

State of the catchments 2010

# Economic sustainability and social well-being

## Sydney Metropolitan region

### State Plan target

Natural resource decisions contribute to improving or maintaining economic sustainability and social well-being (ESSW).

### Background

This report focuses on links between change in natural resource management (NRM) and ESSW which can be influenced by government. These changes are hard to measure, due to the complex interactions between the environment, society and individuals.

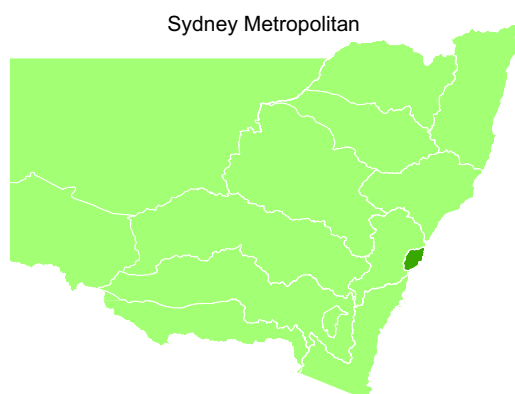
### Understanding ESSW in the Sydney Metropolitan region

Current social research by the Sydney Metropolitan Catchment Management Authority (CMA), NSW Department of Planning, the Australian Bureau of Statistics (ABS) and Industry & Investment NSW (I&I), focused on NRM issues in the Sydney Metropolitan region, was reviewed. No overall assessment of the condition (strength and number) of the links between natural resource decisions and ESSW is given, as the distinctions between stakeholders' perceptions and experiences are significant. These differences are critical to understanding the likely contributions of natural resource decisions to ESSW in different parts of the community.

A detailed technical report describes the methods used to derive the information contained in this report. At the time of publication of the *State of the catchments (SOC) 2010* reports, the technical reports were being prepared for public release. When complete, they will be available on the I&I website: [www.industry.nsw.gov.au/info/mer](http://www.industry.nsw.gov.au/info/mer).

**Note:** All data on natural resource condition, pressures and management activity included in this SOC report, as well as the technical report, was collected up to January 2009.

## Map of the catchment



## Overview

### What do people in this region see as important to maintaining community vitality?

- At the 2006 census, Sydney had 3,645,143 residents which accounted for about 55 per cent of the state's population. The Sydney population is now estimated to be 4.34 million
- The Sydney Metropolitan region covers 0.2 per cent of the state's total area and extends three nautical miles offshore
- The economic activity of the City of Sydney alone is estimated to be about 25 per cent of the state's gross domestic product
- The largest population increases in 2006–07 in NSW local government areas were in or adjacent to the Sydney region, particularly the western growth corridors
- The Sydney basin is the fifth most bio-diverse region in Australia. However its biodiversity is also one of the most threatened by population and invasive species pressures
- Approximately 40 per cent of the Sydney Metropolitan region remains as intact native vegetation areas. Within the region there are seven national parks, 11 aquatic reserves, three state conservation areas and one state forest. The Australian Defence Force is also a major landholder of natural bushland, especially in the Georges River catchment.

### What is the state of ESSW across the region?

Recreation, bio-services and urban infrastructure help natural resources in the region support the daily needs of this densely populated region. Other direct contributions include:

- significant extractive industries, eg coal, natural gas and sand mining, which support the construction industry
- water for irrigated intensive horticultural and agricultural industries, which produce about 10-15 per cent of Sydney's fresh produce
- green space and waterways for sporting and leisure activities
- water storages in the Georges River catchment and bores which provide water for residential and industrial uses, parks, gardens, bowling greens, etc

