



# Victorian Infrastructure Plan

World-class infrastructure strengthens Victoria  
as a globally connected economy, an equitable  
society and an environmental leader.



The Secretary  
Department of Premier and Cabinet  
1 Macarthur Street Melbourne, Victoria, 3002

If you would like to receive this publication in an accessible format, please contact the department on 03 9651 5111

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Cover photo: The Dome,  
Geelong Library and Heritage Centre  
Emma Cross, photographer



The background of the page is a light grey. On the left side, there is a large, dark, triangular shape that contains a starry night sky. This shape is bordered by a white line that runs diagonally from the top left to the bottom right. Above this shape, there is a smaller, orange, triangular shape. The main title 'Aboriginal Acknowledgement' is written in a large, orange, serif font, positioned to the right of the dark triangular shape.

## Aboriginal Acknowledgement

The Victorian Government proudly acknowledges Victoria's Aboriginal community and their rich culture and pays respect to their Elders past and present.

We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us.

We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.



## Message from the Premier

More and more, people are choosing to make their home here in Victoria. In fact, we're this nation's fastest growing state.



**The Hon. Daniel Andrews MP**  
Premier of Victoria

A handwritten signature in black ink, appearing to read 'Dan Andrews', written in a cursive style.

They come here because of all the things that make Victoria so special: our lifestyle, environment, arts and culture, renowned sporting calendar and strong economy.

But as our population grows, our infrastructure and services must keep up.

It's why, since coming to office, we've invested over \$40 billion to build the schools, hospitals, roads and public transport that Victorians need.

It's the largest infrastructure investment in our state's history.

At the same time, we know there is even more work to do. We simply can't afford to hit pause when it comes to building our state.

Through Infrastructure Victoria's 30-year Infrastructure Strategy and with long-term vision from this government, we'll ensure our state continues to prosper.

We'll be able to identify and plan the projects that matter to our future.

And critically, we'll meet the needs of Victorians today, and tomorrow.



## Message from the Special Minister of State

In the past, Victoria's infrastructure delivery has hinged upon the boom and bust of government.



**The Hon. Gavin Jennings MP**  
Special Minister of State

A stylized, handwritten signature in black ink, appearing to read 'Gavin' followed by a large, sweeping flourish.

Rather than a long-term plan, it's been shaped by short-term electoral cycles.

It's why, when we came to government, we created Infrastructure Victoria: a new independent body tasked with providing advice on our state's immediate and long-term infrastructure needs.

Since then, Infrastructure Victoria has produced our state's first ever 30-year Infrastructure Strategy.

It's the result of a year-long conversation with communities across the state, and sets out a plan for our future.

In response — from education to health, public transport to the arts — we've accepted an overwhelming majority of Infrastructure Victoria's recommendations.

Delivering on these recommendations won't always be easy. It will take many hours of planning and many years of work.

But the benefits will last for generations.



Victoria needs world-class infrastructure to drive continued economic growth and to cater for our growing population.

## Executive Summary

Victorians deserve the best in infrastructure and services, from schools to hospitals, public transport, roads and community safety. But as Victoria's population increases and technology progresses, what we demand from our infrastructure will also change.

The Victorian Infrastructure Plan responds to Infrastructure Victoria's 30-year Infrastructure Strategy, released in December 2016. Each of Infrastructure Victoria's 137 recommendations has been carefully considered. The Victorian Government has accepted 134 recommendations, in full, in part or in principle. The reasoning behind government's response to each of the recommendations can be found in Chapter 3. Our approach recognises the importance of strengthening our infrastructure resilience in partnership with government, the public and the private sectors.

The Victorian Infrastructure Plan also outlines the Victorian Government's priorities over the next five years and beyond. This provides certainty for industry on the forward investment pipeline and longer term directions. At the same time, the government will continue to deliver state-shaping infrastructure projects to meet current demand and prepare us for the future.

We also recognise that we need to do more than just build new infrastructure. The Victorian Infrastructure Plan tackles how we can get the most from our existing assets, from maintenance and minor works through to new policy directions and adoption of new technologies.

