

# message from the premier

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The environment needs to be central to everything we do – because our lifestyle and future prosperity depend on it.

Instead of seeing a growing economy as mutually exclusive to a healthy environment, we understand our economy is critically reliant on a healthy environment.

Climate change not only threatens our plants and animals, but also infrastructure, business, tourism and communities.

A water shortage is not only a problem for rivers. It affects our agriculture and manufacturing industries, and with them, the livelihood of all Victorians.

Last year we released a Sustainability Framework – to make the environment central to our decision-making.

The response from Victorians to our approach has been positive with a clear message that we need to put the principles of sustainability into practice right away. Which is why we are releasing *Our Environment, Our Future* - an action plan with more than \$200 million of initiatives to help meet the challenges.

We are acting now to prepare for the unavoidable impacts of climate change including the risk of increased bushfires, droughts and storms.

We are acting now to have healthy and productive land, forests and ecosystems so that Victoria's \$16 billion food industry and \$8.5 billion tourism industry can keep growing.

And we are acting now to have enough water to meet our future population growth, and to have clean air so that we remain one of the most liveable places in the world.

There is no easy fix to our environmental challenges. These actions will help all Victorians in every home, business and farm, to start living and working in a more sustainable way.

*Our Environment, Our Future* contains the significant environmental reform Victoria needs for sustainable growth.

A handwritten signature in black ink that reads "Steve Bracks". The signature is fluid and cursive, with a period at the end.

**Steve Bracks**  
**Premier of Victoria**

# message from the deputy premier

Six years ago we began the most comprehensive environmental reform agenda in Victoria's history to restore and protect our natural assets.

Our 13 marine national parks and 11 marine sanctuaries were a world first. We have created more national parks than any other Victorian Government. Logging in our forests has been reduced by a third, we are removing cattle from our Alpine National Parks, and our successful water reforms are helping save enough water for the future.

A lot has been done to improve our quality of life for current and future generations, but we still have a long way to go.

Victoria's 'ecological footprint' – the impact our everyday lives have on the air, water and ecosystems that support us – is huge by international standards. If everyone in the world lived like Victorians, we would need four planets to sustain us.

*Our Environment, Our Future* is a major effort to start changing the way we live and do business.

It contains 150 actions – from banning single-use plastic bags to requiring energy retailers to buy 10 per cent renewable energy.

Our goal is to make Victoria a sustainable state by responding to the challenge of climate change, restoring our natural assets, using our resources more efficiently and reducing our everyday impacts.

Victorians have already shown we can make big changes. Since our campaign to save water, Melburnians now use 22 per cent less water than in the 1990s. Now we need to do the same with energy and waste to protect our natural resources.

*Our Environment, Our Future* takes us from defining the problems to delivering solutions. We will need to keep reviewing our actions and setting new goals, but this practical plan shows how we can live and work in a more sustainable way.

I urge all Victorians to join us in tackling the major environmental challenges of our time so we can pass on to our children and grandchildren a State with a bright future.



A handwritten signature in black ink that reads "John Thwaites". The signature is written in a cursive, flowing style.

**John Thwaites**  
**Deputy Premier of Victoria**  
**Minister for Environment**  
**Minister for Water**

# our environment our future highlights

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*Our Environment, Our Future* contains new investment of more than \$200 million and 150 initiatives. Highlights are:

## 1. Responding to climate change

- Require energy retailers to buy 10% of their energy from renewable sources
- \$12.5 million for renewable energy research and commercialisation
- Require Victoria's biggest 250 energy and water users to cut waste under new EPA laws
- Establish a new Research Centre for Climate Change to prepare for local impacts
- Support 'smart energy communities' to use solar and wind power
- Help households save energy with new "smart" power meters

## 2. Maintaining and restoring our natural assets

- \$21 million to provide economic incentives for landowners to participate in solving problems
- Produce a White Paper on protecting biodiversity and restoring land
- Legislate to protect 18 heritage rivers including the Yarra and Mitchell from damming
- \$6 million to improve water quality and reduce algal blooms in the Gippsland Lakes
- Establish an EPA Strike force to track illegal pollution sources into the Yarra
- Recruit more Victorians to Landcare

*Only a healthy environment can deliver nutritious food, clean water, unpolluted air, safe and sustainable employment and the fantastic diversity of life we share this planet with.*