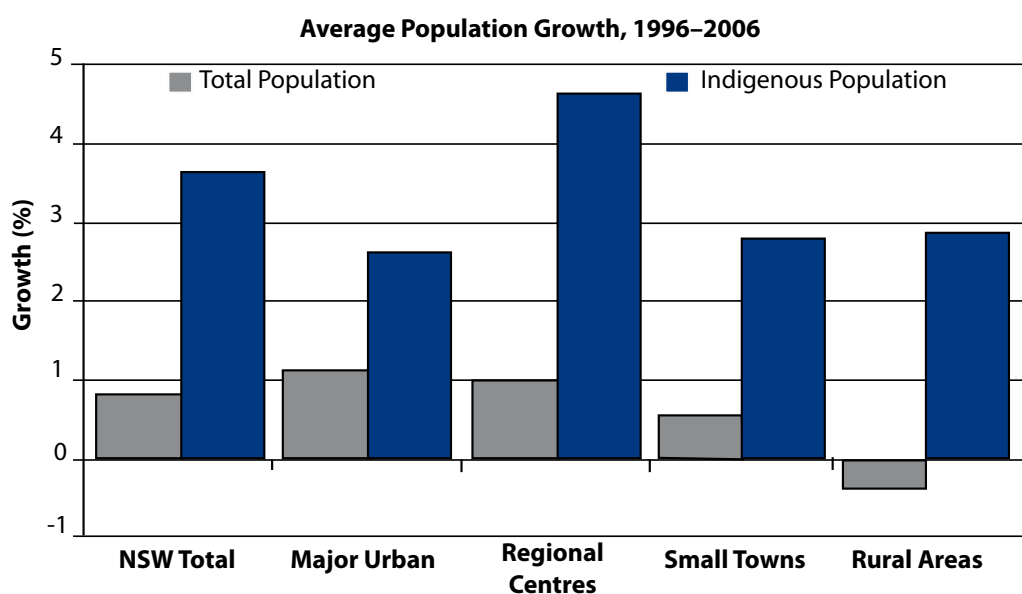
- tourism, with more than half of all international visitors to Australia visiting this region and Sydney Harbour rated as the greatest tourism asset.

### Aboriginal interests – connections to culture

The well-being of Aboriginal communities, as well as their ability to access land and its natural resources, is entwined with the health of the environment. Limited access and its associated impacts on cultural practice have created a history of socio-economic disadvantage.

Studies demonstrate that participation by Aboriginal people in the Australian Government’s ‘Caring for our Country’ initiative benefits both the environment and social cohesion. Meaningful NRM jobs provide many tangible, individual and family benefits as well as an increased sense of worth within Aboriginal communities.

Figure 1 shows that, over the past 10 years, the NSW indigenous population has grown at a faster rate than the total population. The indigenous population growth is around 3700 people per year; however, this number is considerably smaller than the total population increase of around 51,000 per year. The Australian Bureau of Statistics (ABS) has suggested that the high level of indigenous population growth may be a result of both high natural growth and more people being prepared to identify their indigenous origins in the census.



**Figure 1 Growth of indigenous population compared with general population**

Graph provided by Bureau of Rural Sciences (BRS) from Australian Bureau of Statistics (ABS) data, 2008

### Trends – community views

#### Landscape changes

Changes to the landscape include:

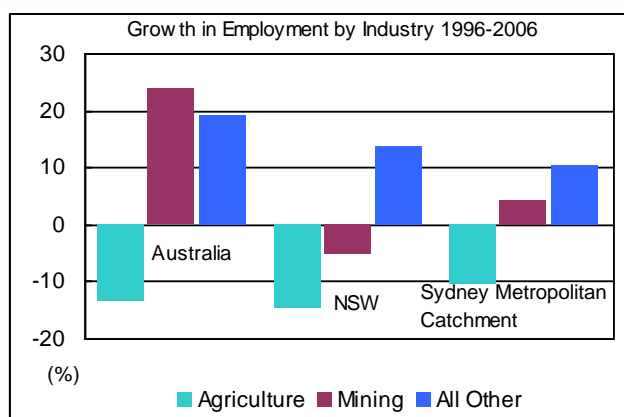
- urban development is the most significant land-use change in the catchment, with the proportion of greenfield release areas in rural areas forecast to increase to three per cent of new dwellings by 2014–15

- in the north-west and south-west growth centres there is a total greenfield dwelling potential of 160,000 dwellings. The Sydney region's 20-year average annual increase in dwelling supply is about 24,000 of which about 7500 dwellings are built within 64 greenfield release areas. The Metropolitan Development Program (NSW Planning) manages land and housing supply
- the proportion of multi-unit dwellings has been steadily increasing to about 75 per cent of the new housing, except for the greenfield sites in the outer ring, where it is significantly lower (11 per cent between 2000 and 2005). These areas have the lowest population densities.

