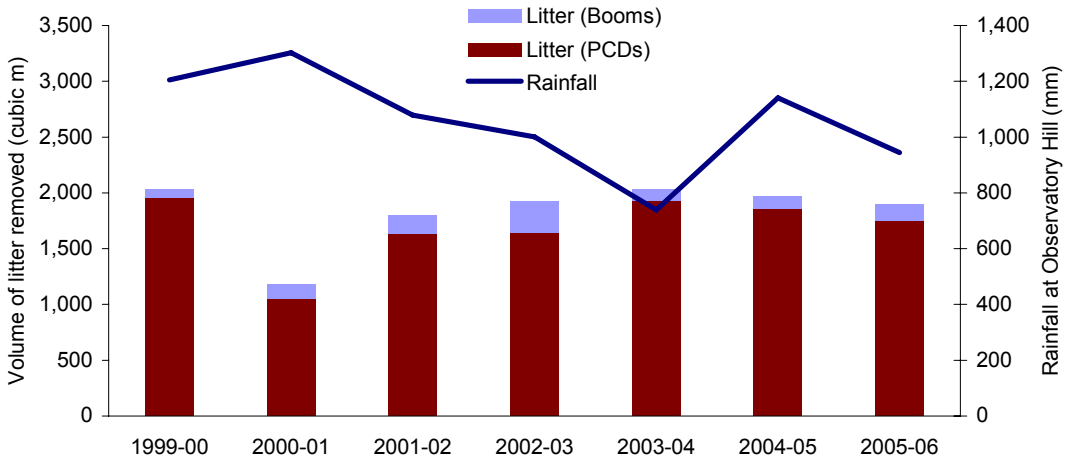
Increases in the mass of some heavy metals since 2003-04 are due to:

- Sydney Water performing analysis based on metal scans for all metals, rather than on individual metals as before. This has led to more trade waste consents issued with consent conditions on a greater number of metals.
- The increased prevalence of trade waste consents granted to support site water management where companies are undertaking remediation of old industrial sites for residential development.

STORMWATER

EPI 9 – Total mass of silt and litter removed from Sydney Water's stormwater system in a financial year and the rainfall at Observatory Hill for the same period





Performance area indicator data and commentary

Performance for 2005-06
The mass of silt removed from pollution control devices (PCDs) in Sydney Water's stormwater system in 2005-06 has increased from the previous year whilst silt removed from the channels and basins has decreased. Overall, the total mass of silt removed from Sydney Water's stormwater channels in the last financial year decreased from the previous year due to changes in silt removal practices as part of the review of the Desilting Strategy.

The total mass of litter removed from Sydney Water's stormwater system has remained relatively constant from the previous year.

Overall performance
The mass of silt and litter removed is dependant on the number of operating PCDs as well as variable catchment conditions, which includes factors such as rainfall, environmental controls on development, up stream operations and maintenance activities and community education programs.

The number of operating PCDs has increased from 17 in 1999-00 to 44 in June 2006. Variable catchment conditions combined with the 'as required', non-routine removal of sediment from large PCDs, make comparison and correlation between the number of devices and total litter and sediment removed difficult to ascertain.

In 2000-01, the increase in silt removed relates to desilting from stormwater channels to improve the appearance of waterways prior to the Sydney Olympics.

Since 2005, Sydney Water has been undertaking a review of the Desilting Strategy. Initial changes to the strategy have resulted in an overall reduction in the desilting program delivered in 2005-06. In 2005-06 desilting was undertaken only in those channels where sediment removal was identified as necessary to address capacity constraints and odour and aesthetics issues.

RECREATIONAL WATER QUALITY

EPI 10 – Percentage of time recreational water complied with the recreational water quality guidelines as reported by DEC's Beachwatch and Harbourwatch
(see page 20 Sydney Water Annual Report 2006)

Performance for 2005-06
This indicator reports on the percentage of Beachwatch and Harbourwatch sites that comply with Beachwatch swimming water quality guidelines more than 90 per cent of the time.

For the 2005-06 reporting period, the percentage of Beachwatch and Harbourwatch sites in Sydney and the Illawarra region that complied more than 90 per cent of the time, was 88 per cent for the summer season and 86 per cent for the winter season.

From 2005-06, 65 Harbourwatch sites were also included in the calculation of this indicator. Only 62 of the 65 sites had compliance data for the period. Harbourwatch sites generally have lower compliance against the swimming water quality guidelines than Beachwatch sites due to poorer flushing in estuaries. The decrease in winter from the 2004-05 results was attributed to the inclusion of the harbour sites failing on enterococci as these indicator organisms survive longer in the environment than faecal coliforms.

The equivalent figures for 2005-06, if only the Beachwatch sites were included, would be 90 per cent compliance for the summer season and 94 per cent compliance for the winter season.

Overall performance
Compliance against this indicator is largely driven by rainfall. The winter of 1998-99 and summer of 1999-2000 was a particularly wet period and this is reflected in poorer water quality compliance.

Performance area indicator data and commentary

The number of sites complying with Beachwatch Swimming Water Quality Guidelines more that 90 per cent of the time in recent years is largely due to drier weather conditions. Compliance levels during winter tended to be higher than in summer due to lower rainfall and fewer wet-weather related sewage and stormwater inputs.

The percentage of sites complying more than 90 per cent of the time in the summer season has steadily improved since the upgrade of Cronulla STP in April 2001. An overall improvement in results is expected to continue as Sydney Water finalises the Illawarra Wastewater strategy and continues to work to reduce sewage overflows.

Performance area indicator data and commentary

Efficient water use

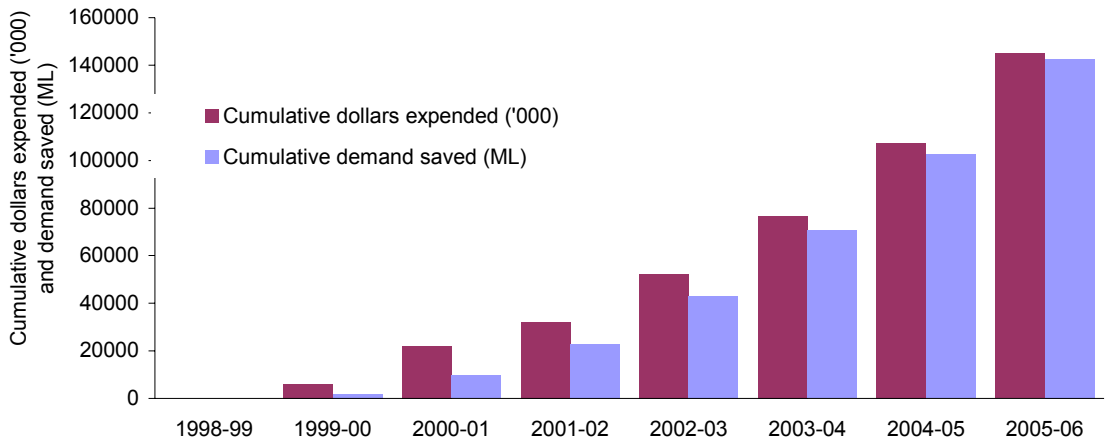
DEMAND MANAGEMENT

EPI 2(a) – Total volume of drinking water demand saved on account of demand management programs (including savings due to water recycled and reduced unaccounted for water) *(see page 25 Sydney Water Annual Report 2006)*

Performance for 2005-06
The total volume of drinking water demand saved on account of demand management programs has increased compared to 2004-05 by 8181 ML to a total of 40,135 ML. The main contributors to this increase in total water savings were Sydney Water's Active Leak Detection Program, the Every Drop Counts (EDC) Business Program, WaterFix Program and recycling programs. The programs are described in Sydney Water's 2005-06 Water Conservation and Recycling Implementation Report.

Overall performance
There has been a steady increase in total annual water demand savings since the commencement of the demand management program in 1999, and is forecast to continue in the future, as outlined in the Sydney Water's 2005-06 Water Conservation and Recycling Implementation Report.

EPI 2(b) – Cumulative dollars expended on demand management versus cumulative demand saved



Performance for 2005-06
Both cumulative dollars expended on demand management and cumulate demand saved have increased from the previous year. Since the start of the Demand Management Program in 1999, Sydney Water has spent $144,887,000 and has achieved cumulative demand saving of 142,656 ML over the same period.

Overall performance
Sydney Water's expenditure and savings (from all programs) have been tracked since Sydney Water's Demand Management Program began in 1999. Annual expenditure on the program has generally increased over the years. Water savings have sometimes lagged behind expenditure, this is particularly the case with large recycling projects requiring significant capital expenditure before the project can be commissioned and savings realised.

Performance area indicator data and commentary

POTABLE WATER DRAWN

EPI 1(a) – Total volume of water drawn by Sydney Water from all sources

(see page 25 Sydney Water Annual Report 2006)

Performance for 2005-06

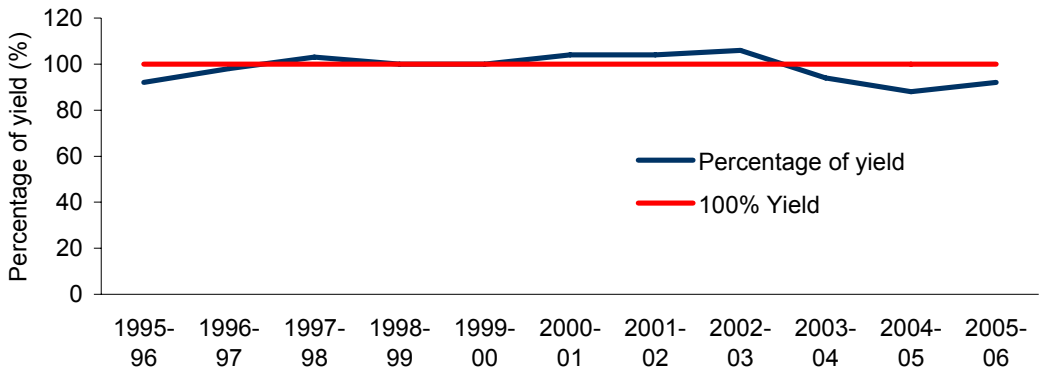
The total volume of potable water drawn in 2005-06 increased by 1893 ML over that drawn in 2004-2005.

The increase in consumption was due to drier than average weather conditions during the second half of the year. If climactic variables and population growth are taken into account, savings during 2005-06 were higher than during 2004-05.

Overall performance

The trends in potable water drawn are reflective of the trends in demand due to drought restrictions, population growth and changing climactic conditions. The lower demands in 1995-96, 1996-97 and 2003-04 to 2005-06 reflect the reductions in demand due to the presence of restrictions (1 November 1994 to 16 October 1996, and 1 October 2003 to date). In the intervening period demand has generally been increasing, due at least in part to population growth, and also due to hotter and drier conditions in recent years.

EPI 1(b) – Potable water expressed as a percentage of yield



Performance for 2005-06

Potable water drawn expressed as a percentage of yield has increased from 2004-05 due mainly to the yield being revised down from 600 ML/year to 575 ML/year as part of the review of the 2006 NSW Government ‘s Metropolitan Water Plan. Although the percentage has gone up slightly compared to last year, potable water drawn is still below yield.

Overall performance

The Sydney Catchment Authority using a hydrological computer model estimates the amount of water that can be drawn from Sydney’s supply system each year. Annual water availability, generally referred to as system ‘yield’, is estimated by reference to (among other things):

- the system’s total storage capacity
- inflows to the system that have been observed over the last 96 years which are amended as additional data becomes available and includes several drought periods;
- savings expected to be achieved by imposing water restrictions during drought
- the releases from the dams needed for river health.

Performance area indicator data and commentary

Until 2004-05, the yield used to calculate this figure was estimated at 600,000 ML/year. Yield was revised to 575,000 ML/year in the 2006 NSW's Government Metropolitan Water Plan. Historically demand has exceeded yield outside years with restrictions. However, the mix of supply and demand measures set out in the Metropolitan Water Plan are designed to meet Sydney's growth needs into the future within the system yield.

EPI 1(c) – Potable water drawn expressed on a per capita basis

(see page 25 Sydney Water Annual Report)

Performance 2005-06

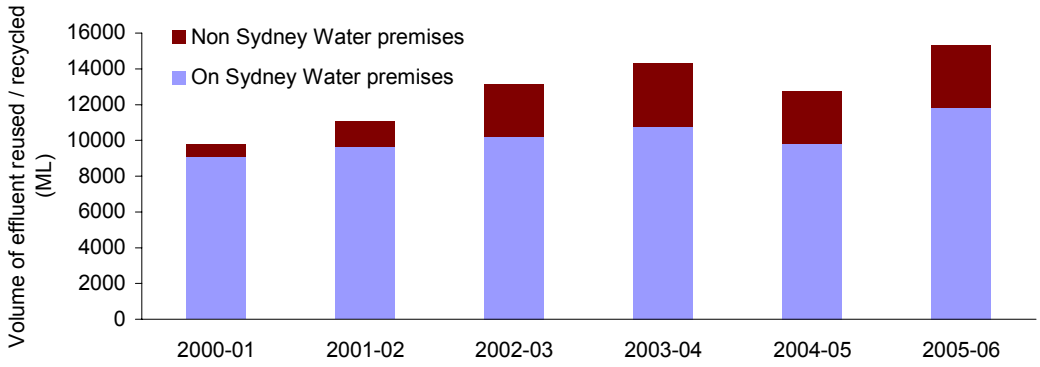
Potable water drawn expressed on a per capita basis has reduced by 2 litres per capita per day (lcd) compared to 2004-05. This reduction is due to increased savings from demand management programs and savings from ongoing water restrictions. This is a good result given that consumption is not weather corrected and the drier than average conditions experienced during the second half of the year.

Overall performance

Per capita demand has trended down over the past three years primarily due to the drought restrictions. It is however difficult to draw any conclusions about trend in per capita demand, prior to restrictions, as they reflect year to year fluctuations due to climactic conditions.

WATER RECYCLED

EPI 4(a) – Total volume of sewage effluent reused/recycled (report volumes on-site Sydney water premises and off-site)



Performance for 2005-06

In 2005-06, there has been an increase in on-site and off-site effluent reuse from the previous year. The on-site reuse volumes relate to water management initiatives at sewage treatment plants. Water efficiencies at sewage treatment plants continue to decrease overall on-site water use, whilst the progressive replacement of drinking water use by reuse water is being implemented. The 2005-06 results reflect the increased on-site reuse at North Head sewage treatment plant (STP) following the commissioning of a 2ML/day water recycling plant in September 2005.

Overall performance

There is a continuing upward trend for both on-site and off-site usage. Off-site reuse is primarily for irrigation and garden watering in residential schemes. These demands can fluctuate year-to-year due to seasonal and rainfall influences.

Performance area indicator data and commentary

EPI 4(b) – Potable water use as a percentage of total water used at each sewage treatment plant as at 2003-04

Coastal STPs	Percentages			Actual ML/yr used
	2003-04	2004-05	2005-06	
Bellambi	16.1	20.8	100.0	23
Bombo	1.5	3.3	0.43	0.3
Bondi	27.6	26.9	13.62	162
Cronulla	3.9	2.9	1.26	7.9
Fairfield	100.0	100.0	100.0	5.4
Glenfield	9.6	8.2	1.61	29
Liverpool	7.3	10.8	11.81	102
Malabar	29.4	23.2	28.62	199
North Head	47.2	54.5	3.14	91
Port Kembla	94.8	100.0	48.63	8.9
Shellharbour	25.5	28.5	21.12	50
Warriewood	5.5	1.54	0.56	2.5
Wollongong	6.5	76.5	7.19	44

Inland STPs	Percentages			Actual ML/yr used
	2003-04	2004-05	2005-06	
Blackheath	6.7	3.4	16.86	0.4
Castle Hill	4.8	6.8	9.14	24.6
Glenbrook	0	10.1	N/A	0
Hornsby Heights	0.12	0.4	0.32	1.1
Mt Victoria	66.7	3.6	28.3	1.8
North Richmond	3.8	2.9	3.1	0.01
Penrith	1.75	3.5	9.55	12.6
Picton	0	0	0.31	0.02
Quakers Hill	4.5	0.4	2.77	2.5
Richmond	0.2	0.3	0.25	0.2
Riverstone	1.8	3.4	3.57	11.7
Rouse Hill	1.2	0.2	1.7	7.7
St Marys	0.13	0.14	0.11	0.7
Warragamba	0.6	0.16	0.13	0.1
West Camden	0.01	0.01	0.65	1.3
West Hornsby	0.35	1.1	0.05	0.2
Winmalee	0.54	1.2	1.36	0.4

Performance for 2005-06

Overall, the 2005-06 percentage of potable water used at each sewage treatment plant is 6 per cent and is a substantial improvement over the 14 per cent potable water used in the previous year.

Commissioning of the 2ML/day water recycling plant at North Head STP in September 2005 resulted in on-site reuse replacing potable water for all process activities and was a significant contribution to the improved outcome. Bondi STP has also shown good water efficiency gains this year with the removal of the three old screenings handling units which previously required potable water to be used for washing down. The new screenings handling unit now uses filtered effluent for wash down purposes.

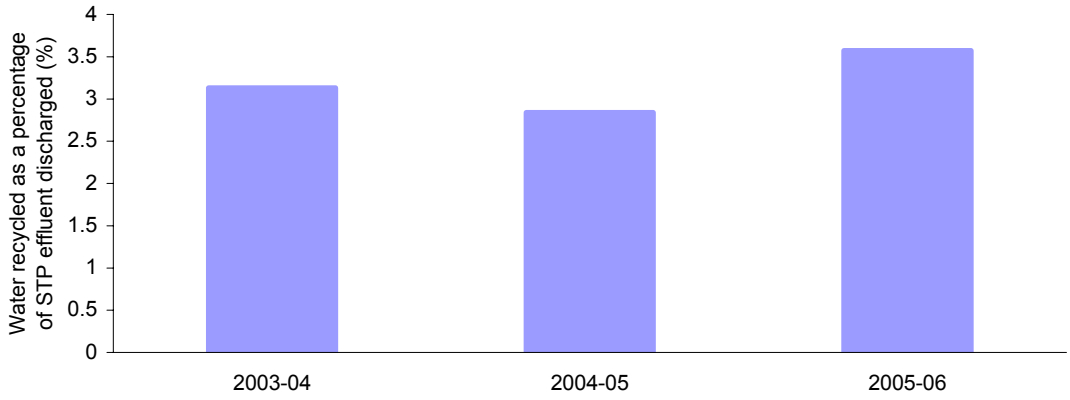
In several cases the percentages reported for each plant will fluctuate significantly year-to-year. This is directly a function of the fact that very little water gets used on most sites. In cases such as the Blackheath and Mt Victoria sewage treatment plants, potable water is only used for staff facilities and, though the percentage may fluctuate, the actual volume of potable water used is insignificant. A major on-site maintenance activity in any year can also influence an annual fluctuation.

Bellambi and Fairfield are storm treatment plants, and only come on-line during heavy rainfall. There is no access to treated effluent on a regular basis to displace potable water usage and potable water is the only source of water available on site. Usage on these sites is minimised where possible.

Performance area indicator data and commentary

Overall performance
Water efficiencies and recycling continue to be pursued and achieved at sewage treatment plants. The planned progressive installation of water recycling plants at Bondi, Malabar and Shellharbour STPs over the coming years will ensure that the downward trends continues for the largest water users.

EPI 4(c) – Water recycled expressed as a percentage of total sewage effluent discharged



Performance for 2005-06
In 2005-06 there was an increase in volume of water recycled (as a percentage of total sewage effluent discharged) from the previous year. Though this equates to a 0.7 per cent increase, the actual volume recycled for 2005-06 totalled 15,283 ML, as compared to 12,751 ML in 2004-05. This is a 20 per cent increase in actual water recycled. The main contributing factors are:

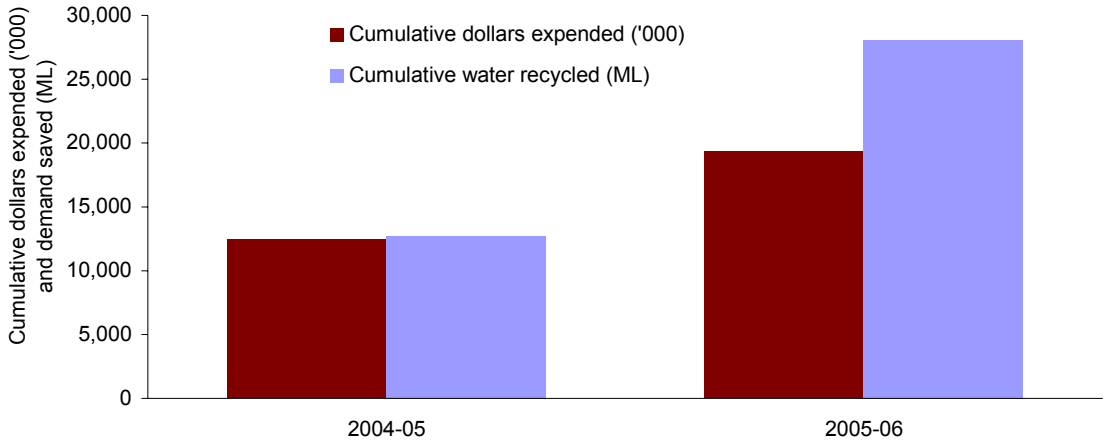
- the increased on-site reuse at North Head sewage treatment plant following the commissioning of 2ML/day water recycling plant in September 2005
- a 25 per cent increase in recycled water output at the Rouse Hill Recycled Water Scheme.