The Victorian Infrastructure Plan priorities and future directions are informed by the nine critical sectors where infrastructure policy and delivery will be fundamental to Victoria's future prosperity. These sectors and a selection of significant investments are further detailed in Chapter 2.





## Catalyst projects

Victoria is investing in state-shaping infrastructure projects that will have positive and long-term benefits for all Victorians. These projects will stimulate economic growth, create jobs, ensure we feel safe and secure in our communities and maintain our high standard of living.



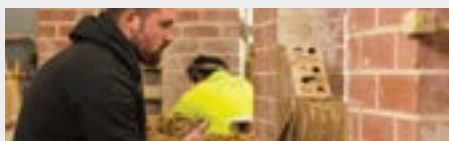
The **\$11 billion** Metro Tunnel will transform Melbourne's public transport system. Regional rail investment of **\$1.3 billion** and **\$1.5 billion** over the last two budgets will ensure all Victorians have access to high quality public transport.



Over **\$5 billion** in our schools over the last three budgets including **\$2.5 billion** for school infrastructure. Now all students and their families can benefit from modern, well-equipped education facilities.



**\$6.9 billion** to remove Melbourne's 50 most dangerous level crossings and **\$100 million** for the first stages of the North East Link. This will reduce congestion and get people where they need to be quickly and safely.



Homes for Victorians makes a **\$2.7 billion** investment in housing and homelessness support. It includes stamp duty reductions to help first home buyers break into the housing market and social housing initiatives to support the most vulnerable in our state.



The **\$5.5 billion** West Gate Tunnel project will provide an alternative to the West Gate Bridge and direct access to the port, generating an **\$11 billion** boost to the Victorian economy. **\$109 million** for bridge upgrades elsewhere in Victoria will help meet freight demand, which is expected to increase by 125% over the next three decades.



More than **\$2 billion** for frontline police, including an additional 3,100 officers on the street, ensuring all Victorians can feel safe and secure.



**\$264 million** in community sporting facilities investment, and **\$445 million** for high performance sport centres and major event infrastructure.



Over **\$2 billion** in additional health infrastructure funding will ensure that Victorians receive first class health service now and in the future, wherever they may live.



Over **\$500 million** of investments in tourism and creative state infrastructure will help the visitor economy, which is projected to expand from around **\$20 billion** in 2016 to **\$36.5 billion** by 2025.



**\$72.3 million** is being invested to improve communications infrastructure for our emergency services across Victoria. Over **\$45 million** will address the digital divide in regional Victoria and support small businesses in the digital economy.



**\$537 million** is budgeted to implement Water for Victoria, **\$273 million** to reduce bushfire risk and **\$86 million** to protect Victoria's biodiversity. These investments will help us to be better prepared for the impacts of climate change on our environment and water resources.



**\$558 million** from the Premier's Jobs and Investment Fund supports economic growth and job creation across Victoria. **\$273 million** funding will support the sectors that have capacity to attract investment to Victoria and create highly skilled, quality jobs for Victorians.





## Navigating this document

### CHAPTER

### PAGE

#### 1. INTRODUCTION

Gives the background, context and key challenges that have led to the development of the Victorian Infrastructure Plan.

12–29

#### 2. SECTOR PLANS

Outlines one to five year funding, actions and long-term priorities for each sector, including individual projects and reforms.