### Primary industry

There are approximately 2200 growers using commercial irrigation in the region, mainly located in local government areas in the outer ring. About 900 growers are vegetable farmers who provide about 10-15 per cent of Sydney's fresh produce. High land prices in the region dictate the development of very intensive agriculture but also act as a barrier to passing down farms to future generations. Security of tenure, urban encroachment and shrinking profits are important issues, especially for many vegetable growers in the North West and South West growth corridors. Other issues include:

- market forces dictating the need for farm sizes to increase in order to remain commercially competitive; although, due to increasing land values, this is extremely difficult in the Sydney Basin
- many full-time farm workers from non-English speaking backgrounds – many ethnic producers supplement off-farm work with horticultural activities and more than 80 per cent of vegetable growers have less than two hectares in vegetable production
- the majority of agricultural land in the region used for pastures, with land-use gradually changing from food production to leisure interests, eg agistment for horses and polo fields
- an increasing number of agricultural holdings, despite losses in land available for agriculture – agriculture and its secondary industries produce more than \$1 billion in commodities every year
- in the local government inner ring, culturally significant market gardens operate in the urban areas around Botany Bay, with farming associations one of the cultural focal points, creating social opportunities in many migrant communities
- the reduced employment in agriculture – although employment in this sector declined by more than 10 per cent across NSW (1996–2006), it fell less significantly in the Sydney Metropolitan region.



**Figure 2 Decline in agriculture employment over 10 years**

Graph provided by Industry & Investment NSW (I&I) from ABS data, 2008

## Community work

Community work regarding ESSW is as follows:

- in 2007, environmental volunteers in Sydney completed more than 178,000 hours of on-ground work, which has been valued at \$5.3 million
- there are about 1000 Landcare and Coastcare groups in the Sydney area, with 8800 people volunteering on a regular basis
- there is an increasing trend in corporate volunteering as awareness of productivity losses resulting from sedentary lifestyles drives interest in workplace wellness programs
- an ageing demographic, combined with Sydney's large population, presents significant opportunities to gain health and social benefits from greater environmental volunteering rates (Landcare 2008).

A survey of community-held environmental values in the Sydney region found that degradation in water quality and loss of biodiversity in flora and fauna were the greatest concerns. Other findings included:







- recreation was the most valued catchment activity with walking/bushwalking, especially near waterways, identified as the top activity over the past five years
- picnics and parties were the second most frequent outdoor activities over the same period, with swimming considered the most preferred future use of the catchment
- community education and coordination between government bodies were seen as important factors in improved waterway management.

Table 1 provides a summary of comments made by the key stakeholder groups.

**Table 1 ESSW check and group comments**

Likely impact of NRM decisions on ESSW	Condition	Trend	Data confidence	Notes
Business profitability and expansion		?	L	No data available.
Increased employment		?	H	Employment in agriculture, forestry and fishing decreased; however, there were gains in mining between 2001–2006 (see Figure 2).
Gaining more formal and informal skills		?	L	No data available.
Community networks and interaction		?	L	Bushcare, supported by local government, is the most common organisation for environmental volunteering.

Participation in NRM	↑	L	Volunteer numbers reported by the Sydney Metropolitan CMA have increased, with 21,000 people volunteering (both regularly and infrequently) for on-ground environmental work in 2007.
More effective NRM decision-making	↑	L	There are 39 local government areas and six Aboriginal Land Councils within the region. The Sydney Metropolitan CMA seeks to influence coordination of natural resources within this region.

Condition	Trend	Data confidence
 Very good	↑ Improving	H High
 Good	↔ No change	M Medium
 Fair	↓ Declining	L Low
 Poor	? Unknown	
 Very poor		
 No data		

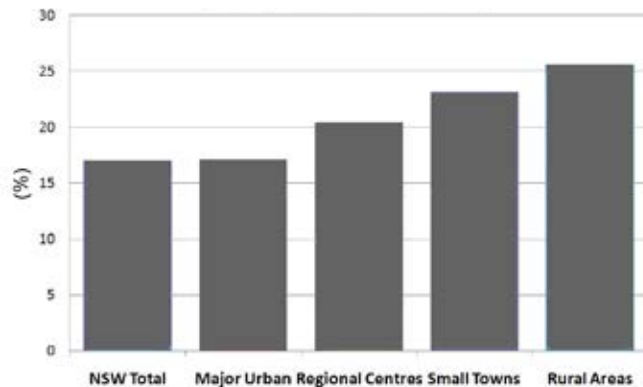
## Pressures

A number of pressures, centred on urban development, are influencing land-use change and water quality as well as affecting access to natural resources and their links to ESSW in the region. These links primarily affect people's ability to use environmental services.

Major pressures come from overall resource condition (eg soil health), availability (eg increased competition for water), access (eg for recreation, traditional foods and medicines) and quality (eg water quality). Additionally, people with long-term associations with an area – particularly Aboriginal people with cultural responsibilities for landscape health – can feel strong emotional and spiritual connections to the land which increases overall ESSW.