Overall performance
Performance against this indicator can vary from year to year. For example, off-site irrigation reuse volumes can fluctuate from year to year due to seasonal and rainfall influences.

On-site reuse volumes are increasing due to progressive water reuse gains at sewage treatment plants. The planned installation of water recycling plants at Bondi, Malabar and Shellharbour STPs over the coming years will ensure that the increase in on-site water recycling will continue.

Performance area indicator data and commentary

EPI 4(d) – Cumulative dollars expended on water recycling verses cumulative water recycled



Performance for 2005-06
In 2005-06, an additional $6.86 million was spent on operating and capital costs for recycled water schemes. 2005-06 saw the effects of the $2.96 million spent in 2004-05 on the recycled water treatment facility at North Head STP, which was commissioned in September 2005. This new plant, with a total capacity of 2 ML/day, along with new UV reactor at Rouse Hill STP, contributed a significant portion of the increase in recycled water in 2005-06.

Overall performance
Sydney Water has several recycled water schemes that are in the delivery phase, including an industrial dual reticulation scheme at Wollongong, an expansion of the existing residential dual reticulation scheme at Rouse Hill, industrial and agricultural schemes at Hoxton Park and Ropes Crossing, and an agricultural reuse scheme at West Camden. These five schemes alone are expected to recycle approximately 11,560 ML/year by 2015.

Overall Sydney Water plans to spend an additional $145 million on capital expenditure by 2010-11 on additional recycled water schemes.

WATER LEAKAGE

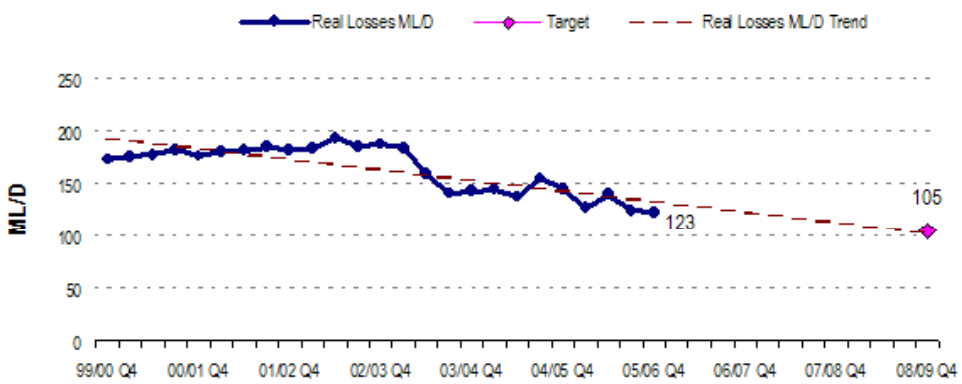
EPI 3 – Water leakage expressed as a percentage of potable water drawn

(see page 29 Sydney Water Annual Report 2006)

Performance for 2005-06
Percentage water leakage is related to total water demand and the level of inspections and repair conducted. When demand falls, leakage figures (as a proportion of demand) will increase. A reduction in demand, together with increased efforts in Sydney Water's Active Leak Detection Program has produced a result of 8.5 per cent for 2005-06. This equates to an estimated water leakage volume for 2005-06 of 44.9 GL/year or 123 ML/day (ML/d).

Overall performance
The leakage rate of 8.5 per cent in 2005-06 has decreased from 10.7 per cent since 2002-03 due to significant investment in Sydney Water's Active Leak Detection Program. The program involves using sophisticated acoustic and electronic equipment to scan the water network to pinpoint hidden leakage and carrying out repairs to these identified leaks. The actual water leakage volume reduction is shown in the graph below.

Performance area indicator data and commentary



The leakage rate decreased after 2002-03, coinciding with a dramatic increase in the rate of leak detection. The number of kilometres of water mains inspected as part of the program has increased from 4400 km in 2002-03 to 7000 km in 2003-04, and 18,011 km in 2005-06, a length equivalent to the whole reticulation network.

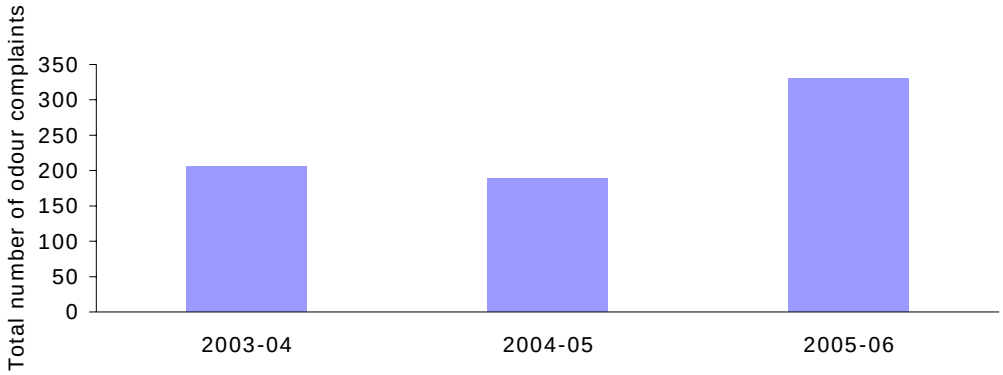
By the end of 2005-06, Sydney Water's Active Leak Detection Program is estimated to have achieved a total sustainable reduction in leakage of at least 50 ML/d. The water-balance calculation indicates over the same period that actual leakage has fallen by about 65 ML/d (188 ML/d – 123 ML/d). The miss-match in the two independent estimates is largely due to the benefits of the active program of leak detection and repair, improved response times to leaks reported by customers and better accounting for water used operationally by Sydney Water.

Performance area indicator data and commentary

Customer service

COMPLAINTS

EPI 20 – Total number of odour complaints generated from the sewage treatment plants or the sewerage system

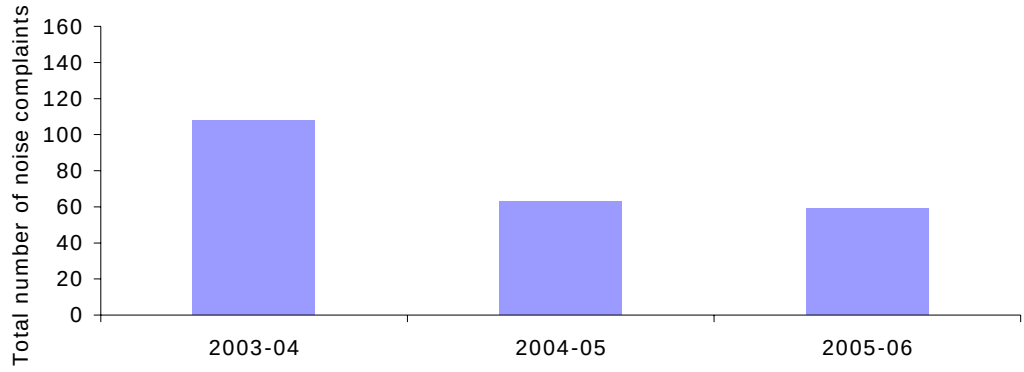


Performance for 2005-06
There were 331 odour complaints generated from the sewage treatment plants or the sewerage system in 2005-06. Approximately 75 per cent of these complaints were attributable to sewage treatment plants.

There were more odour complaints this year than in previous years. The reason for this is that there were operational issues at Malabar STP, which initiated an above average number of complaints in January and February 2006. The odours at Malabar STP are being investigated by the Department of Environment and Conservation (DEC), and appropriate preventative actions are being reviewed.

Overall performance
The interpretation of a complaint was varied in the 2005-2010 Operating Licence, and as result the reported number of odour complaints related to the sewage treatment plants or the sewerage system have been revised for 2004-05 and 2003-04 to enable comparison.

EPI 21 – Total number of noise complaints generated from Sydney Water's construction or operational activities



Performance for 2005-06
The number of noise complaints remained low during 2005-06. Sydney Water will continue to aim for future reduction through strategies such as the Noise Management Code of Behaviour for staff and contractors.

Performance area indicator data and commentary

Overall performance

This year has shown the lowest number of noise complaints since Sydney Water has kept noise complaint records.

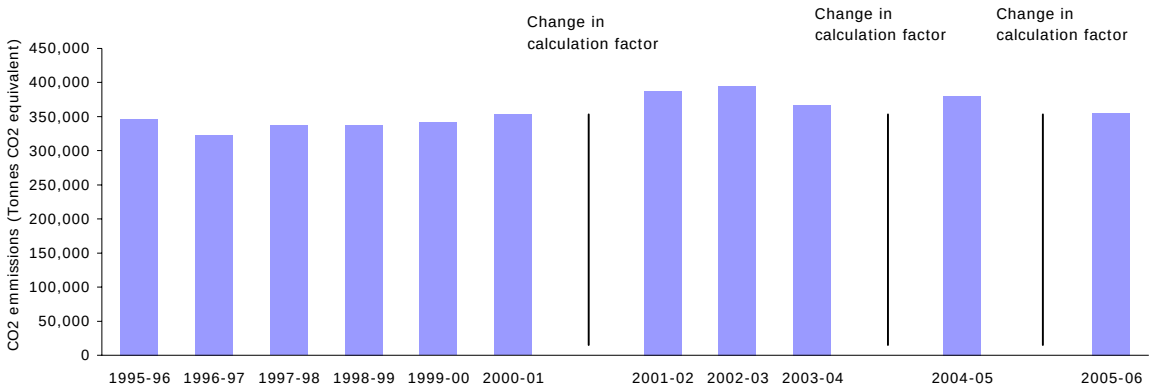
Performance area indicator data and commentary

Efficient use of resources

ENERGY

Greenhouse gases

EPI 15 – CO_2-equivalent emissions through purchase of electricity, fuel and gas



Performance for 2005-06
The predominant contributor to Sydney Water's energy related greenhouse emissions is from the use of electricity (96.4 per cent) followed by transport fuel (3.2 per cent) and natural gas (0.4 per cent) usage.

Sydney Water has achieved a good result this year with a 6.6 per cent decrease in greenhouse gas emissions from the purchase of electricity, fuel and gas. This decrease was mainly due to a reduction in the consumption of Natural Gas, reduced vehicle numbers and improved fuel efficiency of the vehicle fleet.

Greenhouse gas emissions from the use of electricity in Sydney Water were reduced through generation of renewable energy and purchasing Green Power. Although there was an overall increase in usage, Sydney Water achieved an 11 per cent increase in the amount of renewable energy generated and Green Power purchased through improved operation of Malabar and Cronulla cogeneration plants and a slight increase in the amount of Green Power procured.

To determine the CO_2 emissions for electricity, Sydney Water uses the carbon intensity factor for NSW electricity as published by the Australian Greenhouse Office. This factor fell from 1.054 in 2004-05 to 0.985 in 2005-06.

Through the implementation of the Fleet Improvement Plan there has been a 19.4 per cent reduction in greenhouse gas emissions from vehicles from last year. This reduction exceeds NSW Government targets of a 10 per cent reduction in greenhouse gas emissions in 2005-06 from the 2004-05 baseline, as set out in the NSW Cleaner Vehicles Action Plan. This is a considerable achievement as the total number of kilometres travelled through the reporting period increased by 3.7 per cent.

Overall performance
Greenhouse Gas Emissions have decreased by around 10 per cent from a peak of 394,420 tonnes CO_2 in 2002-03. This is mainly due to a 6.4 per cent reduction in electricity consumption along with a 3 per cent reduction in the published CO_2 GHG coefficient, and a 25 per cent reduction in emissions from the vehicle fleet.

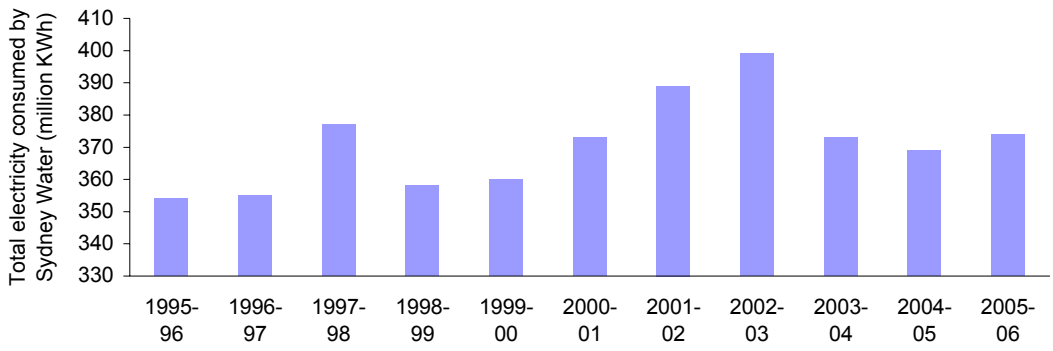
The major impacts on energy use are the amount of water delivered, and the amount of wastewater treated along with the amount of treatment to meet the improving effluent quality. Since 2002-03 there

has been a decrease in the amount of water delivered and wastewater treated. Although over the same period there has been an increase in the amount of treatment required and an increase in the intensity indicators (as shown by the electricity indicators EPI 16b and EPI 16c in the following section). The decrease in the amount of water delivered and wastewater treated has resulted in a reduction in total energy use.

Greenhouse emissions from Sydney Water vehicles have decreased by over 36 per cent since 1998-99. This has been due to an 18 per cent reduction in the vehicle kilometres travelled, mainly through corporate realignment, and an improvement in the efficiency of the fleet from an average of 15.3 L/100km to 10.7 L/100km through the use of more fuel-efficient vehicles.

Electricity consumption

EPI 16(a) – Total electricity consumed by Sydney Water



Performance for 2005-06
Total electricity consumed by Sydney Water's operations increased by 1 per cent from 369,112,352 kWh to 373,659,069 kWh for 2005-06. Although Sydney Water only purchased 0.6 per cent more from the electricity retailers, there was an 18 per cent increase in the energy generated and used from our cogeneration plants at Malabar and Cronulla Sewage Treatment Plants through more reliable operation. This is a result of the maintenance contract put in place in 2005 between Sydney Water and its energy partners. This year, Sydney Water has seen the highest ever generation from its cogeneration plants.

Sydney Water's water and wastewater operations contribute to the majority of electricity consumed. The percentage of usage is divided into the following areas:

- Sewage treatment plants 49%
- Water pumping stations 35%
- Sewage pumping stations 8%
- Offices 3%
- Water filtration plants 3%
- Other (e.g. depots, reservoirs, etc.) 2%

The major areas where energy use increased were sewage treatment plants by 1.9 per cent and water pumping stations by 2.3 per cent. Trends in electricity usage by these facilities were affected by the increase in treatment and an increase in the amount of water delivered from last year.

Overall performance
The trend in energy use over the past three years has stayed relatively constant as demonstrated by an increase of only 0.3 per cent from 2003-04 to 2005-06. This is a change from the increases seen from the years prior to 2003-04 when increases averaged around 2 per cent per year from 1996-97. Once

again this trend is consistent with the reduced amount of water delivered and wastewater treated due to drought and restrictions, and the increased amount of treatment provided.

EPI 16(b) – Total electricity consumption by water assets expressed as a function of water supplied (KWh/ML of water supplied)

(see page 46 Sydney Water Annual Report 2006)

Performance for 2005-06

Total energy consumption by water assets increased by 2.7 per cent and the total volume of water supplied only increased by 0.4 per cent. There was a slight decrease in energy efficiency of water services by 2.26 per cent over the past year with electricity consumption per ML of water supplied going from 261.3 kWh/ML in 2004-05 to 267.22 kWh/ML in 2005-06.

Overall performance

The intensity of water operations has remained relatively constant over the past 10 years with the energy intensity of water operations staying below 270 kWh/ML over the past six years. Prior to this, the energy intensity varied from year-to-year peaking at approximately 288 kWh/ML in 1999-00.

EPI 16(c) – Total electricity consumption by sewer assets expressed as a function of sewage treated (KWh/ML of sewage treated)

(see page 46 Sydney Water Annual Report 2006)

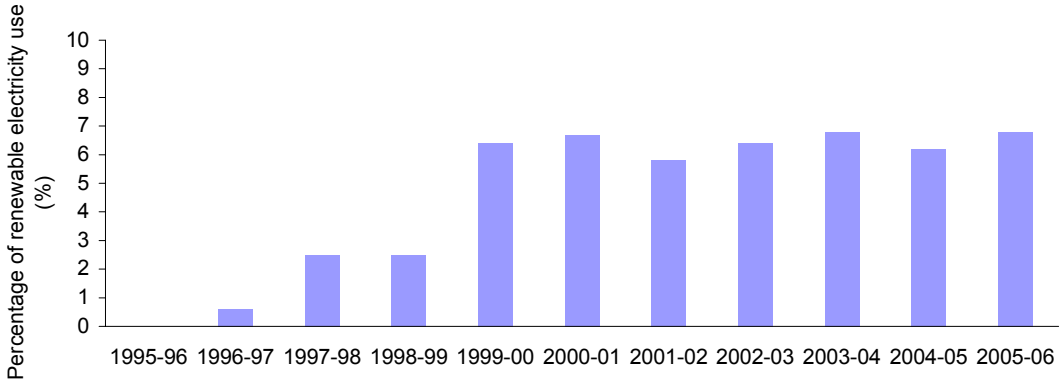
Performance for 2005-06

Overall energy consumption by wastewater assets increased by 1.1 per cent and the total volume of water treated decreased by 4.7 per cent. This increased the energy intensity of wastewater operations over last year by 6.17 per cent from 467.65 kWh/ML in 2004-05 to 496.49 kWh/ML in 2005-06. This trend reflects significant increases due to upgrades to sewage treatment plants to meet the population growth, and achieve higher standards of effluent quality and recycled water quantities.

Overall performance

Sydney Water has seen an increasing trend in the energy used per unit of wastewater treated by its wastewater operations to meet population growth, achieve the higher standards of effluent quality and recycled water requirements. Since 1999-00 Sydney Water has experienced a 56 per cent increase in the intensity of these operations from 317 kWh/ML to 496 kWh/ML.

EPI 16(d) – Electricity consumption from renewable sources or generated by Sydney Water expressed as a percentage of total electricity consumption



Performance for 2005-06

In 2005-06, 6.8 per cent of electricity consumed was from renewable energy resources. This was a result of Malabar and Cronulla cogeneration plants generating 15,807,836 kWh, the greatest amount of

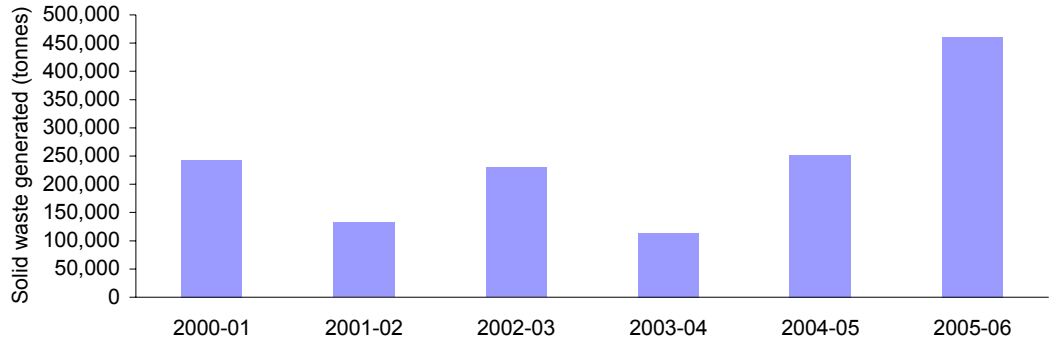
energy generated in a year from Sydney Water's operations and continued purchases of 2.5 per cent of its electricity from Green Power sources.

There was an 18 per cent increase in co-generated electricity from the previous year through more reliable operation.

Overall performance
Energy generated from our cogeneration plants has remained in the range between 12,500,000 kWh and 16,000,000 kWh since 1999-00. Since 1997, Sydney Water has purchased an annual minimum of 2.5 per cent of electricity as Green Power.