30–125

#### 3. GOVERNMENT RESPONSE

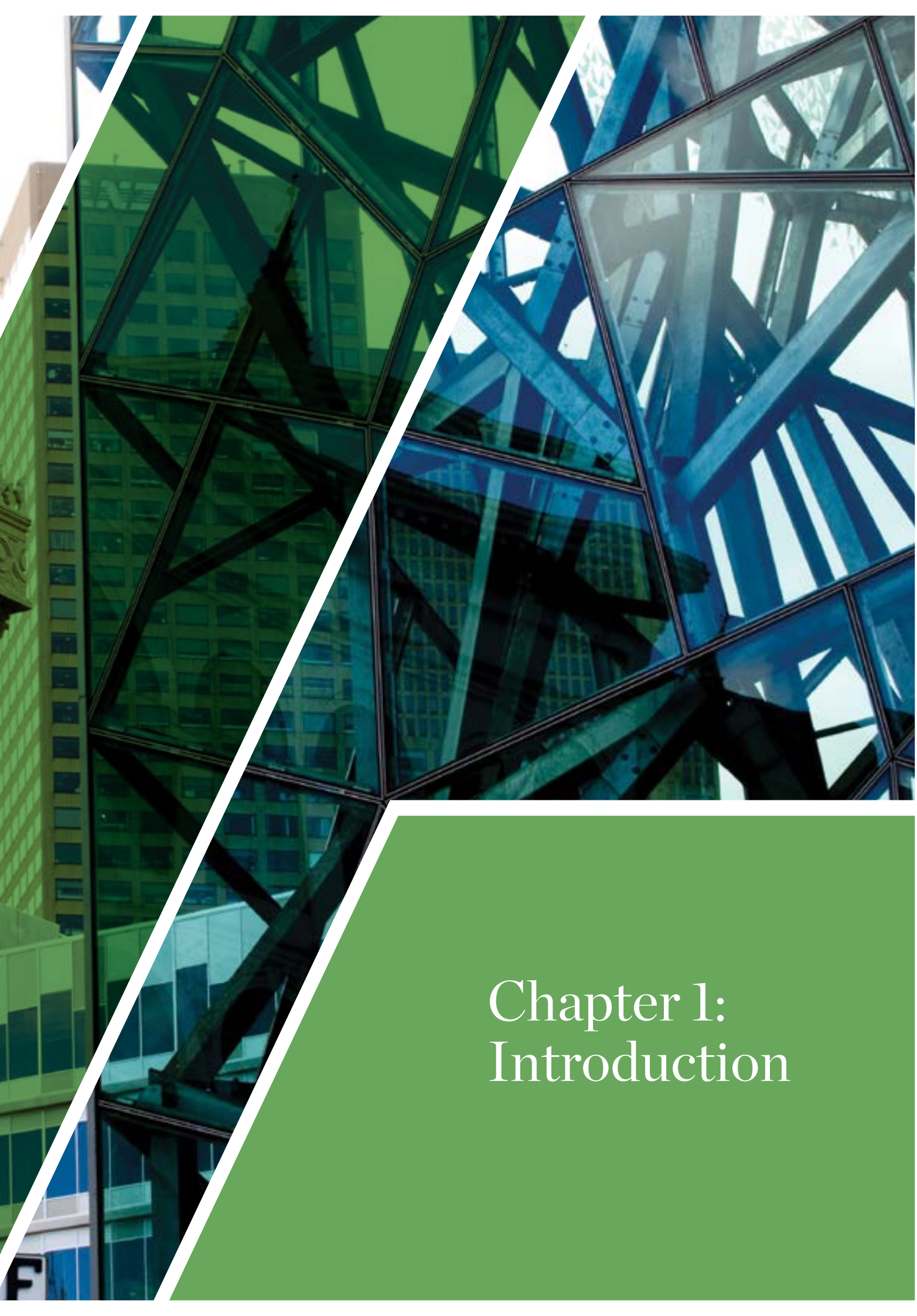
Summarises the government response to each of the 137 recommendations made by Infrastructure Victoria in its 30-year Infrastructure Strategy.

126–175









# Chapter 1: Introduction

# Introducing Victoria's Infrastructure Plan

The Victorian Infrastructure Plan is our first long-term, statewide infrastructure plan delivering the economic, social and environmental outcomes critical to Victoria's continued prosperity.

We live in a time of great change, opportunity and challenge. To make the most of this, we need to plan, prepare and adapt.

The Victorian Infrastructure Plan sets out our infrastructure priorities for the next five years, including the Victorian Government's state-shaping catalyst projects, like Metro Tunnel and the \$6.9 billion Level Crossing Removal Project.