Don Henry, Executive Director  
(Australian Conservation Foundation)



### 3. Using our resources more efficiently

- Legislate to enable a ban on free plastic shopping bags
- Establish 12 waste recovery centres for old paint, batteries, computers and other goods
- Reduce industrial hazardous waste by increasing land fill levies to fund waste reduction
- \$15 million for industry grants to help businesses avoid waste
- \$4 million to support the dairy industry to save water

### 4. Reducing our everyday impacts

- \$4 million to roll-out the GreenHome program showing householders how to save water, energy and reduce waste
- \$7.5 million for a community campaign to save energy and reduce waste in households
- Introduce rebates to encourage replacement of old fridges, heaters and air conditioners with 5 Star alternatives
- \$5.9 million to help Victorians live more sustainably through community grants, incentives and local programs
- Establish a National Centre for Sustainability to teach environmental sustainability

### 5. Government leadership

- Upgrade all public housing to AAA shower heads and dual flush toilets
- Green the Government car fleet by purchasing 150 hybrid cars and using ethanol fuel
- Introduce 5 Star minimum standards for new office accommodation
- \$7 million for hospitals and aged care facilities to be energy and water smart
- Recycle or reuse all Government computers and support suppliers who take back packaging

# introduction

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## The story so far

Victoria is enjoying unparalleled economic growth with more jobs, better services and more people coming to live here – but our future success depends on us all doing more to protect the environment that supports us.

In the last five years, Victorians have really got behind the push to be a sustainable state. We now recycle more than 50 per cent of all our waste, our farmers and agribusinesses are leading the nation in efficient water use and over 100,000 Victorians are now buying Green Power – more than any other State.

But our performance in some areas is going backwards. While we're good at recycling, the amount of waste we produce continues to rise, our water resources remain stretched, our biodiversity is threatened and our greenhouse gas emissions are increasing.

Unless we start to make real progress on these challenges, the future for all Victorians is less certain.

That's why the Bracks Government is taking this major step forward with *Our Environment, Our Future*, an action plan to help government, industry, farmers, businesses and households to protect our assets for future generations.

Our health and wellbeing are inextricably linked to the quality of our air, water, biodiversity and soils – and we need to do more to keep it safe for the future. We have identified five areas for immediate action:

- Responding to the challenge of climate change
- Maintaining and restoring our natural assets
- Using our resources more efficiently
- Reducing our everyday environmental impacts
- Government leadership

## The challenges

To move towards a more sustainable future, Victoria must take advantage of the benefits of bold new opportunities while confronting some critical challenges facing our environment. Key challenges and opportunities include:

### A changing climate

There is now scientific consensus that climate change is happening. The world's reliance on fossil fuels for power generation and transportation and the resulting emissions of greenhouse gases are accelerating climate change. Climate change is expected to make Victoria warmer and drier. Since 1950 Victoria's average temperature has increased every decade and is predicted to rise by between 0.8 and 5 degrees Celsius by 2070.

This might not sound so bad, but scientists advise that dangerous climate change and irreversible damage to our ecosystems occur when temperatures rise by more than two degrees.

For Victoria, this means a much drier climate with serious water supply challenges; more bushfires, floods and storms of greater intensity; and more pressure on our threatened animals and plants.

*Warming by more than two degrees could cause irreversible damage to ecosystems throughout Australia. We need to act now to reduce our greenhouse gas emissions.*  
 John Thwaites, Deputy Premier

CSIRO forecasts that by 2020, Melbourne will have 8 per cent less water. Climate change is already impacting on Victoria with more severe storms and bushfires – insurers are already taking into account the impacts of climate change, such as sea level rise on coastal developments, in pricing their products. We need to adapt to the inevitable changes already occurring and cut our greenhouse gas emissions to avoid dangerous changes to our ecosystems.