WASTE MINIMISATION

EPI 14(a) – Solid waste generated by Sydney Water



Waste category	Total waste generated (tonnes)						Per cent recycled or reused (%)					
	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Construction and demolition waste (internal)	167,376	73,358	72,050	66,420	92,018	43,280	21	54	79	79	81	89
Construction and demolition waste (external)	27,635	33,665	129,928	26,917	136,611	402,095	96	48	76	46	85	97
Office waste	176	129	143	371	483	448.62	38	48	57	52	54	57
Water, wastewater and stormwater process wastes	48,249	25,393	27,534	19,905	23,435	14,956	12	18	14	27	39	76
TOTAL	**243,436**	**132,545**	**229,655**	**113,613**	**252,547**	**460,779**	**27**	**45**	**69**	**62**	**79**	**95**

This table is based on data extrapolated from samples (Construction and demolition waste–external, office waste), and data from samples, which has not been extrapolated (Construction and demolition waste–internal, water, wastewater and stormwater process waste). Total quantities for extrapolated data should therefore be considered estimates only. Total quantities for non-extrapolated data represent the total for the sample, not the total (estimate or otherwise) for Sydney Water. All figures have been rounded to the nearest tonne or per cent

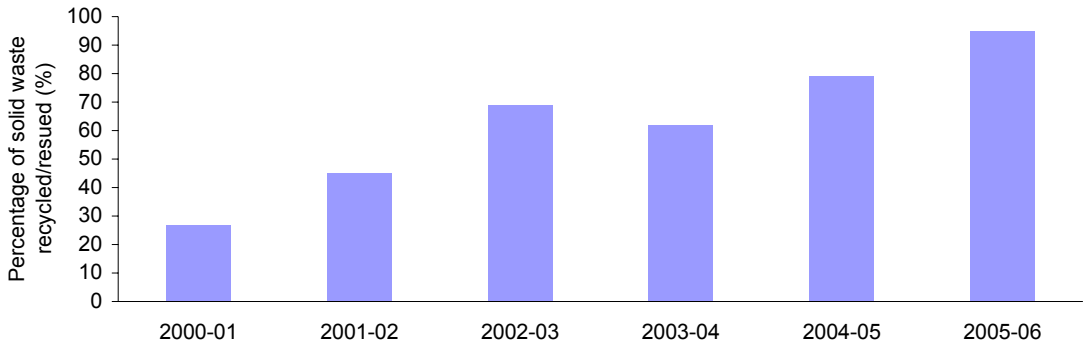
Performance for 2005-06
The amount of virgin excavated natural material (VENM) or construction and demolition waste generated by external capital works projects was higher in 2005-06 than in previous years. Thus the total amount of waste generated was higher than previous years. The table below shows the breakdown by category of total solid waste generated and the percentage recycled/reused.

Performance area indicator data and commentary

The scale, type and number of capital works and construction services projects can vary greatly from year to year and this can produce a wide variation in waste and recycling volumes between reporting periods. 2005-06 represented a significantly active year in terms of capital works projects, particularly with the Priority Sewage Program (PSP), which required laying of new mains resulting in significantly high volumes of excavation material. Ninety seven per cent (97 per cent) of this material was recycled.

Overall performance
The scale, type and number of capital works and construction services projects can vary greatly from year to year and this can produce a wide variation in waste and recycling volumes between reporting periods.

EPI 14(b) – Waste recycled or reused expressed as a percentage of solid waste generated



Performance for 2005-06
The percentage waste recycled or reused in 2005-06 has improved over the 2004-05 result. As shown by the table in EPI 14a, the increase is due to significant amounts generated and recycled from external construction activities. In addition, the new grit and screenings disposal contract for the sewage treatment plants commenced in 2005-06, and as a result, Sydney Water now recycles a greater portion of grit and screenings from STPs (wastewater process waste) than in previous years.

Overall performance
There has been a general trend of continual improvement in the percentage of waste recycled or reused since 2000-01, when comprehensive data was first collated.

BENEFICIAL USE OF BY-PRODUCTS

EPI 6(e) – Suspended solids capture rate for inland STPs and ocean STPs

	2001-02	2002-03	2003-04	2004-05	2005-06
Inland STPs	n.a.	n.a.	n.a.	n.a.	>99%
Ocean STPs	n.a.	n.a.	n.a.	n.a.	49%

n.a. = not available

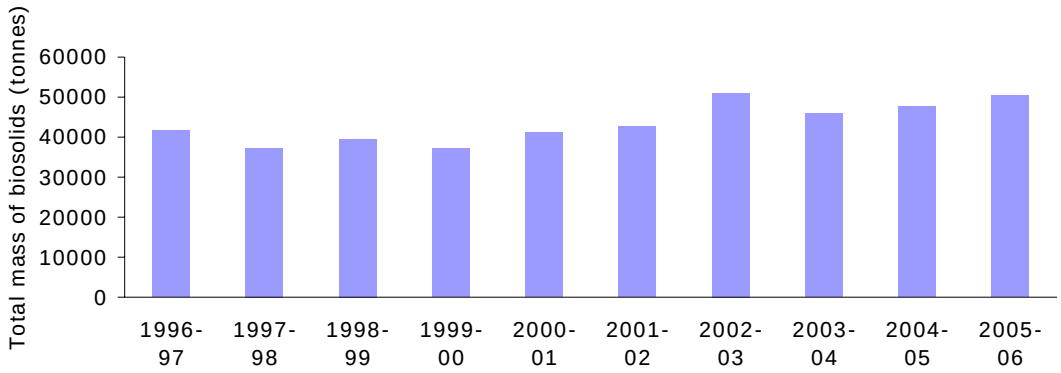
Performance for 2005-06
The suspended solids capture rate for inland sewage treatment plants is greater than 99 per cent. This represents the high level of treatment (tertiary) at each of the 17 inland sewage treatment plants. A lower suspended solids capture rate is achieved at ocean sewage treatment plants (49 per cent), as the

Performance area indicator data and commentary

three main deep water ocean outfall plants (Malabar, Bondi and North Head) are not designed for full solids removal. These three plants treat greater than 75 per cent of flows to our sewage treatment plants to a primary treatment level. There are currently no plans to improve suspended solids performance at the ocean plants as they are operating within their licence requirements and there is no evidence of any significant environmental impacts from these discharges.

Overall performance
As 2005-06 is the first year that Sydney Water has reported this indicator no comparison can be made with previous years.

EPI 11(a) – Total mass of biosolids produced by Sydney Water

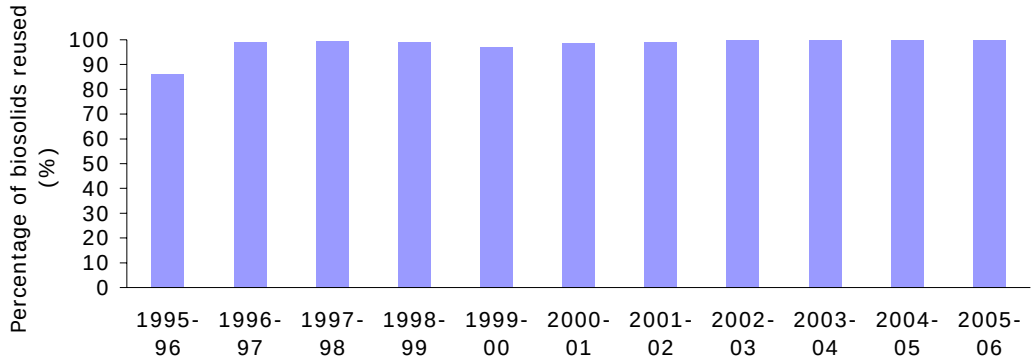


Performance for 2005-06
The total mass of biosolids produced for the year 2005-06 was 50,489 dry tonnes (191,296 wet tonnes), which is 6 per cent higher than the previous year. The increased quantities are mainly due to population increases, improved removal efficiencies and additional biosolids produced from new treatment processes at several plants where upgrades to plant equipment and processes have been carried out. The most significant increases occurred at Bellambi, North Head and Wollongong Sewage Treatment Plants.

Overall performance
The overall mass of biosolids produced has shown a general upward trend over the past ten year period, although there is variation on a year-to-year basis due to the impact of variations in inflows to the plants, and changes to plant processes and facilities. Increases in biosolids are observed as STP influent loads increase and plant upgrades provide additional treatment processes and improved removal efficiencies.

Performance area indicator data and commentary

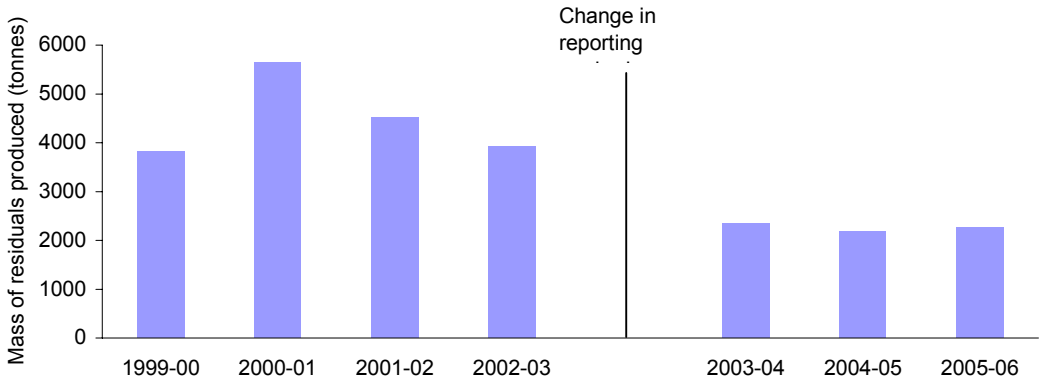
EPI 11(b) – Biosolids reused (where the reuse delivers a net environmental benefit) expressed as a percentage of total mass produced



Performance for 2005-06
In 2005-06, 100 per cent of captured biosolids have been beneficially reused. This result meets Sydney Water's biosolids beneficial use target.

Overall performance
Sydney Water aims to beneficially use 100 per cent of its captured biosolids each year. Minor amounts may require disposal to landfill if contamination renders the end product unsuitable for re-use.

EPI 12(a) – Total mass of water treatment residuals produced by Sydney Water



Performance for 2005-06
In 2005-06, Sydney Water produced 2269 tonnes of water treatment residuals. The 2005-06 result is similar to the preceding two years and reflects only slight changes in the amount of water produced by the water filtration plants.

Overall performance
The reduction in relative quantities of water treatment residuals from 2003-04 is due to changes in reporting methodology. Water treatment residual figures are now calculated using only 100 per cent solid content captured rather than the previous 40 per cent solid (60 per cent water) captured. In general the trend depends mainly on the quantity of water produced from each plant. The total mass of water treatment residuals over the last three years has remained fairly static, due the drought related restrictions.

Performance area indicator data and commentary

EPI 12(b) – Water treatment residuals reused (where the reuse delivers a net environmental benefit) expressed as a percentage of total mass produced

Water Filtration Plant	Proportion beneficially reused (%)			
	2002-03	2003-04	2004-05	2005-06
Prospect	75	123	75	102
Illawarra	29	129	63	22
Woronora	*	*	*	*
Macarthur	0	0	100	0
Warragamba	0	0	0	0
Blue Mountains	0	0	0	0
North Richmond	0	0	0	0
Orchard Hills	100	0	0	0
Nepean	0	0	0	0
Total	60	109	65	69

** Residuals from Woronora were transported to the Illawarra water filtration plant. The figure for Illawarra includes residuals from Woronora*
Note: Values that exceed 100% are due to the disposal of quantities accumulated from previous years.

Performance for 2005-06
Sydney Water reused 69 per cent of the water treatment residuals produced in 2005-06. Residuals from all water filtration plants, except Prospect, were stored onsite. Prospect WFP produced a total of 1416 dry tonnes and disposed of 1441 dry tonnes. The percentage figures quoted are the percentages of biosolids reused of the total that were produced in that year.

Overall performance
The total mass of water treatment residuals over the last three years has remained fairly static, due the drought related restrictions affecting water demand and hence volumes treated. Smaller plants do not send their residuals for reuse every year, as it is not cost effective due to the quantity produced. Therefore the percentages of water treatment residuals reused in a given year depend on when the smaller water filtration plants dispose of their residuals. Values that exceed 100 per cent are due to the disposal of quantities accumulated from previous years.

NATURAL AND CULTURAL RESOURCES

Flora and Fauna

EPI 19(a) – Total area of clearing of native vegetation

2001-02	2002-03	2003-04	2004-05	2005-06
n.a.	n.a.	n.a.	n.a.	1.46

n.a. = not available

Performance for 2005-06
1.46 hectares of native vegetation has been cleared for 2005-06. The clearing occurred in preparation for a new sewage treatment plant at Warragamba and for a road and lay-down area associated with a performance and reliability upgrade at North Head Sewage Treatment Plant.

Overall performance
There is no trend data as this is a new indicator and data was not collected prior to July 2005.

Performance area indicator data and commentary

EPI 19(b) – Total area of native vegetation gain due to rehabilitation, restoration and replanting by Sydney Water

2001-02	2002-03	2003-04	2004-05	2005-06
n.a.	n.a.	n.a.	n.a.	1.58

n.a. = not available

Performance for 2005-06
1.58 hectares of native vegetation was gained in 2005-06 from site rehabilitation works at Harris and Anzac Creeks, Lapstone Railway Cutting, SPS 806 at Glenbrook, North Head Sewage Treatment Plant and site restoration associated with the Illawarra Waste Water Strategy.

Overall performance
There is no trend data as this is a new indicator and data was not collected prior to July 2005.

Heritage

EPI 18(a) – The number of State heritage listed sites with Conservation Management Plans (CMP) prepared as a proportion of the number of State heritage listed sites without CMPs prepared

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Number of CMPs	2	2	2	2	4	6	7	25	29	36
Total number of SHR sites	59	59	59	59	59	59	59	59	59	59
% of SHR listed sites with CMPs	3%	3%	3%	3%	7%	10%	12%	42%	49%	61%

SHR = State Heritage Register

Performance for 2005-06
61 per cent or 36 of 59 Sydney Water State heritage listed sites (significant assets) have Conservation Management Plans (CMPs) or Conservation Management Strategies (CMSs). Sydney Water's ongoing commitment to preparing CMPs has achieved an increase of 12 per cent on the previous year.

Overall performance
In 1999 the NSW Government established the State Heritage Register (SHR), which lists sites of State heritage significance. Sydney Water's definitive list of State significant sites was established in 2002, when the NSW Heritage Council endorsed Sydney Water's Section 170 Heritage and Conservation Register. Presently there are 59 items of State heritage significance in Sydney Water ownership. The table above shows an increasing trend in completed CMPs over the 10-year period.

EPI 18(b) – Number of impact permits granted in relation to Aboriginal cultural heritage under the National Parks and Wildlife Act

2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
1	2	0	2	0	2

Performance for 2005-06
During 2005-06, Sydney Water applied for two Section 90 (impact) permits from the Department of Environment and Conservation to destroy Aboriginal cultural heritage objects. Both were granted. These were at the Minchinbury Reservoir site and The Gully in the Blue Mountains.

Performance area indicator data and commentary

Overall performance
Sydney Water aims to beneficially use 100% of its captured biosolids each year. Minor amounts may require disposal to landfill if contamination renders the end product unsuitable for re-use.

CONTAMINATED LAND

EPI 17 – Number of sites under the control of Sydney Water that present a significant risk of harm as defined under the Contaminated Land Management Act 1997

2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
4	4	4	2	2	3

Performance for 2005-06
Sydney Water currently has control of three Significant Risk of Harm (SROH) sites–Astrolabe Park, Alexandra Canal and the Central Workshops site at Waterloo. Botany Bay City Council has been identified by the DEC as responsible for the remediation of Astrolabe Park. The sediments in Alexandra Canal have been identified as posing SROH, and DEC has issued a 'Do Not Disturb' remediation order on the sediments on the bed of the canal. The northern part of the Central Workshops site (occupying 30 per cent of the site) has been declared as a SROH site. DEC has identified Jeffman Pty Ltd as the polluter at the Central Workshops site and has asked Jeffman to implement a remediation action plan to address the contamination issue. Sydney Water will undertake no further action on these sites at this point in time.

Overall performance
Between 2002-03 and 2003-04 the number of SROH sites decreased from 4 to 2 sites due to the contamination management work undertaken on two Sydney Water sites. In 2005-06, an additional SROH site was added, with the total now being three. This site was the northern part of the Central Workshops site at Waterloo.

3. Statutory information

Attendance at Board and committee meetings 2005-06

Director	Board of Directors Meeting Attended (Number held)	Asset Management Committee Attended (Number held)	Asset Management/ Environment Joint Committee Attended (Number held)	Audit Committee Attended (Number held)	Desalination Committee Attended (Number held)	Environment Committee Attended (Number held)	Property Committee Attended (Number held)	Public Health, Research and Development Committee Attended (Number held)	Remuneration Committee Attended (Number held)
G. Kibble	(C) 16 (16)	–	–	7 (7)	7 (8)	–	3 (3)	3 (3)	(C) 2 (2)
D. Evans	16 (16)	4 (5)	1 (2)	6 (7)	8 (8)	3 (4)	0 (3)	3 (3)	2 (2)
P. Baume*	6 (7)	–	2 (2)	–	–	–	–	(C) 1 (1)	0 (1)
J. Brown✠	16 (16)	1 (1)	–	(C) 6 (7)	(C) 8 (8)	–	–	–	–
B. Gilligan	14 (16)	5 (5)	(CC) 2 (2)	–	–	(C) 4 (4)	–	–	–
R. Kelly♦	16 (16)	5 (5)	2 (2)	7 (7)	4 (4)		(C) 3 (3)	3 (3)	2 (2)
G. McCully#	11 (11)	–	2 (2)	–	–	3 (3)	(C) 2 (2)	–	–
A. Peters	16 (16)	–	2 (2)	–	–	4 (4)	2 (3)	–	1 (2)
J. Priest	16 (16)	(C) 5 (5)	(CC) 2 (2)	5 (7)	8 (8)	–	3 (3)	–	–
G. Stewart^	5 (9)	–	–	–	–	–	–	(C) 2 (2)	–

(C) Chairman of the Board and/or Committee.
(CC) Co-Chairman
* Professor Baume retired from the Board in November 2005.
✠ Mr John Brown withdrew from the Asset Management Committee in August 2005, due to his commitments as Chair of the new Desalination Committee.
♦ Mr Kelly joined the Desalination Committee from November 2005; and was appointed as Chairman of the Property Committee from April 2006 (following Mr McCully's retirement from the Board)
\# Mr Garry McCully retired from the Board in March 2006
^ Dr Greg Stewart was appointed as a Director in December 2005; and Chairman of the Public Health, Research and Development Committee in December 2005 (following Professor Baume's retirement from the Board).

Statutory information

Executive performance and remuneration

David Evans, 53, Managing Director
By Order of the Governor made on 23 June 2004, David Evans was appointed to the office of Managing Director retrospectively from 1 April 2004. David performed against agreed criteria. The total remuneration package was $502,320 per annum. David retired in July 2006.

Denise Dawson, 50, Chief Financial Officer
Denise performed against agreed performance criteria of setting and implementing sound financial and commercial strategies, policies and practices, business planning, and information technology. The total remuneration package for the year was $297,024 per annum.

Paul Freeman, 46, General Manager, Asset Management
Paul performed against agreed performance criteria of efficient and effective management of the organisation's infrastructure systems, including water and wastewater treatment plants, water and wastewater reticulation, and meeting drinking water quality targets as set by NSW Health and environment protection licence targets as set by the Department of Environment and Conservation. The total remuneration package for the year was $275,065 per annum.

Ian Grey, 50, General Manager, People and Property
Ian performed against agreed performance criteria in the areas of people attraction, retention and development. He also performed against agreed criteria in the areas of accommodation strategy and property management. The total remuneration package for the year was $258,956 per annum.

Judi Hansen, 53, General Manager, Sustainability
Judi performed against agreed performance criteria in the areas of reviewing and developing long-term product plans for water, wastewater and stormwater and prioritising and implementation of research and development projects. The total remuneration package for the year was $275,065 per annum.

Michael Keelan, 49, General Manager, Water Services
Michael performed against agreed performance criteria of cost effective and timely civil, mechanical and electrical maintenance services. The total remuneration package for the year was $275,065 per annum.

Ron Quill, 58, General Manager, Asset Solutions
Ron performed against agreed performance criteria of managing and delivering capital works and improving business performance. The total remuneration package for the year was $275,065 per annum.

Angela Tsoukatos, 44, General Manager, Customer & Community Relations
Angela performed against agreed performance criteria of developing, planning and implementing strategies for customer services, customer resource management, corporate relations, corporate communications and marketing and business strategy and planning. The total remuneration package for the year was $275,065 per annum.

Michael Wandmaker, 49, Group General Manager, Business Services
Michael performed against agreed performance criteria of effective and efficient operation of water and wastewater treatment, water quality monitoring services and Water Services and People and Property division strategy and reform. The total remuneration package for the year was $346,800 per annum.