The 2017/18 State Budget invests an average of \$9.6 billion in infrastructure annually over the next four years. This represents a massive increase on the \$5.6 billion average annual spend for the previous decade. However, the plan's focus on integrating investment thinking with new policy directions and delivering the maximum benefit from existing facilities makes it about much more than just building new assets.

## AIM

This plan provides certainty about Victoria's infrastructure priorities, now and in the future. Its foundation is the 30-year Infrastructure Strategy produced by Infrastructure Victoria and one year of community consultation undertaken in the process.

The plan responds to the 137 Infrastructure Victoria recommendations and goes further, by looking at new developments and evidence to deliver a long-term infrastructure pipeline for the whole of Victoria. The Plan is complemented by new ideas and initiatives, which promote the economic, social and environmental benefits that will underpin Victorians' future prosperity and standard of living.

Infrastructure Victoria's 30-year Infrastructure Strategy is a fundamental part of this plan, as it provides a statewide view of our infrastructure needs and solutions.

## SCOPE

The Victorian Infrastructure Plan is long-term, large scale and ambitious in its scope. It is not intended to include an exhaustive list of every activity across every sector, which would run into many thousands of pages.

Rather, this plan provides long-term directions across nine sectors (see Chapter 2), specifying the priorities and funding for years one to five and longer term policy directions that are in line with the Infrastructure Victoria five to 30-year timeframe. New funding beyond the forward estimates is not included in this plan, as this work belongs to future governments.

The threshold for 'major' and 'priority' projects differs for some sectors depending on the size of the sector and the degree of change outlined in this plan.

## UPDATING

This is the first iteration of the Victorian Infrastructure Plan. It is intended that, in future, years one to five projects and reforms outlined in the plan will be reviewed and updated annually as part of the State Budget.

# Overview of Infrastructure Victoria

Infrastructure Victoria is an independent statutory authority that provides advice to government on Victoria's current and future infrastructure needs.

There are a number of provisions in the *Infrastructure Victoria Act 2015* ('the Act') that ensure Infrastructure Victoria is independent of government, including:

- › an objective of independence,
- › independent board,
- › no ministerial direction or control,
- › freedom to publish,
- › independence of advice, and
- › power to obtain information.

Infrastructure Victoria promotes rigorous and transparent decision-making to improve public debate about priority infrastructure projects for all of Victoria.

Infrastructure Victoria has three key roles in accordance with the Act, including:

1. prepare a 30-year Infrastructure Strategy for Victoria,
2. provide advice to the Victorian Government on infrastructure matters, and
3. publish research on infrastructure matters.

Infrastructure Victoria has a long-term, statewide approach in considering the state's infrastructure needs. The organisation takes a broad view of infrastructure that covers many of the state's major policy areas.

## Victoria's 30-year Infrastructure Strategy

Infrastructure Victoria delivered Victoria's first ever 30-year Infrastructure Strategy in 2016, which advises government on the state's short, medium and long-term infrastructure needs and priorities.

The strategy is the result of a year-long conversation with communities across Victoria. It is informed by Infrastructure Victoria's core objective to improve social, economic and environmental outcomes for Victoria.

This strategy sets out 137 recommendations that Infrastructure Victoria believes will deliver the best possible future for all Victorians. The recommendations range from new builds and upgrades, through to the adoption of technologies that allow for more efficient use of our existing infrastructure.



Victoria's 30-year Infrastructure Strategy is available at [www.infrastructurevictoria.com.au](http://www.infrastructurevictoria.com.au)





## Victoria today

We need to ensure we capitalise on our state's solid foundations as we plan for the decades ahead and prepare to build Victoria's future.

Together, we have built a strong and prosperous society. Twenty-three years of consecutive economic growth, including through the global financial crisis of 2008/09, has placed Victoria in a strong position to tackle the challenges of coming decades.