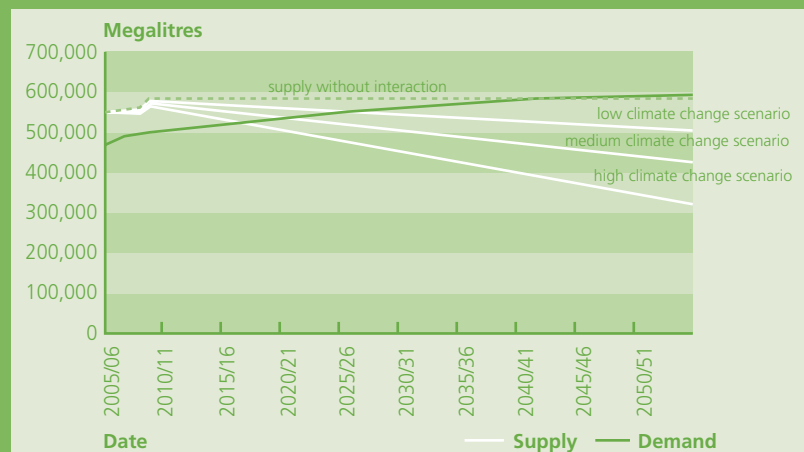
Transitioning to a carbon-constrained future will involve costs to Victorian businesses and households, but these costs will be higher the longer we delay. Economic analysis has shown that Victoria’s economy could benefit in the longer term if early action is taken to position Victoria for a carbon-constrained future.

Planning and investment decisions made now will affect our greenhouse gas emissions profile for decades to come and will influence our vulnerability to climate impacts. Consequently, a key to reducing future costs will be ensuring that decisions taken now do not lock us into costly emissions over the long term or make emissions reduction more difficult in the future. Restoring our natural systems will help reduce the effects of climate change on our landscapes.

> Table 1. Projected average number of summer days over 35° at Victorian centres for 2030 and 2070

Summer Days over 35°C			
	Present	2030	2070
Ballarat	4	4-7	5-17
Donald	12	13-19	15-38
Echuca	16	17-25	20-49
Hamilton	6	6-9	7-19
Melbourne	8	9-12	14-41
Mildura	23	24-33	27-56
Sale	4	5-7	6-16
Swan Hill	20	20-30	24-55

> Table 2. Forecast demand and available supply for greater Melbourne without further intervention



*In 2005 Melbourne recorded more population growth than Sydney, Brisbane and Perth. By 2030, Melburnians can expect to share their city with a million more residents, while regional Victoria will have some 350,000 more residents.*

### Managing population growth

In 2005 Melbourne recorded greater population growth than Sydney, Brisbane and Perth. By 2030, Melburnians can expect to share their city with a million more residents, while regional Victoria will have some 350,000 more residents.

We want population growth for a vibrant economy and growing communities, but we must manage the environmental impacts. With 85 per cent of Victorians now living in cities and towns, programs must be in place to minimise the 'ecological footprint' of the city. The Government is committed to reducing urban sprawl, resource use and waste and creating an environmentally sustainable path for growth and development in metropolitan Melbourne and the surrounding regions.

Through strategic plans like *Melbourne 2030*, we can reduce congestion and pollution, make our urban environments more liveable and safeguard valuable land for agriculture, tourism and the environment.

### Plants, animals and ecosystems under threat

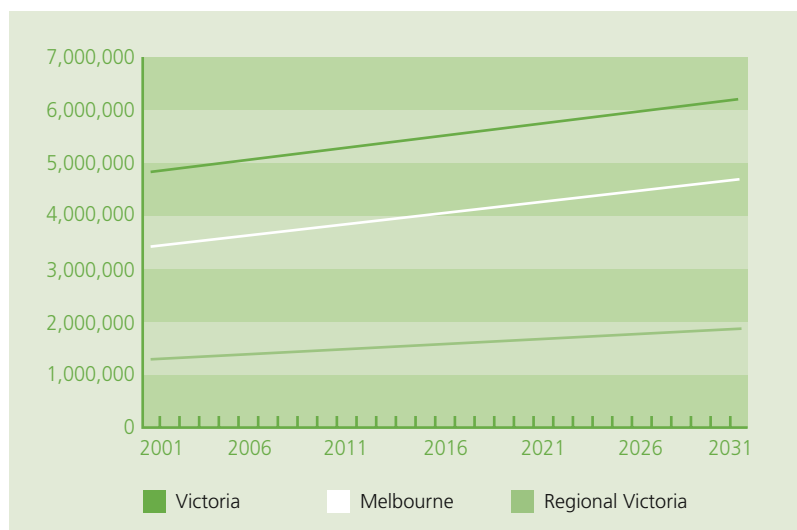
The health of Victoria's land underpins the growth, prosperity and well-being of the State. We live on the land, use it to generate wealth, and it provides a diverse range of environmental services (eg: clean air and water.) However, poor land management practices have caused significant damage, with 44 per cent of our native plants and 30 per cent of native animals now extinct or threatened, has imposed costs on farmers and disruption to agricultural and rural communities.