Statutory information
Overseas travel 2005-06

Sydney Water related travel			
Staff member	***Destination***	***Period***	***Description***
Michael Watts	Singapore	10–17 September 2005	Attend the International Desalination Association World Congress on Desalination and Water Reuse in Singapore between 11-16 September 2005 and subsequent technical tours and training course
Paul Rabaud	Singapore	10–17 September 2005	Attend the International Desalination Association World Congress on Desalination and Water Reuse in Singapore between 11-16 September 2005 and subsequent technical tours and training course
Stephen Roddy	Singapore	10–17 September 2005	Attend the International Desalination Association World Congress on Desalination and Water Reuse in Singapore between 11-16 September 2005 and subsequent technical tours and training course
Susan Trousdale	Singapore	10–17 September 2005	Attend the International Desalination Association World Congress on Desalination and Water Reuse in Singapore between 11-16 September 2005 and subsequent technical tours and training course
Malcolm Crabb	London	25 February–3 March 2006	To present underwriting information to London insurers to assist with the renewal of the 2006-07 Sydney Water Contract Works and Liability insurance programs
Claudio Battilana	London	25 February–3 March 2006	To present underwriting information to London insurers to assist with the renewal of the 2006-07 Sydney Water Contract Works and Liability insurance programs
AWT related travel			
Staff member	***Destination***	***Period***	***Description***
Leon Wittingstall	Singapore	9 July–5 September 2005	To undertake post rehabilitation flow gauging and other activities for Contract 1/7
Trevor Matthews	Singapore and Bangkok	21–28 August 2005	Attend a meeting with L & M Pipeline Services and Public Utilities Board with regard to Contract 1/7 in Singapore. Attend meetings in Bangkok in connection with corporate governance activities in relation to AWT International (Thailand) Limited

Statutory information

Expenditure on consultants 2005-06

Company	Amount $
CLAYTON UTZ Legal advice on insurance and recovery	266,314.58
UMS GROUP AUSTRALIA PTY LTD Review of strategic support within Customer Division	42,400.00
RICHARD OLIVER INTERNATIONAL PTY LTD Review of self-insured workers' compensation program	62,500.00
PACIFIC ROAD CORPORATE FINANCE PTY LTD Independent commercial review of seawater desalination project	81,888.00
CONSTRUCTION QA SERVICES PTY LTD Advice on quality management for desalination project	33,804.55
Sub total	**486,907.13**
Consultants to whom payments totalled $30,000 or less (49 engagements)	325,425.96
TOTAL EXPENDITURE ON CONSULTANTS	**812,333.09**

** Expenditure on consultants depends on operational and capital program requirements. The 2005-06 outcome reflects a slowdown in the cyclical requirements of Sydney Water, especially in relation to its capital and business reform programs*

Statutory information

IPART pricing table

The Independent Regulatory and Pricing Tribunal (IPART) Act requires an agency subject to IPART determinations or recommendations to include information in its annual report on how determinations have been implemented, whether recommendations have been implemented and if not, a statement of why recommendations have not been implemented.

As Sydney Water's core water, sewerage and stormwater drainage services and a number of its associated ancillary services are declared monopoly services under Section 4 of the Act, their prices must be set in accordance with any IPART determined methodologies and/or maximum prices. As well, Sydney Water cannot charge less without prior approval of the Treasurer.

Sydney Water's implementation of IPART's pricing determination No. 5 released in October 2005 is shown in the following table.

During 2005-06, the only recommendations that fell to Sydney Water to implement were contained in the report accompanying the determination. IPART recommended that Sydney Water provide the following social programs to its customers:

- free residential retrofits
- pensioner rebates
- extended payment arrangements
- a No Interest Loan Scheme
- a Payment Assistance Scheme.

It also recommended that:

- enhanced retrofits be provided for families of six or more people that are eligible for the base rate of the Family Tax Benefit Part A
- a rebate scheme of $40 per customer for excess water consumption above 400kL per year be offered to households that include one member who holds a Commonwealth Health Care Card, contain six or more people and have participated in the free retrofit where they are able.

Sydney Water has implemented these recommendations.

From 1 October 2005 Sydney Water has:

- supplied welfare agencies with free retrofit vouchers for distribution to low income or large households
- increased the percentage of rebate supplied to pensioners to keep their percentage increase in line with other residential customers
- continued to offer customers extended payment arrangements
- introduced No Interest Loans which customers can obtain from one of 15 agencies
- extended the Payment Assistance Scheme so there is no limit on the number of vouchers issued to tenants who pay their water usage charges
- included in the standard retrofits application process a provision for an enhanced free retrofit for large households
- created an application process for large household which provides successful applicants a $10 rebate off the water usage over 100 kL per quarterly billing cycle.

In line with IPART's determination, the prices detailed here and noted by the Board in June 2006 are based on the maximum real price paths and escalated for inflation using the method prescribed in the determination, and the CPI outcome of 2.8 per cent provided by IPART on 3 May 2006 for this purpose.

Statutory information
IPART pricing table

2005-06	Sydney Water price set – Sept quarter $	Tribunal maximum price determined – three quarters [a] $	Sydney Water price set – three quarters $
Services charges per quarter			
Residential properties			
Water			
–metered	19.40	56.84	56.84
–unmetered	82.69	281.84	281.84
Sewerage	86.66	280.59	280.59
Stormwater (drainage)	6.26	24.60	24.60
Non-residential properties			
Water			
Meter size (mm): [b]			
20	19.40	56.84	56.84
25	30.32	88.81	88.81
30	43.65	127.89	127.89
32	49.67	145.51	145.51
40	77.62	227.36	227.36
50	121.28	355.25	355.25
65	204.91	600.37	600.37
80	310.49	909.44	909.44
100	485.14	1421.00	1421.00
150	1091.58	3197.24	3197.24
200	1940.58	5683.99	5683.99
Unmetered	82.69	164.84	164.84
Sewerage [c]			
Meter size (mm):[d]			
20	86.66	280.59	280.59
25	135.41	438.43	438.43
30	194.98	631.34	631.34
32	221.86	718.32	718.32
40	346.66	1122.38	1122.38
50	541.66	1753.71	1753.71
65	915.34	2963.77	2963.77
80	1386.65	4489.50	4489.50
100	2166.65	7014.84	7014.84
150	4874.96	15,783.40	15,783.40
200	8666.60	28,059.38	28,059.38
Unmetered	86.66	280.59	280.59
Stormwater (drainage)	17.66	61.50	61.50
Recycled water			
Rouse Hill access charge–residential	6.17	18.99	18.99
Usage charges			
Residential properties			
Water			
–Tier 1	1.013	1.200	1.200
–Tier 2		1.480[e]	1.480
Non-residential properties			
Water			
–Tier 1	1.013	1.200	1.200
Sewerage (>500 kL of water used a year)	1.146	1.190	1.190
Recycled water			
Rouse Hill	0.286	0.293	0.293

Statutory information
IPART pricing table

[a] IPART's Final Determination and Sydney Water's reflective charges applied from 1 October 2005. Charges for the September quarter of 2005-06 were the same as June quarter of 2004-05.
[b] IPART's maximum determined water service charge for meter sizes not specified in its Determination is calculated using the formula: (meter size)^2 x 20 mm charge/400
[c] The prices assume the application of a Discharge Factor (df%) of 100%. The relevant df% may vary from case to case as determined by Sydney Water Corporation. A pro rata adjustment shall be made where the df% is less than 100%
[d] IPART's maximum determined sewerage charge for meter sizes not specified in its Determination is calculated by using the formula: (meter size)^2 x 20 mm charge/400 x df%
[e] Two-tier pricing came into effect for full reading periods from 1 October 2005. Before then there was one price per kL for all water consumed. To determine whether the second tier of prices should apply, water usage is assessed on a quarterly basis against the threshold of 100 kL/quarter

Note:
All prices are in nominal dollars ($ of the year)
Other charging arrangements including exempt properties, metered standpipes, Blue Mountains septic pumpout fees, trade waste and ancillary charges were set in accordance with IPART's determined maximum price

Statutory information

Research and development

Sydney Water's research and development program spans a range of projects from improving the delivery of water, wastewater and reuse/recycled water services to developing an improved understanding of water consumption. It also sees collaboration with others to assess and implement international best practice in providing drinking water and wastewater services, the environment and public health.

Projects are managed collaboratively with other research organisations. As a member of several research groups, Sydney Water's aim is to deliver a research and development portfolio that is invested across a spectrum of projects covering new services and technologies, and improved operations and processes.

Projects in 2005-06

National Biosolids Research Program: Evaluation of Benefits and Risks from Lime-Amended Biosolids–by participating in developing guidelines for the beneficial reuse of biosolids and lime-amended biosolids, Sydney Water improved its understanding of the effect of biosolids on different soil types. This will enable it to expand its biosolids reuse program. This helps to avoid areas of impoverished soils and minimising potential adverse impacts on soil environments and crop quality.

Social and Spatial Correlates of Water Use in the Sydney Region–this project highlighted the relationships between demand patterning and a variety of socio-economic and geographical characteristics of group households through rigorous assessment of Australian Bureau of Statistics, environmental, geographical and water demand data across the broader Sydney region.

Cryptosporidium and Giardia–Sydney Water developed and validated a simple process to optimise the recovery of *Cryptosporidium* and *Giardia* from water, providing greater confidence when testing water samples, as well as producing cost savings by reducing the number of repeat analyses. A more effective procedure to confirm the presence of *Cryptosporidium* in samples was also validated with an improved technique based on existing confirmation procedures to improve detection.

UV treatment and recycled water–Sydney Water successfully conducted microbiological challenge testing of medium pressure UV treatment for recycled water at the Rouse Hill Recycled Water Plant to show UV treatment as an appropriate method for producing safe recycled water. Support from NSW Health was won for using UV treatment to produce recycled water.

Drinking water quality and disinfection management–in conjunction with the Cooperative Research Centre (CRC) for Water Quality and Treatment, Sydney Water produced a series of fact sheets detailing the management implications of biofilms on drinking water quality and research in the area of disinfection management.

Sydney Water is recognised as a national leader in these areas and the resulting Fact Sheet website www.waterquality.crc.org.au/aboutdw_dwfacts.htm is attracting international attention.

Sahara technology–Sydney Water is evaluating new UK-developed sensor leak detection system and plan trials to assess leaks in large critical water mains to improve its capacity to detect leaks and ensure appropriate resources are allocated to reduce leakage.

Improved mains flushing–a new evaluation technique developed to help minimise the use of water when flushing water mains to meet demand management targets.

Statutory information
Research and development

Collaborative projects – Australian Research Council linkage grant scheme

Research collaborator	Project scope
Murdoch University	Optimisation of cell culture for *Cryptosporidium*
University of Technology, Sydney	The impact of endocrine disrupting compounds in receiving waters on aquatic biota
University of Queensland	Enhancing biological denitrification by addition of external carbon sources
University of Queensland	Understanding the biotransformation processes in a sewer system

Collaborative research arrangements

Research collaborator	Area of focus	Expenditure 2005-06 $
American Water Works Association Research Foundation	Drinking water quality and public health	183,834
Water Environment Research Foundation	Water quality research and innovative technologies for improving the water environment	94,252
Water Services Association of Australia (WSAA)	Water quality, public health and sustainable water supplies	291,507
Cooperative Research Centre for Water Quality and Treatment	Water quality and public health	225,062

Completed major research and development projects 2005-06 (cost >$99,000)

Description	Actual expenditure to 30 June 2005 $	Expenditure 2005-06 $	Final cost $
Recycled water quality requirements for industrial and commercial applications	49,728	1,000	50,728
Residential landscape assessment	137,888	0	137,888
Production of granulated biosolids and impacts of their application on turf	157,969	27,424	185,393
Removal of manganese – pilot plant study**	318,200	44,100	362,300
UV to monitor disinfection of by-products**	65,400	44,000	109,400
Characterisation and minimisation of disinfection by-products in the Prospect Water System**	190,608	0	250,000

*** Build Own Operate (BOO) operational research and development funded under BOO contract arrangements*

Continuing major research and development projects 2005-06

Description	Actual expenditure to 30 June 2005 $	Expenditure 2005-06 $	Final cost* $
Identification of substances interfering with the recovery of *Cryptosporidium* in raw waters	2,719	2,896	134,000
Nitrification in chloraminated systems	43,982	33,298	170,000
Minimising the Water Content of Biosolids	27,824	26,858	130,000
Improvement of Secondary Clarifier at Warriewood	36,624	88,438	278,000
Nitrification in Chloraminated Systems	43,982	42,382	213,000
Evaluation of Sulphalock	1,000	7,547	111,000

** Estimated costs based on expected expenditure*

Statutory information

Social program funding 2005-06

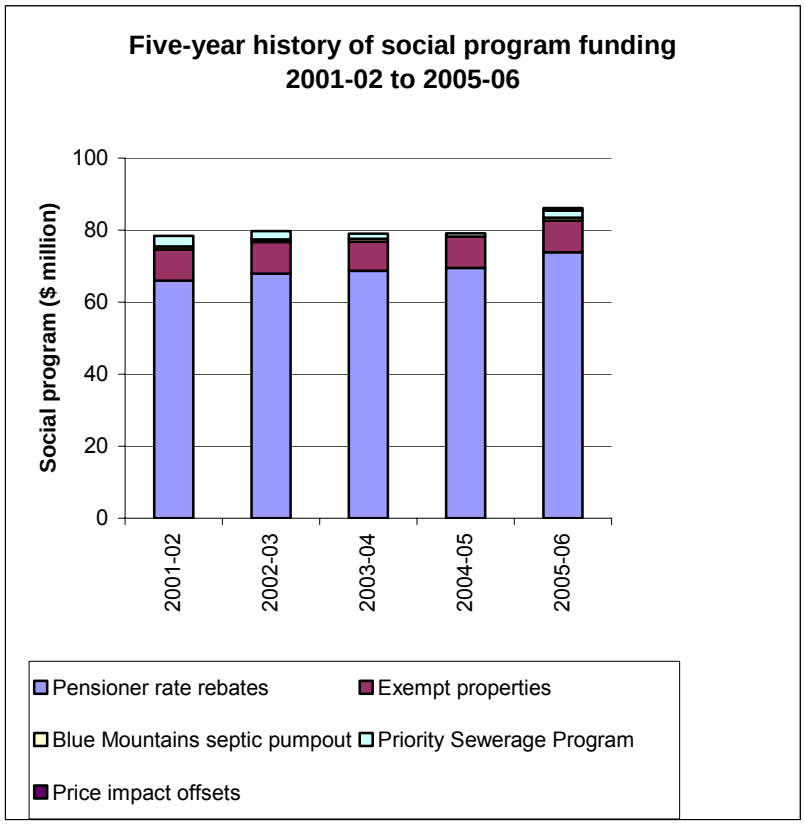
Each year, Sydney Water carries out a number of non-commercial social activities at the direction of the NSW Government, for which it receives reimbursement from the State Budget.

In 2005-06 these activities included:

- $73.9 million for pensioner rebates
- $8.8 million for property exemptions
- $1.9 million for priority sewerage
- $0.8 million for Blue Mountains septic pumpout subsidy
- $0.7 million for price impact offsets.

Social program funding for past five years

Social program	2001-02 $M	2002-03 $M	2003-04 $M	2004-05 $M	2005-06 $M
Pensioner rate rebates	66.0	67.9	68.7	69.5	73.9
Exempt properties	8.7	8.8	8.1	8.7	8.8
Blue Mountains septic pumpout subsidy	0.8	0.7	0.8	0.9	0.8
Priority Sewerage Program	2.9	2.3	1.4	0	1.9
Price impact offsets	n.a.	n.a.	n.a.	n.a.	0.7
TOTAL	**78.3**	**79.7**	**79.1**	**79.1**	**86.1**



Statutory information

Funds granted to non-government community organisations 2005-06

Contract	Company name	Program	Cheque amount $ (excl. GST)
Corporate partnerships			
Bell Shakespeare			
	Bell Shakespeare Company	NSW Education sponsor	75,000.00
Sculpture by the Sea			
	Sculpture by the Sea Incorporated	Founding and Co-Principal sponsor	40,000.00
Sydney Festival			
	The Sydney Festival Limited	Distinguished supporter of Sydney Festival 2006	50,000.00
Keep Australia Beautiful–Clean Beach Challenge			
	Keep Australia Beautiful (NSW)	Major Sponsor of Sydney Festival 2006	20,700.00
NCOSS 70th Anniversary Dinner			
	Council of Social Service of NSW	Event sponsorship	5,000.00
Sydney Theatre Company			
	NSW Cultural Management Ltd	Artwork partner of the Sydney Theatre Company	40,000.00
AWA Heads of Water Conference (26 August 2005)			
	Australian Water Association	Sponsorship of the Heads of Water Conference	7,000.00
Community Partnerships			
Songlines			
	Songlines Festival Incorporated	Principal sponsor	60,000.00
South Maroubra Surf Life Saving Club			
	South Maroubra SLSC	Major sponsor	10,000.00

Statutory information

Funds granted to non-government community organisations 2005-06

Katoomba Winter Magic Festival			
	Katoomba Winter Magic Festival Inc	Major sponsor	5,000.00
2006 Heritage Festival			
	National Trust of Australia	Sponsor of the 2006 Heritage Festival	10,000.00
Illawarra Surf Club Premiership Series			
	Surf Life Saving Illawarra	Sydney Water Surf Club Premiership series	20,000.00
Wave FM			
	Wollongong Broadcasters Pty Ltd	Sydney Water beach and surf report and annual event	12,000.00
Illawarra Academy of Sport			
	Illawarra Academy of Sport	Sponsor of Sydney Water swim squad	6,000.00
Financial Counsellors Association of NSW			
	Financial Counsellors' Association of NSW	Sponsorship of annual conference	727.27
Festival of Kurnell			
	Kurnell Progress & Precinct Resident's Association Inc	Major sponsor	9,090.91
Philanthropic Commitments			
Variety Club–Bash Car H_20			
	Variety Children's Charity	H_2O Car for the Variety Club Bash	10,000.00
Westmead Children's Hospital			
	The Children's Hospital at Westmead	Purchase of brain monitor for newborns	25,000.00
	The Children's Hospital at Westmead	Purchase of equipment	10,000.00
CAF Australia–Give As You Earn (GAYE) dollars–amount matched			
	June 2005		3,588.40
	July 2005		3,542.40
	August 2005		4,645.10
	September 2005		3,397.40
	October 2005		3,422.40

Statutory information

Funds granted to non-government community organisations 2005-06

CAF Australia–Give As You Earn (GAYE) dollars matched (cont.)			
	November 2005		3,463.40
	December 2005		3,463.40
	January 2006		4,568.10
	February 2006		3,497.40
	March 2006		3,502.40
	April 2006		3,562.40
	May 2006		3,591.40
Cancer Council			
	Cancer Council of NSW	Matching staff donations as part of Australia's Biggest Morning Tea	7,169.65
Joan Sutherland Performing Arts Centre			
	Joan Sutherland Performing Arts Centre	Donation	10,000.00
War Widows' Guild of Australia NSW Ltd			
	War Widows' Guild of Australia NSW Ltd	Donation	3,465.91
TOTAL			**$480,397.94**

Statutory information

Freedom of Information (FOI) statistics 2005-06

FOI REQUESTS	*Personal*	*Other*	*Total*
New (including transferred)	3	40	43
Brought forward (incomplete)	–	6	6
Total to process	**3**	**46**	**49**
Complete	**3**	**45**	**48**
Transferred out	–	–	–
Withdrawn	–	11	11
Total processed	**3**	**34**	**37**
Carried forward (incomplete)	–	1	1

RESULT OF FOI REQUEST	*Personal*	*Other*	*Total*
Granted in full	1	9	10
Granted in part	2	11	13
Refused	–	14	14
Deferred	–	–	–
Completed	**3**	**34**	**37**

NUMBER OF REQUESTS REQUIRING FORMAL CONSULTATIONS	*Total*
5	5

BASIS OF REFUSING OR RESTRICTING ACCESS	*Personal*	*Other*
S.19 Application incomplete, wrongly directed	–	–
S.22 Deposit not paid	–	–
S.25 (1) (a1) unreasonable diversion of resources	–	2
S.25 (1)(a) exempt	2	17
S.25 (1)(b)(b1)(c)(d) otherwise available	–	2
S.28 (1)(b) documents not held	–	4
S.24 (2) deemed refused, over 21 days	–	–
S.31 (4) releases to medical practitioner	–	–
Total	**2**	**25**

COSTS AND FEES OF REQUESTS PROCESSED *(including all processed and withdrawn FOI requests)*	*All completed requests* **$**
FOI fees received	1,545
Assessed costs	170
Total	**1,715**

Statutory information

Freedom of Information (FOI) statistics 2005-06

TYPE OF DISCOUNT ALLOWED ON FEES CHARGED	*Personal*	*Other*
Public interest	–	–
Financial hardship – Pensioner/child	–	1
Financial hardship – Non-profit organisation	–	–
Total	**–**	**1**
Significant correction of records	**–**	**–**

DAYS TO PROCESS *(elapsed time)*	*Personal*	*Other*
0-21 days	1	11
22-35 days	1	11
Over 35 days	1	12
Total	**3**	**34**

PROCESSING HOURS	*Personal*	*Other*
0-10 hours	1	25
11-20 hours	2	8
21-40 hours	–	1
Over 40 hours	–	–
Total	**3**	**34**

GROUNDS ON WHICH INTERNAL REVIEW REQUESTED	*Personal*		*Other*	
IR Grounds	***Upheld***	***Varied***	***Upheld***	***Varied***
ACCESS REFUSED	–	–	–	3
Deferred	–	–	–	–
Exempt matter	–	–	–	1
Unreasonable charges	–	–	–	–
Charge unreasonably incurred	–	–	–	–
Amendment refused	–	–	–	–
Total	**–**	**–**	**–**	**4**

In 2005-06, Sydney Water received 43 new applications under the Freedom of Information Act 1989, compared to 48 in 2004-05 and 59 in 2003-04. No Ministerial Certificates were issued over this period. Sydney Water received four applications for internal review. In each case the original determination was varied.