### A STRONG ECONOMY

- › Annual GSP rate of 3.3%
- › Victoria's contributes 22.5% to Australia's GDP, with only 3% of the land mass
- › Maintained a triple A credit rating since 1998
- › Six of Australia's top 10 Australian companies are headquartered in Melbourne
- › A larger economy than Singapore, Hong Kong or New Zealand
- › Highest jobs growth in the nation

### A DIVERSE ECONOMY

- › Education has generated \$5.8 billion in export revenue
- › Our professional services sector is valued at \$63 billion
- › \$23 billion in gross value added generated from our creative industries
- › Our food and fibre exports are valued at \$11.9 billion
- › \$8 billion per year generated by our defence sector
- › Our medical and technologies sector is valued at \$12.7 billion per year

### A SKILLED AND AGILE WORKFORCE

- › Over half of Victorians aged 15-64 hold a post-secondary qualification and over a quarter have a university degree
- › 61% of our population is of working age
- › Victoria has 10 world-class universities, with two among the top 100 institutions in the world

### A VIBRANT AND INCLUSIVE COMMUNITY

- › Melbourne is the most liveable city in the world
- › One of the highest life expectancies in the world
- › Victoria is the cultural and sporting capital of Australia
- › More than 230 languages and dialects spoken

### THRIVING REGIONS

- › Regional Victoria contributes \$66.9 billion to the state economy
- › Regional Victoria contributes about one third of Victoria's \$36 billion export trade
- › 25% of Australia's agricultural production comes from regional Victoria
- › Regional unemployment well below the nation's regional unemployment rate

### WELL-MANAGED NATURAL RESOURCES

- › A legislated emissions reduction target of net zero by 2050
- › 40% of our electricity to be generated from renewable energy by 2025
- › Implementing the Biodiversity 2037 Plan to protect Victoria's environment



# Victoria tomorrow

## Victoria's third population boom is an economic opportunity.

Victoria experienced soaring population growth during the 1850s gold rush, and again in the post-war years. These periods of high population growth contributed significantly to the cultural diversity and economic strength that Victoria has today.

We are now entering our third population boom, with highly skilled people from across Australia and around the globe choosing to live and work in Victoria. Overseas migration currently accounts for 54.6 per cent of Victoria's population growth, with interstate migrants adding a further 12.6 per cent.

By 2051, 10.1 million people will call Victoria home. This means a number of things:

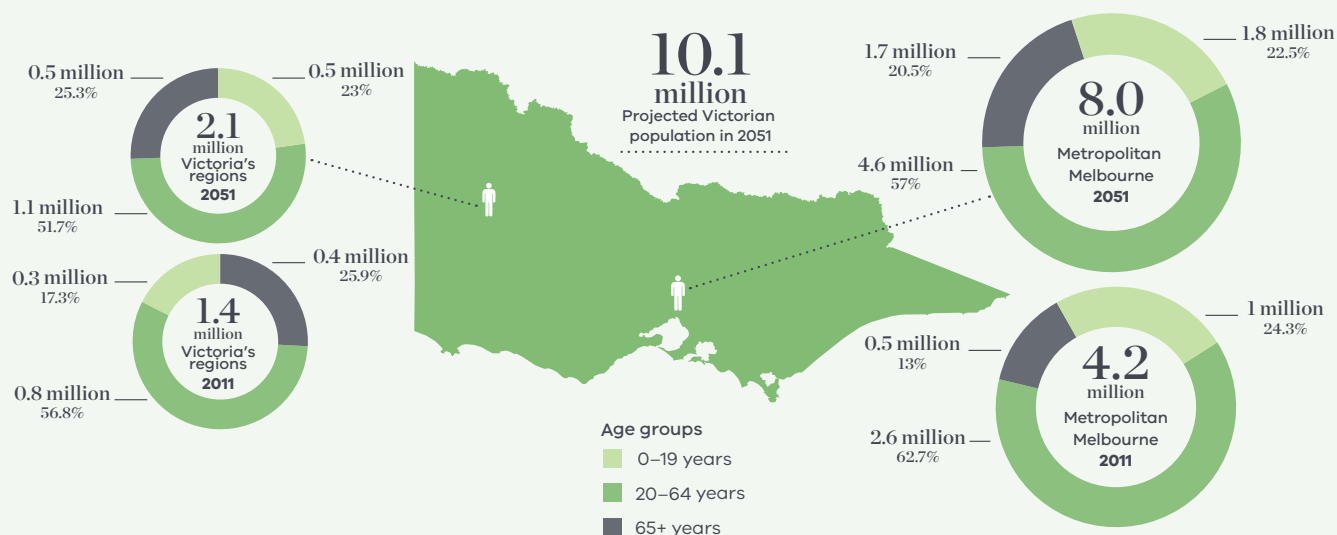
- › we will grow a critical mass of people and the skills needed to deliver continued economic success,
- › our business sectors will have a larger domestic market and greater ability to attract investment into Victoria, and
- › our culturally rich communities will have even greater diversity, and more global connections that form a basis for international partnerships, trade and investment.