Key pressures include:

- population change – the catchment has experienced rapid population growth with a lower proportion of elderly residents residing along the city's western growth corridors. Population decreased in the older, well-established suburbs but the proportion of older residents has increased
- community capacity – at the 2006 census, 16.2 per cent of the usual residents (aged 15 or older) of Sydney had undertaken voluntary work in the previous 12 months. This was the lowest proportion of all capital cities; the western and south-western suburbs had low volunteering rates compared with those in the city. A comparison of volunteering across the range of NSW areas, including urban areas, is at Figure 3. Volunteering in the major urban areas has been lower than in regional and rural areas



**Figure 3 Percentage of population who volunteer (2006)**

Graph provided by BRS from ABS data, 2008

- market incentives – commercial incentives to develop land currently used for horticulture are reducing the viability of many of these industries
- drought/climate change – ornamental plants and turf growers have seen reduced demand. Food producers have been moderately affected by irrigation time restrictions
- pollution – key threats to water quality include inadequate sewerage infrastructure and pollution, eg rubbish, urban development runoff, industry runoff and chemical impacts. Lack of community awareness/ownership has also been identified as an underlying threat to water quality.

## Management activity

Monitoring ESSW is an evolving field for government and, as such, monitoring work has been developed to mesh with national approaches. Fieldwork has gathered qualitative data on the impact of CMA actions and also larger scale government investments in NRM. Monitoring occurs through several processes, including key stakeholder focus groups and interviews, with larger community samples improving reliability where possible.

### State level

The State Plan target requirement is to 'contribute more effectively to natural resource investment decision-making achieving socio-economic outcomes'. The NSW Government aims to achieve this through improved priority identification and decision-making capacity of CMAs and agencies. A socio-economic training module, designed to extend I&I's monitoring, evaluation, reporting and improvement processes, is currently being developed. I&I is working with several CMAs and state target themes to ensure the effectiveness of this module.

Other socio-economic activities being undertaken at the state level include:

- developing common guidelines for country-wide socio-economic analysis
- identifying Aboriginal cultural heritage assessment priorities and progress assessments to assist land-use planning and NRM investment decision-making
- implementing the Aboriginal BioBanking Program
- development of a state-wide Aboriginal Land and NRM Action Plan 'Healthy Country – Healthy Communities' – this will assist in developing clear policies, principles and tools to improve socio-economic outcomes for Aboriginal people through enhanced capacity to participate in land

management and NRM

- the Aboriginal Heritage Mapping and Assessment Program, which is a whole-of-Government program that provides a coordinated and consistent approach to collecting, managing and using spatial information for Aboriginal heritage values – the program incorporates cultural mapping standards, regionally based assessment and appropriate management of Aboriginal information. It aims to develop inter-agency priorities and key deliverables for Aboriginal heritage information, assessment and mapping.

## Further reading

In addition to sources listed below, data on farms in the Sydney basin was provided by I&I . For information contact the I&I Natural Resources Advisory Services, Richmond NSW.

Andrews V and Smith L 2006, *UTS Final Report- A community based survey: the knowledge and attitudes towards urban biodiversity of the residents and users of the Cooks River Corridor*.

Australian Bureau of Statistics 2006, *Map Stats by Natural Resource Management Region*, [[www.censusdata.abs.gov.au/ABSNavigation/prenav/TopicList?method=Place%20of%20Usual%20Residence&subaction=1&producttype=MapStats&areacode=NRM104&action](http://www.censusdata.abs.gov.au/ABSNavigation/prenav/TopicList?method=Place%20of%20Usual%20Residence&subaction=1&producttype=MapStats&areacode=NRM104&action)].

Australian Bureau of Statistics 2006, *Population Characteristics, Aboriginal and Torres Strait Islander Australians: New South Wales*, Cat. no. 4713.1.55.0001.

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Landcare 2008, *Theme: News and Campaigns*, [www.landcareonline.com/news](http://www.landcareonline.com/news).

NSW Department of Planning 2007, *Metropolitan Development Program Residential Forecasts 2005–06–2014–15*, Sydney.

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Sydney Metropolitan Catchment Management Authority 2008, *Determining the Environmental Values of Botany Bay and its Catchments*, Parramatta, NSW.

Sydney Metropolitan Catchment Management Authority 2008, *Environmental Volunteering in the Sydney Region 2007*, Parramatta, NSW.

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