During this period, the Ombudsman did not conduct any formal reviews of FOI determinations made by Sydney Water. There have been no appeals to the Administrative Decisions Tribunal in the last 15 years. FOI contact details at Sydney Water are:

Freedom of Information
Level 23, Sydney Water
PO A53
SYDNEY SOUTH NSW 1232
(02) 9350 6083

Statutory information

Ethnic Affairs Priorities Statement 2005-06

In adhering to the principles of multiculturalism, Sydney Water recognises that customers and key stakeholders are of diverse, cultural and linguistic backgrounds (DCALB) and demonstrates this through a range of activities it undertakes through its corporate, business and communications plans. This Priority Statement is presented in the form of a record of initiatives and achievements in 2006, and a forward statement of strategies for 2007.

Strategy	Key initiatives	Outcomes/performance indicators	Timeframe
Provide equitable and accessible services	As a condition of its Operating Licence, Sydney Water operates a Corporate Customer Council. The Council includes a representative from the Ethnic Communities Council.		Ongoing
	Provision of an interpreter service for people of non-English speaking backgrounds.	Contact Centre receives on average 50 calls a month	Ongoing
	The Community Language Allowance Scheme (CLAS) is provided to staff that use a language other than English in customer service work. The service is provided by phone, email and face-to-face contact to internal and external customers. Currently 43 staff provide the service covering 22 different languages.	Service was used 351 times in 2005-06	Ongoing
	The website contains quarterly drinking water quality reports in 10 languages. Information on water saving tips in the home and the garden and restrictions advertisements are available in 12 languages.		Ongoing
	Social Policy engages specialised DCALB community agencies to promote and deliver special assistance strategies. These programs provide low-income customers with financial and water saving assistance, promoting affordable and ongoing access to services.		Ongoing
Develop and implement strategies specifically targeting DCALB customers based on demographic	In any media campaign, 5 per cent of the total media spend is placed in ethnic electronic media and 10 per cent in ethnic print media.	Total of $59,000 was spent on DCALB media placement in 2005-06	Ongoing

information, needs analysis and market research	Partial funding of the Ethnic Communities Council of NSW's Ethnic Communities Sustainable Living Project. Eighteen bilingual educators regularly conduct water conservation education workshops with community groups across Sydney in eight languages.	48 water conservation education workshops were held in 2005-06	Ongoing
	Participation in development of the NSW Government's Water For Life for Ethnic Communities Home Water Action Program. The program aims to train 18 Bilingual Educators, providing them with resources to communicate water saving messages to the eight largest DCALB community groups in Sydney.	Increase in number of DCALB customers participating in the demand management programs	Program to be launched in 2007
	Support for the Ethnic Communities Council of NSW's Saving Water in Asian Restaurants Project to facilitate the introduction of waterless wok stoves across Sydney Water's area of operations.	Replacement of 40 conventional wok stoves, resulting in approximately 72,000 kL of water savings per year.	2005-06 to 2007-08

Statutory information

Ethnic Affairs Priorities Statement 2005-06

Statutory information

Waste Reduction and Purchasing Policy (WRAPP) Statement 2005-06

In accordance with the Annual Reports (Statutory Bodies) Regulation 2000, this statement outlines Sydney Water's implementation of the NSW Government's WRAPP in terms of measures taken and progress on reducing waste, recovering resources and using recycled materials.

Resource	Waste reduction measures	Resource recovery	Use of recycled material
Paper	All printers are ordered with duplex units as standard. Approximately 95 per cent of printers, including colour printers, now have duplexing units. Over the next six to 12 months this is expected to move to 100 per cent. Staff continue to be encouraged to use double-sided printing. Continue to provide printer friendly pages on the ConnectNet intranet which use less paper in printing. In 2005-06 most payslips began to be issued electronically, saving paper, envelopes and toner.	A fifth audit in July 2006 revealed that over 84 per cent of office paper from Head Office was recycled, surpassing the target of 80 per cent set in 2000. A total of 124.35 tonnes of waste paper was recycled. All sites have been provided with paper recycling facilities. Office staff have been given desk side waste paper recycling boxes. Additional cardboard recycling facilities have been provided where necessary. Surveys indicate that 99 per cent of office staff are aware of paper recycling.	All publications produced for public distribution use paper with recycled content. During 2005-06 stationery purchases of the following items contained recycled content: • A4 paper = 54 per cent • A3 paper = 13 per cent • Envelopes = 95 per cent • Post-It Notes = 92 per cent • A4 pads and notebooks = 88 per cent
Toner	Where possible, unused toner cartridges for which there is no longer suitable equipment are donated. Continued to provide printer friendly pages on the ConnectNet intranet which use less toner in printing.	2.33 tonnes of used toner cartridges and other used imaging consumables was recycled. This is estimated to be around 90 per cent of used imaging waste.	5.53 per cent of toner cartridges purchased during 2005-06 contained recycled content.

Statutory information

Waste Reduction and Purchasing Policy (WRAPP) Statement 2005-06

Landscaping materials	Contracts stipulate that green waste from grounds maintenance must be removed for recycling.	The target of 70 per cent of green waste from grounds maintenance to be recycled or reused was surpassed with a recycling or reuse rate of more than 96 per cent or 2946 tonnes of vegetation waste. 2269 tonnes of residuals from water filtration plants (WFPs) was recycled or reused. 100 per cent of residuals from these plants was either beneficially reused or stored for future reuse. Under a service agreement between Better Grow Pty Ltd and Australian Water Services, BOO Operator of Prospect WFP, residuals from Prospect WFP are used by Better Grow as a bulking agent in the production of compost products. SoilCo Ltd uses residuals from Illawarra and Woronora WFPs to produce landscaping materials. 61.9 per cent, or 3186.93 tonnes of wastewater residuals was recycled or reused. This includes 30.47 per cent or 859.47 tonnes of grit and screenings collected at STPs which is now processed under contract into high value compost and beneficially used in horticulture, landscaping and domestic applications.	45 per cent, or 1866.2 tonnes of landscaping materials containing recycled content was purchased for internal operational use.

Landscaping materials (cont.)		82.2 per cent, or 5935 tonnes of stormwater sediment was recycled or reused. Negotiations regarding the proposed use of stormwater silt in a golf course development were entered into.	
Construction materials	Low waste methods of pipe renewal, e.g. pipe bursting, are preferred. Estimated spoil saved by pipe bursting instead of open trenching for 2005-06 was 2500 tonnes, while spoil saved by boring was 1000 tonnes. Waste minimisation requirements are incorporated into external capital works contracts. Waste minimisation is one of a number of environmental factors that is to be considered when preparing Construction Environmental Management Plans (CEMPs) that are written into all Capital Works projects under our Environmental Management System (EMS). As of May 2004, both the General Specifications AS2124 contract shell and GC21 contract outline the requirements for Environmental Risk Assessment (Clause GS–03.4) and the preparation of a CEMP (Clause GS–03.5) prior to construction. Guidelines on preparation of CEMPs, which advocate the use of materials with, recycled content and minimisation and reuse of waste in construction are provided. Further guidelines for the preparation of CEMPs are provided in EMS Operational Control Procedures.	89 per cent or 38,733 tonnes of internal construction and demolition waste was recycled or reused, with the balance of 4547 tonnes sent to landfill. Almost 97 per cent or 389,609 tonnes of external construction demolition waste was recycled or reused, with the balance of 12,486 tonnes set to landfill. The bulk spoil contract requires contractors to separate spoil into recycle/reuse/dispose to landfill and to report these quantities as part of monthly invoicing.	83 per cent of sand purchased for pipe embedment for internal use contained recycled content. 77 per cent, or 32,972 tonnes of construction materials purchased for internal construction contained recycled content. 23 per cent of construction materials purchased for external construction contained recycled content. The possibility of using a sand-like product based on recycled glass as an alternative to the use of virgin sand for pipe embedment compaction sand was investigated. The Department of Environment and Conservation (DEC) agreed to support this project and have provided laboratory services to facilitate the environmental and engineering assessment.

Construction materials (cont..)	Environmental KPIs are incorporated into select major external capital works contracts. The Workplace Accommodation Team have procedures in place to minimise construction and demolition waste		
Office waste	To avoid the generation of office waste, waste minimisation considerations are included in a variation to the existing contract for cleaning services, the tender for facilities management and maintenance services, and the desktop computer and IT services tender.	The disposals process was revamped and a simple 10-step disposal guidelines document produced with the aim of making it simple for staff to follow. The revamped process puts more emphasis on reuse and recycling, including donating working items of low commercial value to non-profit groups. The storage of Styrofoam for recycling was reorganised to encourage source separation and improve recycling rates.	The Workplace Accommodation Team has established a central furniture store that is now accessible to all staff. The store is managed by the Team and enables the recycling of excess furniture. So far, savings of approx $73,250 have been achieved.

Statutory information

Waste Reduction and Purchasing Policy (WRAPP) Statement 2005-06

Statutory information

Heritage and Conservation Register 2005-06

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Alexandra Canal	Y	Y			✓	No major works undertaken this financial year
Allawah Reservoir (WS 0001)			✓			No major works undertaken this financial year
Ashfield Reservoir (Elevated) (WS 0003)	Y	Y	✓			No major works undertaken this financial year
Balmain Reservoir (Covered) (WS 0006)				✓		No major works undertaken this financial year
Balmain Reservoir Valve House			✓			Previous years conservation work won National Trust of Australia (NSW) commendation
Bankstown Reservoir (Elevated) (WS 0007)	Y	Y	✓			No major works undertaken this financial year
Bantry Bay Reservoir (WS 0008)				✓		No major works undertaken this financial year
Bantry Bay Water Pumping Station (WPS 122)				✓		No major works undertaken this financial year
Beattie St Stormwater Channel No.15				✓		No major works undertaken this financial year
Beecroft Reservoir (WS 0009)				✓		No major works undertaken this financial year
Bennelong Stormwater Channel No.29					✓	No major works undertaken this financial year
Berkeley Reservoir (WS 0011)					✓	No major works undertaken this financial year
Berkeley Reservoir (WS 0012)					✓	No major works undertaken this financial year
Berowra Reservoir (Elevated) (WS 0013)				✓		No major works undertaken this financial year
Birds Gully Stormwater Channel No.10					✓	SQID (Stormwater Quality Improvement Device) installed this financial year
Blackwattle Bay Stormwater Channel No.17					✓	No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Bombo Headland Quarry Geological Site	Y		✓			No major works undertaken this financial year
Bondi Ocean Outfall Sewer (BOOS)	Y			✓		No major works undertaken this financial year
Bondi Sewage Treatment Plant			✓			Upgrade works continue–include new tunnel and ventilation
Botany Wetlands	Y	Y	✓			Environmental restoration works continue
Bradfield Carrier						Condition unknown; access for inspection very difficult with significant OHS&R issues
Bunnerong Stormwater Channel Amplification				✓		No major works undertaken this financial year
Bunnerong Stormwater Channel No.11				✓		No major works undertaken this financial year
Burns Bay Sewage Aqueduct				✓		No major works undertaken this financial year
Busby's Bore	Y			✓		No major works undertaken this financial year; inspection not possible
Castle Hill Reservoir (WS 0021)				✓		No major works undertaken this financial year
Centennial Park Reservoir No.1 (Covered) (WS 0022)	Y		✓			No major works undertaken this financial year
Chatswood–Willoughby Stormwater Channel No.26				✓		No major works undertaken this financial year
Chatswood Pumping Station (former)			✓			Conservation works completed this year
Chatswood Reservoir No.1 (WS 0024) and site	Y		✓			No major works undertaken this financial year
Chatswood Reservoir No.2 (WS 0025)	Y		✓			No major works undertaken this financial year
City Tunnel			✓			No major works undertaken this financial year
Clifford Love Bridge				✓		No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Coledale Heights Reservoir (WS 0028)					✓	No major works undertaken this financial year
Coledale Reservoir (Break Pressure Tank) (WS 0029)				✓		No major works undertaken this financial year
Collaroy Reservoir (Elevated) (WS 0030)			✓			No major works undertaken this financial year
Como Rail Bridge	Y				✓	Upgrade of Como Bridge planned in 2007-08
Coogee–Randwick Outfall						Condition unknown. No major works undertaken this financial year
Cooks River Sewage Aqueduct	Y	Y		✓		No major works undertaken this financial year
Corrimal Reservoir No.1 (WS 0033)					✓	No other works undertaken this financial year
Cronulla Sewage Treatment Plant				✓		No major works undertaken this financial year
Crown Street Pumping Station (WP0001)		Y	✓			Upgrade planned for 2006-07
Crown Street Reservoir (Covered) (WS 0034)	Y	Y	✓			Timber columns replaced; further work to upgrade internal ladders and platforms planned in winter of 2006-07
Darling Mills Creek Sewage Aqueduct			✓			No major works undertaken this financial year
Diamond Bay Outfalls (No.1 & No.2)			✓			No major works undertaken this financial year
Dobroyd Stormwater Channel No.53				✓		No major works undertaken this financial year
Double Bay Sewage Ejector Station No.1 (decommissioned)	Y					Condition unknown; no major works undertaken this financial year
Dowling Street Water Pumping Station (WP0090)			✓			No major works undertaken this financial year
Drummoyne Reservoir (WS0038)	Y	Y		✓		No major works undertaken this financial year
Dural Reservoir (Elevated) (WS 0039)				✓		No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Dural South Reservoir (WS 0112)				✓		No major works undertaken this financial year
East Hills Reservoir (Elevated) (WS 0042)			✓			No major works undertaken this financial year
Gore Creek Sewage Aqueduct				✓		No major works undertaken this financial year
Hawthorne Canal Stormwater Channel (& Leichhardt Branch)				✓		No major works undertaken this financial year
Hay Street Stormwater channel						Temporary structural supports erected inside stone section of channel; minor re-lining completed; major repairs planned for 2006-07
Hermitage Reservoir No.1 (WS 0050) and site			✓			No major works undertaken this financial year
Hermitage Reservoir No.2 (WS 0051)			✓			No major works undertaken this financial year
Hornsby Reservoir (WS 0055)			✓			No major works undertaken this financial year
Hoxton Park Water Pumping Station			✓			No major works undertaken this financial year
Jamberoo Reservoir (WS 0230)					✓	No major works undertaken this financial year
Jamieson Reservoir (WS0390)				✓		No major works undertaken this financial year
Johnstons Creek Sewage Aqueduct	Y		✓			No major works undertaken this financial year
Johnstons Creek Stormwater Channel No.55				✓		SQID (Stormwater Quality Improvement Device) installed this financial year
Kenny Hill Reservoir (WS 0058)					✓	No major works undertaken this financial year
Kiama Reservoir (WS 0231)	Y			✓		No major works undertaken this financial year
Kiama Reservoir (WS 0232)	Y			✓		No major works undertaken this financial year
Killara Reservoir (Covered) (WS 0060)			✓			No major works undertaken this financial year
Lakemba Water Pumping Station (WP0003)			✓			No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Lane Cove Syphon			✓			No major works undertaken this financial year
Lewisham Sewage Aqueduct	Y	Y	✓			No major works undertaken this financial year
Liverpool (Mount Misery) (WS 0061)			✓			No major works undertaken this financial year
Liverpool Sewage Treatment Plant			✓			No major works undertaken this financial year
Lugarno Water Pumping Station (WP0032)			✓			No major works undertaken this financial year
Mangerton Reservoir (WS 0063)			✓			No major works undertaken this financial year
Manly Dam–Wall	Y		✓			No major works undertaken this financial year
Manly Outfall			✓			No major works undertaken this financial year
Manly Reservoir (WS 0064)			✓			No major works undertaken this financial year
Marayong Reservoir (WS 0066)				✓		No major works undertaken this financial year
Megarrity's Creek Water Pumping Station (WS 0135)				✓		No major works undertaken this financial year
Middle Harbour Syphon NSOOS	Y		✓			No major works undertaken this financial year
Mobbs Hill Reservoir (WS 0068)				✓		No major works undertaken this financial year
Mobbs Hill Reservoir (WS 0069)				✓		No major works undertaken this financial year
Mosman Bay Sewage Aqueduct	Y		✓			No major works undertaken this financial year
Mount Dorothy Reservoir (WS 0073)	Y		✓			No major works undertaken this financial year
Mount Keira Reservoir (WS 0075)			✓			No major works undertaken this financial year
Mount Kembla Reservoir (WS 0076)				✓		No major works undertaken this financial year
Mount Nebo Lower Reservoir (WS 0077)				✓		Upgrade work planned for 2006-07

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Newport Reservoir (WS 0079)				✓		No major works undertaken this financial year
Northern Suburbs Ocean Outfall Sewer (NSOOS)				✓		No major works undertaken this financial year
Orchard Hills Reservoir (WS 0083)				✓		No major works undertaken this financial year
Penshurst Reservoir (Elevated) (WS 0087) and site	Y	Y	✓			Renewal of pipe work Stage 2 completed; Stage 3 work deferred
Penshurst Reservoir (Elevated) (WS 0088)	Y	Y	✓			Renewal of pipe work Stage 2 completed; Stage 3 work deferred
Petersham Reservoir (Covered) (WS 0089)	Y		✓			Conservation works to site drainage valve houses; former Water Service Operator's cottage completed
Petersham Reservoir (Elevated) (WS 0204)			✓			No major works undertaken this financial year
Picton Reservoir (WS 0147)				✓		No major works undertaken this financial year
Pipehead to Potts Hill Pipelines				✓		No major works undertaken this financial year
Pipehead, Water supply canal and associated works	Y	Y		✓		No major works undertaken this financial year; condition of screening deck cranes assessed
Pitt Town Water Pumping Station (WP0064)					✓	No major works undertaken this financial year
Potts Hill–Crown St 48"/42" Mains				✓		No major works undertaken this financial year
Potts Hill Booster Station (WP0004)			✓			No major works undertaken this financial year
Potts Hill Pumping Station (remains)				✓		No major works undertaken this financial year
Potts Hill Reservoirs Site	Y	Y	✓			No major works undertaken this financial year
Pressure Tunnel and Shafts	Y			✓		No major works undertaken this financial year; stabilisation works to Shaft 5 begun but project halted due to subsidence problems; monitoring ongoing

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Prospect Hill Reservoir (Elevated) (WS 0095)				✓		No major works undertaken this financial year
Prospect Reservoir (Operational land)	Y		✓			Raw water pumping station progressing
Prospect–Thornleigh Pumping Station (WPS 138)				✓		No major works undertaken this financial year
Pymble Reservoir No.1 (Covered) (WS 0097)	Y		✓			New perimeter fencing
Pymble Reservoir No.2 (Covered) (WS 0098)	Y		✓			New perimeter fencing
Quakers Hat Bay Aqueduct (Air induct house)			✓			No major works undertaken this financial year
Randwick Reservoir (WS 0101)			✓			Renewal of valve and pipes completed
Randwick South Reservoir (Elevated) (WS 0102)			✓			No major works undertaken this financial year
Rushcutters Bay Stormwater Channel No.84				✓		SQID (Stormwater Quality Improvement Device) installed this financial year
Ryde Pumping Station and site	Y	Y		✓		Asbestos removal and re-roofing of boiler house progressing; upgrade works continuing
Salt Pan Creek Sewage Aqueduct				✓		No major works undertaken this financial year
Scarborough Reservoir (WS 0108)				✓		No major works undertaken this financial year
Scotts Creek Sewage Aqueduct			✓			No major works undertaken this financial year
Sewage Pumping Station No.1 (SP0001)	Y			✓		No major works undertaken this financial year
Sewage Pumping Station No.10 (SP0010)			✓			No major works undertaken this financial year
Sewage Pumping Station No.11 (SP0011)			✓			No major works undertaken this financial year
Sewage Pumping Station No.12 (SP0012)				✓		No major works undertaken this financial year
Sewage Pumping Station No.13 (SP0013)			✓			Tile roof repaired. Landscape works planned for 2006-07