## Planning for a Victoria of 10+ million.

Population growth will increase demand for services such as health, education and transport. The right planning decisions must be made today to ensure our infrastructure can accommodate the needs of a significantly larger Victoria. The Victorian population will also be older, with the number of people aged 65 years and over expected to almost triple, from 800,000 in 2011 to almost 2.2 million by 2051.

Importantly, growth must be planned in a way that maintains liveability in all parts of the state, from our cities and towns to small rural communities. Melbourne's growth areas require new public transport, schools, roads, hospitals and jobs to serve new residents. Middle-ring suburbs will need to be supported to accommodate greater diversity in future. Communities in regional and rural Victoria need better access to education, health and employment centres, through improvements to public transport services and road networks.

Figure 1: Victoria's projected population growth



Source: Victoria in Future 2016

People and communities are also changing. We are more mobile than ever, moving in search of the lifestyle we want and the career we desire.



# The world is changing

Technology, culture and the environment are changing at an unprecedented rate. This brings about new challenges as well as opportunities for Victoria.

## GLOBALISATION

Increasing global connections are changing how businesses trade, supply chains operate and services are provided.

Globalisation has provided an opportunity for increased economic development in all corners of the world, including our own. Our international outlook is shifting its focus towards major markets in Asia, such as India and China, who have respective GDP growth projections of 7.5 per cent and 6.3 per cent in 2018.

Victoria's close proximity and similar time zone to Asia, along with our strong cultural ties to the region, positions us well to attract investment and to enter new overseas markets.

## CHANGING TECHNOLOGY

Developments in automation like 3D printing and robotics are causing entire industries to rethink how they do things. Global spending on robotics and related services is expected to rise from US\$91.5 billion in 2016 to US\$188 billion in 2020.

Victoria is supporting its future industries so we can lead new technological developments. The government is proactively engaging with industry partners to strengthen our infrastructure resilience and de-risk cyber security. We're leading the way in autonomous vehicle testing, with trials on EastLink and the Monash-CityLink-Tullamarine freeways.

## CHANGING WORKFORCE

Improvements in technology and communications infrastructure has led to a rise of industries of the future, such as technology-driven work in the medical, new energy, defence and construction sectors.

Victoria is prepared for this change. We are supporting the growth of future industries by making sure that our education and training institutions provide today's students with the skills needed for tomorrow's jobs. We are also bridging the digital divide, ensuring all Victorians have the skills of tomorrow.

## CHANGING COMMUNITIES

People and communities are also changing. We are more mobile than ever, moving in search of the lifestyle we want and the career paths we desire. Global trends show that people are continuing to move to urban areas, where there are more opportunities. More than ever, Victoria is home to increasingly connected, global communities.

## CHANGING ENVIRONMENT

Climate change is increasing the pressure on our natural environment, resulting in more extreme weather events such as floods and bushfires, that can devastate local communities and economies. Engagement with local communities on conservation and resilience building is critical in helping them prepare and recover from extreme events.

Victoria is playing its part in the fight against climate change. We are working to understand how climate change impacts our infrastructure, so we can plan, prepare and adapt. Our 2050 net zero emissions target is good for the environment and our economy, as green industries expand to create skilled, high-wage jobs.



Land use and infrastructure planning go hand-in-hand to create the future we want.