Victoria's ecosystems are among the most diverse in the world but they are some of the most highly stressed in Australia and will be subject to additional stresses as a result of climate change.

While it is inevitable that our modern lifestyles and our requirements for space and transport will place some strains on the environment, there is considerable scope to reduce our pressure on Victoria's biodiversity.

To continue producing economic gains from our land, sustainable limits must be respected. Better management of land and a better understanding of ecosystem services provided by land also needs to occur.

> Projected Population growth Victoria, regional Victoria and Melbourne 2001-2031.





Conservation of our biodiversity is central to sustainable development, so we must ensure that we accelerate recovery programs to ensure sufficient populations and habitats. To support this work, a landscape-scale approach is needed to repair stressed ecosystem processes and restore habitats.

Effective management of Victoria's water resources is critical to our economy and our lifestyles. Excessive water extraction from our rivers for agricultural and urban use, along with water pollution, has stressed our rivers, wetlands and estuaries. In addition, demand for water is increasing but supply is limited and quality is under increasing pressure. Issues that continue to require urgent attention include salinity, the health of rivers and estuaries, supply for growing urban populations and vibrant agricultural sectors, and water quality and pricing.

Coastal, marine and estuarine environments also provide many important ecosystem services, and their health and condition is highly influenced by catchment processes and activities on the land. It is important that we improve our knowledge of ecological processes and tools for measuring the environmental health of our marine, estuarine and coastal environments.

These issues cannot be addressed in isolation. We must ensure Victoria sustains value and invests wisely in this vital resource. This requires strong partnerships and understanding between all levels of government, the community, major users, water authorities, Catchment Management Authorities and private investors.

#### Market based instruments

Market based instruments are environmental policies in which a change in technology, behaviour or products is encouraged through financial incentives (either subsidies, taxes, price differentiation or market creation). *Source: Environmental Programme for the Danube River Basin*

#### Ecosystem services

Ecosystem services is a concept for explaining how the billions of species on our planet, including humans, interact with one another. These interactions among and between species are what define ecosystems. Ecosystems in turn, provide many "services" from which humans benefit. Ecosystem services are the transformation of a set of natural assets (soil, plants and animals, air and water) into things that we value. For example, when fungi, worms and bacteria transform the raw "ingredients" of sunlight, carbon and nitrogen into fertile soil this transformation is an ecosystem service.

Ecosystem services are little understood and too sophisticated for us to reproduce even with the most advanced technology, yet the important roles of these natural services are not being recognised adequately in economic markets, government policies or land management practices. As a result, ecosystems and the services they provide are in decline. *Source: CSIRO Sustainable Ecosystems Services Project*

*We must create a more efficient Victoria, where waste generation is greatly reduced, resources are used more efficiently and waste disposal at landfill is seen as a last resort.*

### **Waste**

Victorians now recycle more than 50 per cent of their solid waste but we still produce 9.9 million tonnes of waste a year and half of this goes to landfill.

The environmental impacts of wasteful consumption and production patterns are enormous. If everyone in the world lived like Victorians, we would require four planets to provide for us. Developing sustainable consumption and production offers Victoria an enormous opportunity to achieve more from less.

Some of the strongest pressures on our environment are food, energy and water, and travel. Victoria needs to develop a more holistic approach to our consumption and production that considers the impacts of products and services through their entire life cycle, from production right through to use and disposal.

It will require tackling complex factors which influence consumption and production patterns and it will require innovation in technology and the way we help Victorians make more sustainable consumption choices. For example, Victoria has a large food export base and the challenge is to grow these markets while reducing its environmental impacts.

We must create a more efficient Victoria, where waste generation is greatly reduced, resources are used more efficiently and waste disposal at landfill is seen as a last resort.