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Sewage Pumping Station No.14 (SP0014)			✓			No major works undertaken this financial year
Sewage Pumping Station No.17 (SP0017)				✓		No major works undertaken this financial year
Sewage Pumping Station No.18 (SP0018)	Y		✓			No major works undertaken this financial year
Sewage Pumping Station No.2 (SP0002)				✓		No major works undertaken this financial year
Sewage Pumping Station No.22 (SP0022)			✓			No major works undertaken this financial year
Sewage Pumping Station No.24 (SP0024)			✓			IICATS upgrade completed 2005-06 under SewerFix
Sewage Pumping Station No.25 (SP0025)			✓			IICATS upgrade completed 2005-06 under SewerFix
Sewage Pumping Station No.27 (SP0027)	Y		✓			No major works undertaken this financial year
Sewage Pumping Station No.271 (SP0271)	Y	Y	✓			Boiler house roof repaired, termite damaged timbers restored, former coal store stabilised, new mesh gates and screens installed and site drainage repaired; IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.3 (SP0003)	Y	Y	✓			No major works undertaken this financial year
Sewage Pumping Station No.30 (SP0030)				✓		No major works undertaken this financial year
Sewage Pumping Station No.31 (SP0031)				✓		IICATS upgrade completed under SewerFix
Sewage Pumping Station No.33 (SP0033)			✓			No major works undertaken this financial year
Sewage Pumping Station No.36 (SP0036)			✓			IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.37 (SP0037)			✓			No major works undertaken this financial year
Sewage Pumping Station No.38 (SP0038)	Y	Y	✓			Re-roofing in welsh slate, painting and other conservation works progressing
Sewage Pumping Station No.39 (SP0039)				✓		No major works undertaken this financial year
Sewage Pumping Station No.4 (SP0004)				✓		IICATS upgrade completed 2005-06 program

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Sewage Pumping Station No.41 (SP0041)				✓		No major works undertaken this financial year
Sewage Pumping Station No.42 (SP0042)				✓		No major works undertaken this financial year
Sewage Pumping Station No.47 (SP0047)			✓			No major works undertaken this financial year
Sewage Pumping Station No.5 (SP0005)			✓			IICATS upgrade completed 2005/06 program
Sewage Pumping Station No.50 (SP0050)			✓			No major works undertaken this financial year
Sewage Pumping Station No.53 (SP0053)				✓		No major works undertaken this financial year
Sewage Pumping Station No.54 (SP0054)			✓			IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.56 (SP0056)			✓			IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.57 (SP0057)			✓			IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.58 (SP0058)				✓		No major works undertaken this financial year
Sewage Pumping Station No.6 (SP0006)			✓			IICATS upgrade completed 2005/06 program
Sewage Pumping Station No.60 (SP0060)				✓		No major works undertaken this financial year
Sewage Pumping Station No.61 (SP0061)				✓		IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.62 (SP0062)				✓		No major works undertaken this financial year
Sewage Pumping Station No.65 (SP0065)				✓		No major works undertaken this financial year
Sewage Pumping Station No.67 (SP0067)	Y		✓			No major works undertaken this financial year
Sewage Pumping Station No.68 (SP0068)				✓		IICATS upgrade completed as part of SewerFix
Sewage Pumping Station No.69 (SP0069)				✓		No major works undertaken this financial year
Sewage Pumping Station No.7 (SP0007)			✓			No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Sewage Pumping Station No.70 (SP0070)				✓		No major works undertaken this financial year
Sewage Pumping Station No.72 (SP0072)				✓		No major works undertaken this financial year
Sewage Pumping Station No.75 (SP0075)				✓		IICATS upgrade completed as part of SewerFix
Sewage Syphon (Manly Lagoon)				✓		No major works undertaken this financial year
Sewer Vent, Rozelle					✓	No major works undertaken this financial year
Sewer Vent, Balmain			✓			No major works undertaken this financial year
Sewer Vent, Glebe				✓		Minor works to prevent odour leak
Sewer Vent, Strathfield				✓		No major works undertaken this financial year
Sewer Vent, Bellevue Hill				✓		No major works undertaken this financial year
Sewer Vent, North Sydney	Y			✓		No major works undertaken this financial year
Sewer Vent, Arncliffe				✓		No major works undertaken this financial year
Sewer Vent, Lewisham	Y	Y		✓		No major works undertaken this financial year
Sewer Vent, Burwood	Y	Y		✓		No major works undertaken this financial year
Sewer Vent, Croydon	Y	Y		✓		No major works undertaken this financial year
Sewer Vent, Burwood	Y	Y		✓		No major works undertaken this financial year
Sewer Vent, Bexley					✓	No major works undertaken this financial year
Sewer Vent, Bexley				✓		No major works undertaken this financial year
Sewer Vent, Queenscliff						Cannot determine
Sewer Vent, Botany				✓		No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Sewer Vent (Ben Buckler)	Y		✓			No major works undertaken this financial year
Sewer Vent (The Obelisk)	Y		✓			No major works undertaken this financial year
Sewer Vent and Cottage, Stanmore	Y	Y	✓			No major works undertaken this financial year
Sewer Vent and Cottages, Marrickville	Y	Y		✓		No major works undertaken this financial year
Southern and Western Suburbs Ocean Outfall Sewer 1 (SWSOOS 1)		Y		✓		No major works undertaken this financial year
Southern and Western Suburbs Ocean Outfall Sewer 2 (SWSOOS 2)		Y			✓	No major works undertaken this financial year
SWSOOS–Illawarra Sewer						Disused sewer; condition unknown; no major works undertaken this financial year
Sydenham Pit & Drainage Pumping Station 1	Y		✓			IICATS upgrade completed as part of SewerFix program
Sydney Water Head Office, 1939 building	Y	Y	✓			No major works undertaken this financial year
Sydney Water Head Office, 1965 building		Y	✓			No major works undertaken this financial year
Tank Stream	Y	Y	✓			No major works undertaken this financial year
Thirroul Reservoir No.1 (WS 0116)					✓	No major works undertaken this financial year
Thirroul Reservoir No.2 (WS 0117)			✓			No major works undertaken this financial year
Tunks Park Aqueduct			✓			No major works undertaken this financial year
Upper Avon Pumping Station (WP0097)				✓		No major works undertaken this financial year
Vaucluse Outfall			✓			No major works undertaken this financial year
Veteran Hall Archaeological Site	Y				✓	No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Wahroonga Reservoir (Elevated) (WS 0124)	Y	Y		✓		No major works undertaken this financial year
Wahroonga Reservoir No.1 (WS 0123) and site			✓			No major works undertaken this financial year
Wahroonga Reservoir No.3 (WS 0125)			✓			No major works undertaken this financial year
Warragamba Sewage Treatment Plant				✓		Plant to be decommissioned in 2006-07
Warringah Reservoir (WS 0131)			✓			No major works undertaken this financial year
Water supply pipelines, part of the Upper Nepean Scheme				✓		No major works undertaken this financial year
Waterloo Water Pumping Station (WP0008)			✓			No major works undertaken this financial year
Waverley Reservoir (Elevated) (WS 0136)	Y		✓			Telecommunications tower to be removed as it is causing structural problems; no major works undertaken this financial year
Waverley Reservoir No.1 (Covered) (WS 0132)	Y		✓			No major works undertaken this financial year; internal inspection completed
Waverley Reservoir No.2 (Covered) (WS 0133)			✓			No major works undertaken this financial year
Waverley Reservoir No.3 (WS 0134)			✓			Concrete spalling remedial works planned for 2006-07
West Fairfield Reservoir (WS 0137)			✓			No major works undertaken this financial year
Western Outfall Main Sewer (part of SWSOOS)	Y			✓		No major works undertaken this financial year
Western Outfall Main Sewer–including original Brick Barrel Section				✓		No major works undertaken this financial year
Western Outfall Main Sewer–original Open Trough Section				✓		No major works undertaken this financial year
Whites Creek Sewage Aqueduct	Y		✓			No major works undertaken this financial year
Whites Creek Stormwater Channel No.95					✓	No major works undertaken this financial year

HERITAGE AND CONSERVATION REGISTER 2005-06

Item name	State Heritage Register listed?	Conservation Management Plan (CMP) Prepared?	Condition			Comments
			Good	Fair	Poor	
Wiley Park Reservoir (WS 019)			✓			No major works undertaken this financial year
Windsor (Elevated) Reservoir (WS 0140)					✓	No major works undertaken this financial year
Windsor Water Pumping Station (WP00062)					✓	No major works undertaken this financial year
Wolli Creek Sewage Aqueduct	Y			✓		No major works undertaken this financial year
Wollongong Sewage Treatment Plant				✓		No major works undertaken this financial year
Woollahra Pumping Station (former)					✓	No major works undertaken this financial year
Woollahra Reservoir (Covered) (WS 0144)	Y		✓			No major works undertaken this financial year
Woolloomooloo Stormwater Channel & Hexagonal Sewer						No major works undertaken this financial year
Woronora–Penshurst Pipeline			✓			Work continues to repair leaking joints

4. Special Objectives

Sydney Water environmental performance indicators and legislated Special Objectives

These Special Objectives are set out in the Protection of the Environment Administration Act 1991 and the Sydney Water Act 1994.

SPECIAL OBJECTIVES	Performance area – Annual Report reference
Reduce the impact of Sydney Water's discharges into or onto the air, water or land of substances which are likely to cause harm to the environment	**Discharges to air** Complaints (Odour) – Customer service, page 43 Energy (Greenhouse gases) – Efficient use of resources, page 47 **Discharges to water** Sewage treatment system discharges – Wastewater management, page 18 Sewage treatment plant effluent quality – Wastewater management, page 17 Water recycled – Efficient water use, page 26 Stormwater – Wastewater management, page 16, 19 Recreational water quality – Wastewater management, page 20 Aquatic ecosystems impacts – Wastewater management, page 19 **Discharges to land** Beneficial use of by-products – Efficient use of resources, page 46, 48 Sewage treatment system discharges – Wastewater management, page 18 Water recycled – Efficient water use, page 26
Promote pollution prevention through reduction, reuse and recovery of energy, water and other materials and substances, used or discharged by Sydney Water, by the use of appropriate technology practices	**Reduction, reuse and recovery of energy** Energy (Electricity consumption) – Efficient use of resources, page 47 Energy (Greenhouse gases) – Efficient use of resources, page 47 **Reduction, reuse and recovery of water** Water leakage – Efficient water use, page 27 Water recycled – Efficient water use, page 26 Demand management – Efficient water use, page 25 **Reduction, reuse and recovery of other materials and substances** Beneficial use of by-products – Efficient use of resources, page 46, 48 Stormwater – Wastewater management, page 16, 19 Waste minimisation – Efficient use of resources, page 48
Reduce significantly the combined environmental impact of the per capita amount of energy and water used by the Corporation and of other materials and substances discharged by the Corporation	**Energy use** Energy (Greenhouse gases) – Efficient use of resources, page 47 Energy (Electricity consumption) – Efficient use of resources, page 47 **Water use** Potable water drawn – Efficient water use, page 25 Water leakage – Efficient water use, page 27 Demand management – Efficient water use, page 25 **Materials and substances discharged** Sewage treatment systems discharges – Wastewater management, page 18 Sewage treatment plant effluent quality – Wastewater management, page 17 Beneficial use of by-products – Efficient use of resources, page 46, 48 Stormwater – Wastewater management, page 16, 19 Recreational water quality – Wastewater management, page 20 Aquatic ecosystems impacts – Wastewater management, page 19

	Waste minimisation – Efficient use of resources, page 48
Minimise Sydney Water's creation of waste by the use of appropriate technology, practices and procedures	Waste minimisation – Efficient use of resources, page 48 Stormwater – Wastewater management, page 16, 19 Beneficial use of by-products – Efficient use of resources, page 46, 48
Regulate the transport, collection, treatment, storage and disposal of waste	Trade waste agreements – Wastewater management, page 18 Waste minimisation – Efficient use of resources, page 48 Sewage treatment systems discharges – Wastewater management, page 18 Sewage treatment plant effluent quality – Wastewater management, page 17
Adopt minimum environmental standards prescribed by complementary Commonwealth and state legislation and advising government to prescribe more stringent standards where appropriate	Natural and cultural resources (Heritage) – Efficient use of resources, page 47, 48 Trade waste agreements – Wastewater management, page 18 Contaminated land – Efficient use of resources, page 47, 49 Natural and cultural resources (Flora and fauna) – Efficient use of resources, page 47, 48
Conduct public information and awareness programs about environmental programs, and involve the community in decision-making on environmental matters	Complaints (Odour) – Customer service, page 43 Complaints (Noise) – Customer service, page 43
Ensure the community has relevant information about hazardous substances arising from, or stored by, any industry or public authority	Beneficial use of by-products – Efficient use of resources, page 46, 48 Contaminated land – Efficient use of resources, page 47, 49 Waste minimisation – Efficient use of resources, page 48

5. Environment Plan 2005-2010 Progress Report

Status

Performance is in line with or better than target

Performance is below target but within acceptable levels

Current performance is below target or is forecast to go below target

Objectives	Actions	Targets	Status	Summary
1. Conserve water supplies for a water efficient city	Implement Sydney Water's Demand Management Program to reduce potable water use	Reduce the per capita quantity of water drawn from all sources (excluding recycled water) to 329 L per capita per day by 2010-2011 (adjustments are to be made for the effects of weather on water usage)		As identified in the consultants report for the 2006 Metropolitan Water Plan, Review of the Metropolitan Water Plan: Final Report, it is forecast that the current suite of programs will mean that demand will almost be 329 litres per capita per day by June 2011. Sydney Water is developing a range of new initiatives that will be implemented over the next four years in order to meet the target. As a result of the existing and new programs, Sydney Water is confident that the Operating Licence target will be met. As at 30 June 2006 per capita demand was estimated to be 335 litres per capita per day (climate corrected).
		Review and optimise the Demand Management Program annually		The Water Conservation and Recycling Implementation Report will be provided to the Minister for Water Utilities in September 2006. This report provides information on the implementation of Sydney Water's Demand Management Program. Continuous review and improvement of the Demand Management Program is in place.
		Refine demand forecast and end-use model		Quarterly updates of demand forecast are being undertaken. The method is being revised to enable updates of actual monthly demand. The End-Use Model is currently being updated/calibrated and is due for completion in October 2006.
		Program targets achieved by June 2006		Programs are currently being developed to ensure the target of < 329 L per capita per day of water drawn from storages by 2010-11 will be met.

Objectives	Actions	Targets	Status	Summary
	Deliver the Water Conservation and Recycling Implementation Report to chart progress of Sydney Water's demand management strategy	Report on total water savings, demand and the volume of water recycled for the 2004-05 financial year to the NSW Independent Pricing and Regulatory Tribunal by 1 September 2005	♦♦♦	The Water Conservation and Recycling Implementation Report 2004-05 was provided to the NSW Independent Pricing and Regulatory Tribunal on 1 September 2005.
	Implement Sydney Water's actions under the NSW Government's Metropolitan Water Plan and communicate Sydney Water's role to stakeholders	Participate in whole of Government process for ongoing implementation and review of the NSW Metropolitan Water Plan	♦♦♦	The NSW Government released the revised NSW Metropolitan Water Plan in May 2006. Projects under the NSW Metropolitan Water Plan such as water conservation programs, water recycling, groundwater and desalination readiness are being implemented as detailed below.
		Meet commitments for demand management and desalination feasibility planning from the NSW Metropolitan Water Plan	♦♦♦	During the past year, Sydney Water's demand management programs have increased water savings by approximately 7750 ML/year. Sydney Water's responsibilities under the NSW Metropolitan Water Plan include the planning and implementation of a desalination facility if this is required to meet Sydney's water supply needs during extreme drought. A desalination planning study was completed in July 2005 to define a shortlist of options that would provide security for Sydney's water supply.
	Reduce water supply systems losses due to leakage	Reduce system leakage to less than 105 million litres per day (ML/d) from the drinking water supply system by June 2009	♦♦♦	For 2005-06, leakage or real losses are estimated to be 44,906 ML/year, or 8.5 per cent of the total water supplied. This is equivalent to 123 ML/day. This figure is a reduction from the previously reported figure of 145.3 ML/day (July 2005), or 10 per cent of the total water supplied for 2004-05.

Objectives	Actions	Targets	Status	Summary
	Continue delivery of the active leakage reduction program and the pressure management program	Undertake scanning of 18,000 kilometres of water mains per year over the next four years commencing in 2005-06 and repair leaks targeting areas with high leakage reduction potential	♦♦♦	The annual program was completed with 18,011 km inspected. Sydney Water responds to leak reports based on an assessed priority. Sydney Water's Customer Contact Centre assigns the priority based on information provided by the caller.
		Develop a program to improve flow measurement within the key water supply zones by upgrading, replacing or installing flow meters during the period 2005-06 to 2009-2010	♦♦	In September 2005 funding of $10.4 million was approved for a two-year program to install 68 flow meters. This would enable leakage trend analysis by minimum night flows to increase from 30% to 75% of the water supply network. The Minister's requirements were for the installation of 18 flow meters in 2005-06 and 50 in 2006-07, including 30 renewals. By 31 August 2006, 16 flow meters were installed8.
		Develop a program to target high pressure areas by creating new pressure control zones during the period 2005-06 to 2008-09	♦♦♦	In July 2005 funding of $6.3 million was approved for Stage 1 of the Pressure Management Program, to create 21 pressure management zones in high-pressure areas in Sutherland, Blacktown and Illawarra. Planning for Stage 1 of the program revealed some financial efficiency could be achieved while delivering the same water saving benefits. Therefore, while the number of properties and water savings will be the same, fewer zones will be created.
	Reduce Sydney Water's use of potable water	Ensure that potable water use for treatment processes at each of the Malabar, North Head and Bondi sewage treatment plants has been reduced by 80% in volumetric terms from its 2003-04 usage rates by 30 June 2009	♦♦♦	North Head STP has met the potable water use reduction target of 80% with installation of a recycled water plant. The average daily potable water usage at North Head STP has reduced from 1500 kL/day in 2003-04 to less than 20 kL/day, following the commissioning in August 2005, which equates to 98% reduction from 2003-04 baseline potable water use. Potable Water Efficiency Audits, investigations and monitoring of potable water use are in progress to reduce the potable water use at Malabar and Bondi STPs. Initial improvements at Malabar and Bondi STPs have achieved a reduction of 62% and 53% respectively during 2005-06, based on potable water consumption during 2003-04. New treatment facilities to recycle wastewater at Bondi and Malabar STPs are planned for commissioning in 2008-09.

Objectives	Actions	Targets	Status	Summary
		Ensure that all sewage treatment plants (other than Malabar, North Head and Bondi, and storm flow sewage treatment plants at Fairfield, Bellambi and Port Kembla) use at least 85% recycled wastewater for treatment processes by 30 June 2009	♦♦♦	Monitoring of potable water usage at STPs is in progress. Out of 25 STPs (excluding Malabar, North Head, Bondi, Fairfield, Bellambi and Port Kembla), 22 STPs use at least 85% of recycled water for treatment processes. Shellharbour, Mount Victoria and Blackheath STPs are currently not meeting the 85% recycled water target. Shellharbour STP is expected to achieve this target upon completion of the current upgrade. Mount Victoria and Blackheath STPs are slightly below the targeted 85% recycled water use. These sites are not high water users, representing less than 1% of potable water used at Sydney Water's STPs. The use of recycled water at these sites has been optimised and current planning for the Blue Mountains will result in decommissioning of these STPs by the end of 2008.
		Undertake water efficiency audits at all sewage treatment plants (other than Malabar, North Head and Bondi) by 30 June 2007, and implement appropriate findings under a water conservation plan by 30 June 2009	♦♦♦	Potable Water Efficiency Audits have been completed for Malabar, Glenfield, North Head, Castle Hill and Liverpool STPs. Audits are in an advanced stage at Bondi, Wollongong and Shellharbour STPs. A Potable Water Efficiency Audit Plan has been prepared to carry out the remaining audits by 30 June 2007.
		Prepare Water Saving Plans and implement actions as required by the Energy Administration Amendment (Water and Savings) Bill 2005 by March 2006	♦♦	The NSW Department of Energy, Utilities and Sustainability (DEUS) clarified that a Water Savings Action Plan (WSAP) was only required for Sydney Water's Head Office site. The United Group who manage Head Office applied to DEUS for an extension of the timeframe for submission of the WSAP. The WSAP was developed under the United Group's chairmanship, signed off by Sydney Water and was submitted to DEUS on the revised due date of 30 June 2006. The WSAP identified the major sources of water usage and quantified the scale of water wastage in the building. It also contains a commitment to implement key water usage improvements and revitalise the water usage awareness program over the next 18 months.