## Planning for the future

### VICTORIA'S PLANNING SYSTEM

We need to sustainably plan for population growth, industry development and further urbanisation. Only through careful and disciplined planning will the right infrastructure be in place where it is needed. Land use planning allows for the coordination and delivery of facilities, services and infrastructure in all sectors across the state.

Victoria's planning system seeks to take full advantage of existing settlement patterns and guides decision-making for investments in transport, communication, water, sewerage and social facilities where they are needed.

### PLAN MELBOURNE 2017–2050

Government's overarching planning policy is Plan Melbourne, which provides strategic direction for how Melbourne will grow over the next 35 years. It supports jobs creation, housing and transport needs, while also building on Melbourne's liveability and sustainability. Plan Melbourne also draws strong linkages to regional Victoria, and the actions needed to meet the needs of growing suburbs and changing demographics. It sets out how to increase the supply of all types of housing, close to where people work and where most of their daily needs can be met. The Homes for Victorians policy also supports this approach and outlines multiple levers to help unlock the housing market.

Plan Melbourne includes planning for future state-shaping infrastructure, such as the Outer Metropolitan Ring Road and a third international airport in the South East of Victoria. The Victorian Infrastructure Plan also references these projects as part of future directions within each of nine industry sectors. These significant projects will deliver benefits for generations to come.







## MANAGING GROWTH

Effective planning enables the coordination and delivery of infrastructure projects in state, sub-regional and sub-metropolitan areas. In its 30-year Infrastructure Strategy, Infrastructure Victoria identified increasing development in established areas and around employment centres, as one of its top three priorities. While government supports this recommendation in principle, a balanced approach is needed to meet future housing needs, which can be achieved through development in a range of areas. These include urban renewal precincts, areas identified for residential growth, grey-field renewal (ageing or undercapitalised areas of inner or middle suburbs), employment and innovation clusters, and metropolitan activity centres. Growth areas will also continue to have a significant role to play in housing Melbourne's growing population, through a sequenced and staged process to land release and infrastructure delivery.

The government has recently announced a number of initiatives to promote growth and increased liveability for regional Victorians. The doubling of the First Home Owner Grant for people purchasing a home valued up to \$750,000 in regional Victoria came into effect on 1 July 2017. This builds on the work of the refreshed Plan Melbourne to deliver greater choice in locations close to jobs and services. A review of residential zone changes and setting out the principles for increasing development opportunities in Melbourne's inner and middle suburbs will make more space available for housing. Additionally, a Regional Rail Revival package worth \$1.5 billion will see upgrades made on every regional line across Victoria. These, and other infrastructure service investments, will attract new skills and investment into regional Victoria and help to support its growing population.

## REGIONAL AND METROPOLITAN PARTNERSHIPS

Establishing nine regional and six metropolitan partnerships gives Victorians the chance to come together as a community and directly advise government on local priorities. This process fosters stronger alliances and improved coordination between all levels of government, local business and community sectors. Additionally, reforms to the *Local Government Act 1989* will modernise the relationship between state and local governments, to better reflect a shared responsibility for engaging with and delivering outcomes for local communities.

## REGIONAL GROWTH PLANNING

The specific growth strategies and infrastructure needs for each of Victoria's nine non-metropolitan regions are being developed by the new Regional Partnerships within the overall framework set by the November 2016 Victorian Regional Statement and the work of Regional Development Victoria.

Establishing nine regional and six metropolitan partnerships gives Victorians the chance to come together as a community and directly advise government on local priorities.





# Making our infrastructure accessible

The Victorian Government is taking a universal design approach to all future infrastructure development.

Universal design is about making facilities and services accessible to people of all abilities. Universal design makes everything usable for as many people as possible from the beginning, so that changes aren't needed later. It is relevant for Victorians with any mobility or accessibility need, from people living with disabilities or temporary injuries requiring mobility aids to families with prams. Universal design also helps older Victorians, by helping people to live at home for longer.

Under the Absolutely Everyone: State disability plan 2017–2020, government is developing policy to embed universal design principles across the state and make more infrastructure, services and places accessible to people of all abilities. This will enable and empower a diverse population by improving social participation, health and wellness.