### Our Healthy Environment Vision

*Growing Victoria Together 2000-2010*, is a 10-year vision for Victoria to become an even better place to live and work, with a thriving economy, quality health and education, a healthy environment, caring communities and a vibrant democracy. *Growing Victoria Together* sets out a blueprint for integrating Victoria's social, economic and environmental goals.

Through *Growing Victoria Together* the Victorian Government has set out a vision that by 2010 Victoria will have attained a 'Healthy Environment' by pursuing the following two goals:

- Protecting the environment for future generations
- Efficiently using natural resources.

*Victoria's Environmental Sustainability Framework* was released in April 2005 to drive the delivery of the *Growing Victoria Together* 'Healthy Environment' vision. *Victoria's Environmental Sustainability Framework* aims to make environmental sustainability a consideration in everything we do by taking a long-term perspective and a holistic approach to improving the environment.

*Victoria's Environmental Sustainability Framework* aims to make Victoria a sustainable state within one generation by: maintaining and restoring our natural assets; using our resources more efficiently; and reducing our everyday environmental impacts. These three directions – form the core of *Victoria's Environmental Sustainability Framework*. To drive the implementation of this framework the Government committed to a conversation with the people of Victoria about how the framework should be implemented.

We have consulted with many Victorians about implementing the framework and benefited greatly from the advice of the Victorian Sustainability Advisory Council. The feedback has been positive and clear that Victoria needed to move from 'talking' about sustainability to delivering it on the ground.

This new statement *Our Environment, Our Future* sets out how we propose to do that to secure a sustainable future – for all of us.

#### Victoria's Environment Sustainability Framework Objectives

- Healthy and productive land
- Healthy and productive water systems
- Healthy marine and coastal areas
- Flourishing biodiversity in healthy ecosystems
- Clean air
- Comprehensive network of parks
- Less waste and increased resource efficiency
- Sustainable forests
- Increased water, energy and materials efficiency
- Reduced climate impact
- Communities with a water, energy, materials saving ethic
- Liveable cities and towns
- Efficient transport systems

### **Our new framework – Victoria's Environmental Sustainability Framework**

*Victoria's Environmental Sustainability Framework* was released in April 2005 and aims to make environmental sustainability a consideration in everything we do by taking a long-term perspective and a holistic approach to improving the environment.

It sets out a clear vision for Victoria to become a sustainable state within one generation by setting three strategic directions, 13 sustainability objectives and a range of interim targets to measure our progress.

A healthy environment underpins Victoria's prosperity and well-being, and as such it must be considered in everything we do, not merely as an afterthought. *Victoria's Environmental Sustainability Framework* establishes three fundamental directions to drive environmental sustainability in Victoria.

Three directions hold the key to improving Victoria's environmental sustainability:

#### **Maintaining and restoring our natural assets**

We must manage our natural assets more sustainably if we are to utilise their full economic and social value and ensure their continued preservation for future generations. Our bushland, forests and waterways deliver valuable resources and services for Victorians.

The Victorian Government has set ambitious targets for economic development, including boosting the value of its agricultural exports to \$12 billion. We simply won't be able to meet these targets if we slowly degrade our arable land, deplete our forests and diminish our rivers.

This doesn't mean locking our assets away forever. Like a smart investor, the Victorian Government believes we can live off nature's dividends without eroding its value as a long-term asset.

#### **Using our resources more efficiently**

The World Wildlife Fund's *2004 Living Planet Report* lists Australia as the fourth most resource hungry country in the world, indicating the significant opportunities for increased efficiency in the way we use our resources/natural assets to secure our well-being. In Victoria, we are facing the specific challenges of conserving scarce water resources and reducing the climate impacts of our use of energy resources.

We can reduce consumption of natural resources while maintaining our standard of living. The keys are minimising waste and increasing efficiency. Through resource efficiency we can generate cost savings and increase our ability to compete globally.

#### **Reducing our everyday environmental impacts**

Everyone has an impact on the environment and everyone has a responsibility to reduce that impact.

Sprawling towns and cities have a direct impact on our environment and shape our resource consumption patterns now and into the future. They consume valuable land and have indirect costs, like increased traffic and congestion.

By encouraging more compact towns and cities, through plans like *Melbourne 2030*, we can reduce congestion and pollution, make our urban environments more liveable and safeguard valuable land for agriculture, tourism and the environment.