Objectives	Actions	Targets	Status	Summary
	Communicate applicable level of water restrictions and/or permanent measures	Increase community awareness of water restrictions achieved by September 2006 as measured through customer surveys	♦♦♦	Awareness of Level 3 water restrictions has remained high and relatively unchanged in 2005-06 with 86% of those surveyed aware of compulsory restrictions in June 2006. A water restrictions awareness campaign is planned for mid-September 2006.
	Develop and implement education programs/campaigns to support Sydney Water's short and long term water conservation initiatives	Program delivery goals met	♦♦♦	Delivery goals for the Every Drop Counts and Every Drop Counts in Schools Programs have been achieved with 58 businesses and 54 schools participating in the program in 2005-06, surpassing the program targets of 50 and 40 respectively. 12,053 rebates have been issued under the Rainwater Tank Rebate Program, surpassing the target of 8400 rebates for 2005-06. 126 schools have also received rainwater tank rebates during 2005-06 as part of the Rainwater Tanks in Schools Rebate Program, surpassing the target of 100 schools.
		Increase community awareness of key Sydney Water projects, programs and initiatives as measured through customer surveys	♦♦♦	Awareness of the WaterFix program increased from 48% in October 2005 to 52% in June 2006. Awareness of the Do-It-Yourself (DIY) water saving kit increased from 22% in October 2005 to 31% in June 2006. There has also been a significant increase in the acquisition and installation of the DIY kit. About one third of water users are aware of the washing machine rebate scheme, introduced in March 2006. Installation of rainwater tanks continues with 25% of those surveyed in June 2006 being likely to install a rainwater tank in the next 12 months.
	Develop and implement Smart Growth Action Program	Assist in the extension of the NSW Building Sustainability Index (BASIX) by providing expert advice to the by the Department of Natural Resources (formerly DIPNR) on water use, water efficient appliances, and consumption patterns	♦♦♦	Sydney Water has provided data and advice to the Department of Planning (formerly DIPNR) and has been working with the Department of Planning to provide a methodology for the development of BASIX. Data is expected to be forwarded by the Department of Planning in September 2006.

Objectives	Actions	Targets	Status	Summary
		Develop evaluation programs with the NSW Department of Natural Resources for BASIX by negotiating electronic and automatic data sharing arrangements	♦♦♦	Sydney Water and the Department of Planning are currently progressing a joint monitoring and evaluation program for BASIX. The monitoring program will assess the performance of BASIX compliant homes against reduction targets and inform the BASIX policy, assumptions and calculations. A solicitor is reviewing privacy issues associated with data transfer between Sydney Water and the Department of Planning, and a data sharing agreement is being prepared. The agreement is expected to be signed in December 2006.
		Implementation of Memoranda of Understanding with Australand and LandCom and identify key projects and opportunities by December 2005	♦♦♦	The Sydney Water and LandCom Statement of Cooperation was signed on 21 March 2005. The Sydney Water and Australand Statement of Cooperation was signed on 6 August 2003. There is ongoing work with Australand and LandCom on sustainable water savings on residential growth developments.
		Assist the Department of Planning in the planning and implementation of RetroFIX (point of sale efficiencies) by July 2007	♦♦♦	The Department of Planning has not pursued the planning and implementation of RetroFIX (point of sale efficiencies). As such, Sydney Water has not had opportunity to provide assistance.
	Engage residential, business and government sectors in water efficiency initiatives	500,000 residential households retrofitted by 1 July 2007	♦♦	In 2005-06, 65,517 retrofits (annual target of 75,000) were completed under the WaterFix program. The WaterFix contractor has experienced delays in achieving the required weekly rate. The DIY water savings kit marketing program significantly changed resulting in much fewer kits distributed. More than 37,000 DIY kits have been distributed to date. Recent evaluations have indicated less than expected DIY kit installation rates.
		Rainwater tank rebate program continued until July 2008	♦♦♦	The target of 8400 rebates for 2005-06 was surpassed with 12,053 rainwater tank rebates issued. The program will continue until 31 July 2008.

Objectives	Actions	Targets	Status	Summary
		Landscape assessment program and associated products and services developed by June 2006	♦♦♦	As at 30 June 2006, 1868 properties had participated in the program. Evaluation of the pilot program has been completed. It is planned that landscape assessments will be carried out for approximately 40,000 further properties by 2010. A web-based plant selector has been developed to help customers identify water efficient plants.
		Achieve Every Drop Counts education program targets by June 2006: –50 new Business Program participants –40 new Schools Program participants.	♦♦♦	The Every Drop Counts education program targets of 50 businesses and 40 schools in 2004-05 were surpassed. 58 businesses and 54 schools participated in the program in 2005-06. Sydney Water also received the prestigious 2006 International Stockholm award for the Every Drop Counts Business Water Conservation Program in recognition of its work with business, industry and government to reduce water usage and ensure the long-term sustainability of Sydney's water supply.
		Contribute to the development by the NSW Department of Energy Utilities and Sustainability of a regulatory framework for community-based or on-site wastewater recycling systems	♦♦♦	Sydney Water provided comments on a draft document released by DEUS on 23 March 2006 titled Management of Private Decentralised Recycled Water Systems, Draft Regulatory Framework. DEUS is currently incorporating these comments and the final document is expected to be released in October 2006.
		Conduct a trial of the installation of individual meters for each unit in a new multi-unit building and evaluate the outcomes of the trial by 30 September 2006	♦♦♦	A trial on the installation of individual water meters in two multi-unit buildings commenced in July 2005. Two Meriton buildings were selected to investigate different metering set-ups: manual reading of individual meters (at Rhodes) and remote recording of water usage (at Hornsby). Work to convert plumbing and install meters at Rhodes was completed in January 2006. Work is underway at Hornsby to install cabling and to retrofit the individual meters on a floor-by-floor basis. Sydney Water will produce a first stage report of the project’s findings by September 2006.

Objectives	Actions	Targets	Status	Summary
2. Maximise the beneficial use of recycled water	Work with the NSW Government to develop the Metropolitan Strategy: Recycled Water: –develop and communicate Sydney Water's Recycled Water Plan –identify viable recycled water projects and investigate environmental impacts.	Deliver Metropolitan Water Plan recycled water projects BlueScope Steel, Liverpool Golf Course, Rouse Hill Stage 3 Release Areas and Hoxton Park residential schemes, North Head STP and Malabar STP with an expected total recycled water volume of 15 GL/per year	♦♦♦	Construction is complete on the BlueScope Steel recycled water facility. The Liverpool Golf Course recycling scheme was commissioned in 2004. The Rouse Hill Stage 3 and 4 release is in delivery phase for the Network component and in planning phase for the Treatment component. The Review of Environmental Factors (REF) for the Hoxton Park scheme was displayed in June 2006. The North Head recycling facility was commissioned in October 2005 and has been operating successfully since then. A new recycled water facility at Malabar STP is currently in the planning phase.
		Implement Sydney Water's commitments under the NSW Government Metropolitan Strategy: Recycled Water when finalised	♦♦♦	The NSW Government released the 2006 Metropolitan Water Plan in May 2006. Sydney Water is currently working with Government to deliver water recycling projects as part of the Metropolitan Water Plan. Recycling projects to date include recycling at Sydney Water STPs, urban and agricultural irrigation projects and residential dual reticulation. Further opportunities are being pursued including industrial and commercial projects, Hawkesbury-Nepean Replacement Flows Project through the Western Sydney Recycled Water Initiative, and irrigation and residential dual reticulation projects.
	Pricing principles for recycled water to be agreed by the NSW Independent Pricing and Regulatory Tribunal (IPART) and Sydney Water	Establish efficient recycled water prices to implement Sydney Water's actions under the Metropolitan Water Plan	♦♦♦	On 12 July 2006 IPART released a report containing draft pricing guidelines for mandated water schemes, a draft determination for recycled water prices for the Rouse Hill scheme and a draft determination on a recycled water developer charges methodology. Sydney Water made a submission on the report on 4 August 2006. IPART's final report will be released in September.

Objectives	Actions	Targets	Status	Summary
	Respond to and engage with government in relation to market structure	Sydney Water submission on industry structure reform delivered to IPART by October 2005, for consultation with Government regarding an effective reform for water services in Sydney	♦♦♦	A submission to IPART was prepared and lodged by Sydney Water on 29 September 2005 and IPART released its final report on industry structure in November 2005. The IPART review recommended development of a State access regime and increased outsourcing but with no major changes to industry structure.
3. Contribute to healthy waterways and clean beaches through effective wastewater management activities	Deliver capital works, operations and maintenance programs to achieve the following Department of Environment and Conservation (DEC) Environmental Protection Licence (EPL) objectives: –undertake practical measures to protect the environment and public health from sewage treatment plant effluent and sewer overflows	Overflow Abatement Program implemented according to Pollution Reduction Program (PRP) requirements: –dry weather overflows reaching waterways reduced to meet DEC targets for 2010, achieving linear progress towards improvements required by 2020 –Sewer Catchment Asset Management Plans for all sewer catchments finalised by July 2007 –the Wet Weather Hot Spots Program delivered to reduce the impact of wet weather sewage overflows for priority sites within the Georges River, Port Hacking and Darling Harbour regions by July 2007	♦♦ ♦♦ ♦♦♦	In 2010, DEC will set a licence target for the number of dry weather overflows reaching waterways within each Sewer Catchment Asset Management Plan (SCAMP) area. In the interim, Sydney Water will report to DEC on those SCAMP areas performing worse than the 2010 target, and consider whether works or operational changes are warranted. In 2005-06, 90% of SCAMP areas met their 2010 target (based on a 12-month rolling average). 41 SCAMPs were completed in 2005-06 and 37 are to be completed in 2006-07. The remaining 28 are now planned for completion by July 2008. The Wet Weather Hot Spots contract has been awarded and progress is on track.

Objectives	Actions	Targets	Status	Summary
	–efficiently manage the sewage treatment system to minimise harm to the environment and public health –ensure there is no deterioration and continuing improvement in the sewage treatment system environmental performance relative to existing conditions –minimise the frequency and volume of overflows and sewage treatment plant bypasses	Improve wet weather performance as per DEC overflow targets in the following sewerage systems: –Blackheath–to a frequency of 10 wet weather overflows in 10 years by July 2008 (the updated 2005-06 overflow targets for the Blackheath Sewage Treatment STS are a frequency of 10 wet weather overflows in 10 years for the network and 33 wet weather overflows in 10 years for the STP) –Shellharbour–to a frequency of 40 wet weather overflows in 10 years by July 2010 (the updated 2005-06 overflow targets for the Shellharbour STS are a frequency of 48 wet weather overflows in 10 years by July 2010 for the network and 52 wet weather overflows in 10 years for the STP)	 	Note: the 2005-06 DEC Sewage Treatment System (STS) Licence targets were updated and came into effect from 1 July 2005. The summaries below reflect the updated targets and are subsequent to the finalisation of the Environment Plan. The 2005-06 system performance was 10 wet weather overflows in 10 years for the network and 20 wet weather overflows in 10 years for the STP. The Blackheath STS met both environmental targets. The 2005-06 system performance was 93 wet weather overflows in 10 years for the network and 30 wet weather overflows in 10 years for the STP. The Shellharbour STS met the STP environmental target but did not meet the network target as a result of growth in this catchment. The upgrade to sewage pumping station SPS1101, which will soon be commissioned, is expected to create a significant improvement in the wet weather overflow performance.

Objectives	Actions	Targets	Status	Summary
		–Warriewood–to a frequency of 20 wet weather overflows in 10 years by July 2010 (the updated 2005-06 overflow targets for the Warriewood STS are a frequency of 48 wet weather overflows in 10 years by July 2010 for the network and 92 wet weather overflows in 10 years for the STP)		The 2005-06 system performance was 40 wet weather overflows in 10 years for the network and 99 wet weather overflows in 10 years for the STP. The Warriewood STS met the network environmental targets but did not meet the STP target. The reduced wet weather performance of the STP was a result of increased flows to the STP due to a change to the pumping rate at SPS 414. As part of the Wet Weather Program 2007-10, Sydney Water's planning for the Warriewood system will provide storage and sewer amplification to meet the PRP targets by 2010.
		–Bombo–to a frequency of 40 wet weather overflows in 10 years by July 2010 (the updated 2005-06 overflow targets for the Bombo STS are a frequency of 48 wet weather overflows in 10 years by July 2010 for the network and 17 wet weather overflows in 10 years for the STP)		The 2005-06 system performance was 66 wet weather overflows in 10 years for the network and 16 wet weather overflows in 10 years for the STP. The Bombo STS met the STP environmental target but did not meet the network target. Planning has begun to address the non-compliance. As part of the Wet Weather Program 2007-10, Sydney Water's planning for the Bombo system will provide storage and sewer amplification to meet the PRP targets by 2010.
		–Illawarra Wastewater Strategy commissioned by 2006		The extended ocean outfall for the Illawarra Wastewater Strategy (IWWS) is now fully commissioned and operational marking commencement of the IWWS. The transfer systems and Bellambi Storm Sewage Treatment Plant (SSTP) are fully commissioned and operational. Port Kembla SSTP commissioning is underway. Wollongong STP Actiflow system is yet to be commissioned. Delays in commissioning resulted from difficulties experienced during construction of the extended ocean outfall due to storm damage. Commissioning of specific process units could not be progressed without the additional outfall capacity.

Objectives	Actions	Targets	Status	Summary
	Provide sewerage services to currently unsewered areas in accordance with agreed government priorities and funding arrangements	By 30 June 2009 connection made available to all lots eligible for connection under Stage 1 Priority Sewerage Program, excluding those lots in the area of Menangle/Menangle Park. Stage 1 lots are: –Upper Blue Mountains-Mt Victoria –Medlow Bath, Blackheath –Brooklyn, Dangar Island –Jamberoo –Menangle, Menangle Park –Mt Kuring-gai Industrial Estate –Mulgoa, Wallacia, Silverdale –Stanwell Park, Stanwell Tops, Otford, Coalcliff –Oaks, Oakdale, Belimbla Park.	♦♦♦	Connection is available for the areas of Jamberoo, Stanwell Tops, Stanwell Park and Coalcliff, The Oaks and Oakdale and Belimbla Park. REFs were exhibited in late 2005 for the Upper Blue Mountains and submissions are being considered. It is expected that construction will be completed by mid 2009. The Minister for Water Utilities approved the Brooklyn and Dangar Island scheme in March 2006 and construction work commenced in April 2006. Residents will be able to connect from late 2007. An REF is currently being prepared for Mt Kuring-gai and will be placed on public display in late 2006. Construction commenced at Mulgoa, Wallacia and Silverdale in January 2005 with connections expected to be available later in 2006.
		By 30 June 2006 report to the Minister on the plan to service the area of Menangle/Menangle Park	♦♦♦	Sydney Water advised the Minister of Water Utilities prior to the 30 June 2006 on how it intends to service the area of Menangle/Menangle Park. The area will be serviced as part of the overall servicing for the proposed Menangle Park Urban Release Area. This is likely to occur in 2009.

Objectives	Actions	Targets	Status	Summary
		By 30 June 2009 commence work that, when completed, will permit connection to be made available to at least 30% of lots eligible for connection under Stage 2 Priority Sewerage Program, and including those lots which are situated in areas adjacent to World Heritage areas. Stage 2 Lots are: –Agnes Banks, Londonderry –Appin, Douglas Park, Wilton –Bargo, Buxton, Yanderra –Cowan; Glossodia, Freeman's Reach, Wilberforce –Hawkesbury Heights, Yellow Rock Austral, West Hoxton Galston, Glenorie –Nattai –Scotland Island		Detailed planning and assessment work on the first ten of these villages will commence in 2006-07 with construction timing to be confirmed after planning and funding approvals have been gained. Planning and assessment work began in July 2006 for Hawkesbury Heights, Yellow Rock, Glossodia, Freemans Reach and Wilberforce. Planning work on Appin, Douglas Park and Wilton will commence by January 2007 with planning to commence for Agnes Banks and Londonderry by July 2007. In line with the 2005-2010 Operating Licence, Sydney Water will start construction on at least two of the first four Stage Two sewerage schemes by mid 2009. Preparation for the remainder of Stage Two villages will start after planning for the initial four schemes is complete.
4. Ensure all activities and operations are in compliance with environmental statutes	Ensure compliance with the NSW Department of Environment and Conservation Environmental Protection Licences (EPLs) for Sydney Water	No prosecutions resulting from non-compliance with EPL.		There have been three Penalty Infringement Notices (PIN) received this year (under the Protection of the Environment Operations Act 1997) associated with breaches of conditions under STS licences. The first PIN was received on the 28 August 2005 for a wet weather overflow from SPS353 at Glenfield (part of the Malabar STS Licence) in February 2005. The second PIN was received on the 13 January 2006 for high ammonia levels at West Hornsby STP in June 2005. The third PIN was received on the 9 February 2006 in relation to odour complaints at Malabar STP in January 2006. There have been no breaches of conditions under licences for Water Treatment Plants.

Objectives	Actions	Targets	Status	Summary
		100% compliance to EPL limits for STPs for chemicals, toxicity, load and concentration	♦♦	Three licence limits were exceeded in 2005-06, down from seven last year. These occurred in the Total Suspended Solids load limit, the BOD load limit and the Total Phosphorus load limit for Picton STP Precautionary Discharges to Stonequarry Creek.
		No dry weather overflows from licensed Sewage Pumping Stations by June 2006	♦	There was one overflow from a No Dry Weather Overflow Station (SP0022) in 2005-06 due to an Energy Australia fault caused by an electrical storm. DEC have requested further information on the overflow. A Contingency Plan is in place and an ongoing wet test program is being implemented to ensure this incident does not recur.
	Monitor the environmental impacts of Sydney Water's activities and operations under the Environment Protection Licence and improve the efficiency of current monitoring and knowledge management systems	Results of environmental monitoring reported annually to DEC and summarised in Sydney Water Annual Report	♦♦♦	All STS Monitoring programs required by DEC have been completed for 2005-06 and these results will be reported in the Annual Returns submitted to DEC on the 28 August each year. DEC then assess Sydney Waters compliance and post results to the DEC website. Sydney Water continues to review the efficiency of monitoring programs and data capture mechanisms.
	Monitor and report on the number of Uncontrolled Sewage Overflows in dry weather on private property each financial year	Ensure that no more than 25,000 properties per year experience an Uncontrolled Sewage Overflow in dry weather from Sydney Water's system	♦♦♦	In 2005-06, 22,572 private properties were reported as affected by a dry weather uncontrolled sewage overflow.

Objectives	Actions	Targets	Status	Summary
	Deliver recycled water to meet regulatory standards and national guidelines	100% recycled water compliance with relevant guidelines as specified by NSW Health, the NSW Department of Environment and Conservation, the NSW Department of Natural Resources and the Department of Primary Industries	♦♦♦	Sydney Water currently complies with the requirements outlined in relevant state and national guidelines for specific end uses of recycled water.
	Operate or maintain North Richmond Water Filtration Plant, Manly Dam and Botany Wetlands in compliance with the Water Management Licence administered by the NSW Department of Natural Resources	100% compliance with the requirements of the Water Management Licence	♦♦♦	Sydney Water has met the ongoing requirements of the Water Management Licence, with no non-compliance events for the reporting period.
	Manage trade waste to assist Sydney Water in meeting relevant environmental and other regulations	100% compliance with environment protection licences administered by the NSW Department of Environment and Conservation with respect to contaminants from customers with trade waste agreements or permits	♦♦♦	The 50-percentile, 90-percentile or annual average limits for contaminants recorded on the annual System Performance Report for monthly monitoring of STP effluent were not exceeded. Annual toxicity limits were also not exceeded.

Objectives	Actions	Targets	Status	Summary
		99% of customers with an industrial trade waste process and water consumption >20kL/day with trade waste agreements	♦♦♦	There were 798 industrial consents at 30 June 2006. At the end of the financial year there were 11 industrial consents that had exceeded both the expiry date and the six-month period of grace allowed by Clause 15.4 of general conditions of the consent. Four of these consents were on properties with water consumption of more than 20kL/day. 99.5% of customers in this category held agreements for the entire year.
		98% of industrial customers in declared corrosion-impacted sewerage catchments complying with the localised acceptance criteria and charging regime	♦	There were 58 industrial consents to discharge trade wastewater with biochemical oxygen demand to the corrosion-impacted catchment of SPS 0419. Of these, 54 (or 93.1%) were compliant with the concentration limit of 600mg/L. It is expected that these non-compliances will be addressed by the target date of January 2007 as the dischargers commit to programs of treatment to achieve the concentration limit.
5. Minimise harm to the environment through pollution minimisation and control	Implement the Sydney Water EMS Noise Management Program 2005-06	No noise complaints related to breach of Sydney Water's Noise Management Plan Code of Behaviour	♦	There have been eleven noise complaints in the last twelve months that relate to breaches of Sydney Water's Noise Management Plan Code of Behaviour. The Code of Behaviour is being reinforced through awareness sessions with work teams.
		No more than 100 noise complaints per year from Sydney Water activities	♦♦♦	There were a total of 59 noise complaints due to Sydney Water activities over the last twelve months.
		On a six-monthly basis, analyse the identified cause of each noise complaint in order to minimise the number of complaints	♦♦♦	Six monthly reviews of noise complaints are ongoing. Noise complaints were reviewed in February and July 2006. Actions are being implemented as a result of the findings from these reviews.

Objectives	Actions	Targets	Status	Summary
		All equipment maintained to comply with manufacturer requirements in order to adhere to the NSW Environmental Protection Authority Industrial Noise Policy 2000 noise level criteria		Ongoing maintenance programs have enabled a high level of compliance with the NSW Environmental Protection Authority Industrial Noise Policy 2000 noise level criteria. Four noise complaints were received in 2005-06 related to noise from faulty equipment. These malfunctions have since been addressed.
	Further integrate Stormwater Management into catchment planning processes	Complete the Stormwater Environment Improvement Program by December 2005 for the minimisation of stormwater pollution and submit to the Department of Environment and Conservation by March 2006		Stormwater Environment Improvement Program is complete as at June 2006. Regular progress reports have been provided to the DEC throughout the program. Final submission and report are now being compiled.
		Work with the newly formed Sydney Metropolitan Catchment Authority and other external stakeholders in relation to stormwater management and agree on respective roles and responsibilities by June 2006		The Metropolitan Catchment Management Authority (CMA) Board has been appointed and announced. Key initiatives of the Metropolitan CMA include: Development of Catchment Action Plan to identify gaps, development of Investment Strategy, and lead Coastal Catchment initiative to integrate actions in the Botany Bay Catchment. Sydney Water will be involved on an expert panel for the Catchment Action Plan. A key stakeholder reference group will be formed in 2006 to develop these concepts further. Sydney Water is participating in a number of Metropolitan CMA working groups. The Metropolitan CMA has agreed to chair the Botany Wetlands Steering Committee.
	To encourage waste prevention, minimisation and cleaner production in the commercial and industrial sectors	Deliver trade waste education program to customers, consultants, equipment suppliers and installers, and plumbers to address waste prevention, minimisation and cleaner production:		

Objectives	Actions	Targets	Status	Summary
		–conduct Commercial and Industrial Customer Forums (4 per year)	♦♦♦	Sydney Water conducted four Commercial and Industrial Customer Forums in 2005-06.
		–participate in Australian Environment Business Network Policy Reference Group meetings (4 per year)	♦♦♦	Sydney Water participated in four Australian Environmental Business Network Policy Reference Group meetings in 2005-06.
		–conduct discharge performance meetings with industrial customers (100 per year)	♦♦♦	Sydney Water met the annual target to conduct 100 discharge performance meetings with industrial customers.
		–mail-out of targeted cleaner production material to commercial customers (4000 per year)	♦♦♦	4027 letters were mailed out to commercial customers in 2005-06.
		–conduct seminars for consultants, equipment suppliers, installers and plumbers (3 per year)	♦♦♦	Three seminars were completed in 2005-06. Seminars were held at Lidcombe, Illawarra and Ryde.
	Continue odour mitigation programs for a reduction in Sydney Water's	Verify, investigate and respond to 100% of odour complaints	♦♦♦	All odour complaints are investigated as part of normal business. Odour enquiries are recorded and are responded to by a field crew who make initial investigations for the source of the odour. Customers are interviewed for all odour complaints recorded in the complaints database.

Objectives	Actions	Targets	Status	Summary
	odour complaints	Maintain downward trend in annual number of odour complaints from the reticulation system based on the preceding four year average	♦	331 odour complaints were recorded for the period 1 July 2005 to 31 June 2006. The number of odour complaints has increased from 189 complaints received in 2004-05 and 206 complaints received in 2003-04 as a result of odour issues at Malabar STP. The interpretation of complaints has changed in the 2005-2010 Operating Licence meaning that this result is not comparable with the preceding four-year average. Actions to manage the emission of odours from Malabar STP include the addition of lime to biosolids, adjustment of Odourlock doses upstream of the plant, modifications to the biosolids building and refurbishment of odour scrubbers.
		Continue the SWSOOS Corrosion Control Program including the installation of Odour Control/Chemical Dosing Units and monitor, assess and optimise the performance of the units	♦♦♦	At June 2006 there were 16 Chemical Dosing Units (CDUs) and 6 Odour Control Units installed on the Malabar (SWSOOS) Wastewater System. There are plans to progressively optimise and assess the performance of each CDU. Studies for 5 of these CDUs were completed during 2005-06.
	Appropriately manage ongoing risks to the environment and corporation posed by land contamination	Assess each land acquisition and disposal for contamination risks prior to the completion of the property transaction	♦♦♦	Sydney Water has an ongoing program of assessing all acquisition and disposal sites for contamination before a transaction occurs. The requirement is 100 per cent compliance with this target.
		Manage sites under Sydney Water control to minimise risks and reduce exposure from contaminated lands	♦♦♦	Sydney Water continues to manage its contamination risks, on its own properties and other lands where Sydney Water operates. Notable projects undertaken since 1 July 2005 include the remediation of Cadigal Reserve under Lewisham Aqueduct at Summer Hill; Hazardous Materials audits of Sydney Water accommodation sites; the undertaking of asbestos cleanups; and identification and remediation of significant contamination by other parties (eg. Matraville Incinerator).

Objectives	Actions	Targets	Status	Summary
	Ensure that environmental controls for capital and maintenance programs are implemented effectively	Integrate an environmental safeguards database into Sydney Water EMS Environmental Impact Assessment procedures by June 2006	♦♦♦	The environmental safeguards database has been incorporated into the Sydney Water Environmental Management System (EMS). A formal process for review and regular update of the database is in place.
		Environmental Impact Assessment process review completed and outcomes incorporated into Sydney Water EMS procedures by June 2006	♦♦♦	Major reforms under the Environmental Planning and Assessment Act have been incorporated into Sydney Water EMS procedures. Future regulatory changes will be incorporated through scheduled annual review of procedures or in response to management review recommendations.
6. Avoid and minimise waste and maximise re-use, recovery and recycling	Implement actions under the Sydney Water EMS Waste Minimisation Environmental Management Program 2005-06 in the key areas of: –construction and demolition waste (internal) –construction and	Maintain ongoing annual benchmarks of: –70% of internal construction and demolition waste reused or recycled –80% of paper waste recycled in Sydney Water Head Office –60% of office waste recycled in Sydney Water Head Office.	♦♦	Approximately 89% of internal construction and demolition waste was reused or recycled in 2005-06. Approximately 85% of paper was recycled in Sydney Water's Head Office. 57% of office waste from Sydney Water's Head Office was recycled or reused in 2005-06. This is an improvement on the 2004-05 figure of 55%.
		90% of water filtration residuals reused	♦♦♦	100% of water treatment residuals were reused or stored for future use.

Objectives	Actions	Targets	Status	Summary
	demolition waste (external) –office waste –water, wastewater and stormwater process waste –communication –measuring, reporting and administration –procurement –integration with corporate and business planning and policy development –research, evaluation and review –target setting.	Incorporate waste minimisation into the procurement of three major products or services each year	♦♦♦	Waste minimisation considerations have been incorporated into the tender for facilities management and maintenance services. Waste minimisation considerations were also incorporated into the tender for desktop computer leasing. Enhanced waste minimisation considerations were included in a variation to the existing contract for cleaning services. In addition ten Negotiated Agreements were renewed, each containing relevant waste minimisation clauses. These included services such as indoor plant hire and service, lock smiths, property maintenance, engineering services, pipe services, cabling, electronics and calibration services.
		Environmental audits under the Sydney Water EMS Environmental Audit Program of Activities 2005-06 to incorporate checks for waste minimisation by June 2006	♦♦♦	The Sydney Water EMS Audit Program 2005-06 included 4 audits of Sydney Water contract documentation, including the standard requirements for waste minimisation and reporting. Further audits are planned for 2006-07.
		Incorporate waste minimisation considerations into all major planning and design activities by July 2008	♦♦♦	Waste minimisation targets were included in the Sydney Water 2005-2010 Environment Plan. Waste minimisation was one of the Environmental Performance Indicators incorporated into Schedule 3 of the 2005-2010 Operating Licence. The new Corporate Environmental Policy includes commitments to waste minimisation, recycling and reduced consumption. Activities to determine the current level of waste minimisation content in planning/design processes/documents are underway.
	Implement Sydney Water's Biosolids Strategy	100% beneficial reuse of captured biosolids per annum	♦♦♦	100% of STP biosolids were beneficially re-used on farms or for composting purposes.

Objectives	Actions	Targets	Status	Summary
	Manage trade waste to assist Sydney Water's sewage processing operations to produce Biosolids and treated water for reuse that meets regulator requirements	Meet agreed quality specifications for substances from trade waste sources to: –achieve corporate targets for 100% of captured biosolids reuse		100% of STP biosolids were beneficially reused in 2005-06.
		–enable effluent reuse.		Sydney Water currently complies with the minimum requirements outlined in relevant state and national guidelines for specific end uses of recycled water.
7. Responsibly manage all Sydney Water's natural and cultural resources and assets	Responsibly manage cultural resources under Sydney Water's care through delivery against the Sydney Water EMS Heritage Strategy 2005-06	Integrate heritage considerations into asset planning and maintenance processes by February 2006		Updated heritage information and Schedules from Conservation Management Plans (CMPs) are being integrated into Asset Class Plans. CMPs have been linked to asset management and maintenance scheduling systems. Minimum standards of repair for heritage items are being referenced in Operating Protocols and Maintenance Specifications for civil assets as per the Governments Total Asset Management guidelines. There is an ongoing review of Sydney Water's Integrated Water and Waste Water Management System procedures to ensure heritage is considered. CMP works will be integrated into the Property and Land Management System when it becomes operational.
		Establish audit program for 220 heritage sites, target of 20% of total sites audited per annum		Target redundant. Sydney Water is required to audit all of its heritage sites annually. All Sydney Water's 220 heritage sites were audited in 2005-06.
	Improve staff awareness of Aboriginal Heritage issues	Deliver training on Aboriginal heritage issues to targeted environmental and project management staff by June 2006		Aboriginal heritage training was delivered on the 15th June 2006. Two further sessions will be run in 2006-07. In addition, a heritage awareness training session, including a component on Aboriginal heritage, was delivered on the 24 May 2006.

Objectives	Actions	Targets	Status	Summary
	Ensure Sydney Water heritage assets are managed in accordance with the NSW Heritage Council Heritage Management Guidelines	Prepare Heritage Asset Management Strategy by January 2006 for approval by the Heritage Council of NSW		The Heritage Asset Management Strategy was approved by Sydney Water's Managing Director in March 2006 and was endorsed by the NSW Heritage Council on 5 April 2006. It is currently being incorporated into the Sydney Water EMS.
	Responsibly manage natural resources under Sydney Water's care through delivery against the Sydney Water EMS Natural Environment Management Plan 2005-2006	Prepare Integrated Environmental Management Plans for priority environmentally sensitive sites by June 2006		Implementation of this target has been delayed. A budget for development of the plans has now been obtained. Sensitive sites have been identified and prioritised and the development of Environmental Management Plans is due to commence in September 2006, with the top 20 completed by June 2007.
	Deliver against the Botany Wetlands Plan of Management and update plan as required	Implement programs to manage sediment and gross pollution; blue green algae; Carp eradication and native fish re-stocking; nutrient management; weeds; native vegetation; bush regeneration and revegetation in 2005-06.		Stormwater Quality Improvement Devices (SQIDs) were maintained, reducing litter and sediment entry into the Wetlands. The main inflow channel was partially de-silted. A new SQID was installed in Bird's Gully, at Astrolabe Park; this should considerably reduce litter and sediment entry from Kingsford Sub-Catchment. Blue-green algae management practices continued through 2005-06 and there were no blue green algal blooms during the period. Water clarity was consistently good, despite low water levels. Submerged aquatic plants now extensively cover the ponds, indicating positive ecological changes. 906 kg of Carp and goldfish were removed from ponds by June 2006. Over 5,000 Australian Bass fingerlings were released to re-establish native fish. Vegetation assessments showed very low levels of aquatic weeds and environmental weeds. Native vegetation has increased and native vegetation communities (i.e. Eastern Suburbs Banksia Scrub) were improved through bush regeneration. Transplanting and revegetation in riparian zones improved other vegetation interfaces.

Objectives	Actions	Targets	Status	Summary
		Implement Ecological assessments of Wetland health, and long term monitoring program in 2005-06	♦♦♦	Assessments conducted in 2005-06 indicate positive ecological changes. Ecological assessments were based on the rapid assessment method, which monitor macro invertebrate signatures and the well-established SIGNAL Biotic Index. All nine ponds were sampled in 2005-06. Historical trends in ecological health were analysed. All ponds showed continuous improvement in ecological health based on the SIGNAL Index. The improvements in some ponds (Mill Pond, Pond 2) were quite significant. Other ponds also indicated improvement through time. Amphibian diversity showed an improvement (five species); reptiles were more abundant and are occupying greater habitat diversity.
		Revise the Botany Wetlands Plan of Management by July 2006	♦♦	The resumption of the management role by Botany Wetlands Environmental Management Steering Committee is a key achievement during 2005-06, which fulfils best management practice environmental obligations and stakeholder expectations. Under the guidance of the Committee, a new Draft Plan of Management (POM) has been developed and prepared for wider consultation in September-October 2006. Sydney Water's expectation is that the new POM would be adopted by December 2006.
8. Minimise the environmental impact of Sydney Water's use of energy	Minimise the environmental impacts of energy use through the implementation of the Sydney Water Energy Management Plan 2004-05 to 2009-10	By 30 December 2005 develop the baseline and key performance indicators to improve Sydney Water's energy efficiency	♦♦♦	Baseline key performance indicators were developed prior to December 2005 for our major energy consuming equipment and were first employed in January 2006. This variance report is produced monthly by comparing the energy performance of some of our most energy intensive sites to their performance in the previous year, using $/ML (sewage/water pumped/treated) as a key performance indicator. This report helps Sydney Water to monitor energy performance and rectify any problems identified in the report.
		Generate a minimum of 20 GWh/annum of renewable energy by 2010	♦♦♦	A total of 15.8 GWh from Malabar and Cronulla cogeneration plants was produced in 2005-06. The North Head cogeneration plant is planned to be online by June 2007 and will produce approximately 7.4 GWh of renewable energy per annum increasing the total energy generated to over 20 GWh in the next year. Plant reliability is a factor that may impact the total generation delivered and has recently been improved. Additionally, Sydney Water has a number of other renewable energy generation projects in define/design stage.

Objectives	Actions	Targets	Status	Summary
		Implement energy initiatives that achieve greenhouse gas abatement of 90,000 tonnes per annum by 2010	♦♦♦	Sydney Water achieved 25,204 tonnes of greenhouse gas abatement in 2005-06 from its cogeneration facilities and purchase of Green Power. The North Head cogeneration facility will increase greenhouse gas abatement by an additional 7,200 tonnes per annum when it comes online. This is aimed for the period April-June 2007. A number of renewable energy generation projects (currently in define/design stage) will further assist in greenhouse gas reduction.
		Reduce energy consumption in buildings by 25% between 1995 and 2005 where cost effectively feasible and in accordance with the NSW Government Energy Management Policy targets	♦♦♦	In 2005-06, electricity consumption in Sydney Water buildings subject to the NSW Government Energy Management Policy target was 10,666,441 kWh. This is a 41% reduction on the level of electricity consumed in 1995-96.
		100% compliance with all energy related regulations under the NSW Government's Energy Management Policy	♦♦♦	NSW Government's Energy Management Policy (GEMP) target: 25% reduction in energy consumption in buildings by 2005. Sydney Water achieved a 41% reduction in energy consumption in buildings subject to this target between 1995-96 and 2005-06. NSW GEMP target: Purchase a minimum of 6% Green Power. In 2005-06, 6.8% of Sydney Water's total electricity consumption was green energy, made up of 2.6% Green Power purchased and 4.2% renewable energy produced by Malabar and Cronulla cogeneration plants. NSW GEMP target: 4.5 star energy rating in new buildings. Energy efficiency of 4.5 star rating under the Australian Building Greenhouse Rating Scheme is included in the specifications for Sydney Waters new Parramatta Head Office.
	Develop strategic direction in relation to greenhouse gas emissions management	Finalise the Sydney Water Greenhouse Gas Strategy and incorporate in 2006-07 Business Plans and the Environment Plan	♦♦♦	The Draft Greenhouse Gas Strategy is in the final stages of approval and has been incorporated into the 2006-07 Environment Plan. It is currently being incorporated into the relevant 2006-07 Business Plans.

Objectives	Actions	Targets	Status	Summary
9. Continue to improve environmental management practices and an environmentally responsible culture	Maintain the Sydney Water EMS to comply with the international standard ISO 14001: 2004 for certification	Address the ISO 14001 Business Review Report recommendation by September 2005		85% of improvement requests and 96% of observations raised in the ISO 14001 Business Review Report, were addressed prior to the external certification surveillance audit in November 2005. By 1 June 2006 all certification audit findings had been addressed to the satisfaction of the external certification body. The Sydney Water EMS continues to respond to system improvements that have been identified in subsequent surveillance audits.
		Revise Post Implementation Review Procedure by December 2005 to ensure that the review of completed projects considers environmental assessment		A new Post Implementation Review policy and framework was approved in December 2005, with some modifications to be approved in August 2006. Expressions of Interest for a panel of facilitators are currently being prepared. A Capital Information System will be used to revise learnings to provide a more effective reference tool in late 2006.
		Comply with the Sydney Water EMS Environmental Audit Program of Activities 2005-06 covering all elements of the Sydney Water EMS		The Sydney Water EMS Audit Program for 2005-06 including a comprehensive coverage of all elements of the Sydney Water EMS with over 65 internal audits completed. The 2005-06 Audit Program included audits of projects being carried out by Sydney Water and/or contractors, Sydney Water EMS processes, and other Sydney Water certified management systems and numerous site inspections.
		No major Review Findings at the six-monthly Post Certification reviews to achieve re-certification of the Sydney Water EMS in March 2008		There were no non-conformances identified at the six monthly Post Certification reviews of the Sydney Water EMS in 2005-06.
	Develop sustainability planning tools and decision-making framework	Complete the Sydney Water EMS Environmental Impact Assessment process review of project planning by June 2006		A process review has been undertaken to ensure that the Sydney Water EMS has been included within Sydney Water's Decision Support Manual. The methodology for predicting environmental risks for projects in the planning approval phase is provided by procedures within the Sydney Water EMS. The assessment of environmental performance for each financial year is also undertaken through the Sydney Water EMS, which informs a review of Sydney Water's significant environmental impacts and Sydney Water's performance reported in the Sydney Water Sustainability Performance Scorecard.

Objectives	Actions	Targets	Status	Summary
	Develop and deliver targeted Environmental Education Program to Sydney Water staff —improve staff awareness of Aboriginal Heritage issues	Complete a Sydney Water wide Training Needs Analysis of job roles with specific environmental responsibilities by July 2006	♦♦♦	A Sydney Water wide Training Needs Analysis (TNA) has been completed with environmental aspects of the TNA highlighted and managed through Sydney Water's Environmental Education Program.
		Identify generic levels of environmental competence required for all staff by December 2005	♦♦♦	Generic environmental responsibilities have been included within a matrix listing Accountabilities and Authority Statements for Position Descriptions.
		Develop and deliver training to achieve environmental competencies by July 2008	♦♦♦	The Environmental Education Program has been reviewed and will be implemented to achieve environmental competencies by July 2008.
	Deliver Streamwatch Program objectives	Effective Streamwatch network of 200 community and school groups throughout Sydney Water's area of operations at June 2006	♦♦♦	Streamwatch is in its 15th year, has over 5500 regular participants in over 250 groups and has monitored water in 318 sites in Sydney, the Illawarra and the Blue Mountains over the last financial year. Streamwatch also has historical data sets for a further 306 sites.
		Jamberoo Priority Sewerage Program supported by a Streamwatch group monitoring water quality. Report on number of group participants, sites tested and data sets entered on Streamwatch website	♦♦♦	The Jamberoo Streamwatch group has 9 participants, 15 sites being tested and 158 sets of data have been collected and entered on the Sydney Water website. The group has won various awards in 2005 including the Dolphin Award for the most outstanding group in the entire Streamwatch Network. They also won a highly commended in the Excellence in Water Quality Monitoring Awards.

Objectives	Actions	Targets	Status	Summary
	Implement appropriate communications/ educational activities with the community to support Sydney Water's environmental management initiatives	Heightened community awareness as measured by quantitative research on community reactions to: –water restrictions (Level 3) –water conservation/ education measures.		Awareness of water restrictions and penalties peaked in January 2006 and again in May 2006, with awareness dropping off in June 2006. Sydney Water customer research shows that there is an overall increasing belief that households can make a difference to water savings and that there is more a household can do to conserve water. Wise water use continues to be a dominant mindset. There has been a considerable increase in awareness of water savings devices and good outside water use practice has continued.

Status


Performance is in line with or better than target


Performance is below target but within acceptable levels


Current performance is below target or is forecast to go below target

Environment Plan 2005-2010 Progress Report