Universal Design approaches are being applied across various projects, programs and the suburban and regional development networks, including:

- › public transport and road networks, including bicycle and pedestrian facilities,
- › inclusive schools fund,
- › sport and recreation programs, and
- › commitment to build a number of new Changing Places facilities.

Changing Places are a key component of Victoria's Universal Design approach. The facilities are larger-than-standard accessible toilets, with extra features and more space. Ideal locations to install Changing Places are being identified near public transport and community amenities.

Victoria is leading the way with Changing Places and the concept is gaining momentum across Australia. A facility was recently opened at Melbourne Zoo and the first Changing Places equipped commercial office tower is under construction in Melbourne's CBD.



## Moving towards gender equality

The Victorian Government is taking action towards gender equality, including through its infrastructure investment.

The Victorian Infrastructure Plan makes Victoria's infrastructure more accessible and inclusive.

The safety of women and children is a priority. We are establishing 17 new family violence safety and support hubs across the state. These will provide a new way for women, children and young people experiencing family violence to access coordinated support from justice, health and social services. Implementing the specialist Family Violence Courts model in five locations and increased funding for legal assistance will help victims and survivors find justice.

Greater choice in housing type and location will provide women with greater access to jobs and vital services. The Victorian Infrastructure Plan, along with Homes for Victorians and Plan Melbourne, delivers a greater volume and diversity of supported and social housing. This is in addition to the Victorian Government's housing affordability and accessibility reforms.

The new \$200 million Joan Kirner Women's and Children's Hospital in Melbourne's west will provide high quality facilities and expand health services in areas of growing demand. It means more women will be able to get the care and treatment they need, and closer to home.

A drive to make sport more inclusive is a focus of Victorian infrastructure investment. We are building new facilities and upgrading existing ones to deliver female-friendly amenities, increase women's participation in sport and provide more opportunities for recreation.

The Victorian Infrastructure Plan's focus on gender equality builds on Victoria's first Gender Equality Strategy Safe and Strong, released in 2016. As part of Safe and Strong, we are exploring gender audits for major transport projects.

We are building new facilities and upgrading existing ones to deliver female-friendly amenities, increase women's participation in sport and provide more opportunities for recreation.



# Key roles in infrastructure development

All three levels of government are involved in planning, funding and delivering infrastructure. The private sector and the community sector also have important roles to play.

## STATE

The Victorian Government is the primary provider of public infrastructure in Victoria, through planning, funding and delivering projects. The government is also responsible for selecting infrastructure projects, decision-making on investments and setting the guidelines for infrastructure development. This includes ensuring community values are protected, while creating a positive investment environment for the private and community sectors.

The Victorian Government's role in planning and providing infrastructure safeguards equitable access, delivers on community expectations and keeps all parts of Victoria connected. The Victorian Government's role allows it to respond to the needs, challenges and priorities that are unique to Victoria.

Key areas of delivery and policy responsibility include: public transport, railways, roads, ports, water supply and sewerage, education, health, justice, housing, sporting and cultural facilities. The sheer scale of Victoria's infrastructure needs means that a partnership approach is required between the Victorian Government, other levels of government, and the private and community sectors.

## LOCAL

Local government plays a key role in the delivery and maintenance of infrastructure, particularly for local roads, wastewater services and community, sports and recreation facilities.

Local governments generally rely on investment from state and federal governments for major infrastructure works.

## COMMONWEALTH

Responsibility for infrastructure provision is primarily held by state, territory and local government, and the private sector. However, the Commonwealth Government has a role in influencing infrastructure decisions, through the provision of payments to states, territories and local governments. The Commonwealth Government plays a lead role in delivering communications infrastructure, including digital and telecommunications networks. The Commonwealth is also responsible for delivering and managing national roads, major airports and aviation services.

## PRIVATE SECTOR

The private sector is involved in infrastructure development in an expanding number of ways, including the financing, construction and operation of infrastructure. In Victoria, the important private sector role flows from our status as a world leader in the delivery of privately financed infrastructure. As an early adopter of public private partnerships (PPPs), the Victorian Government continues to evolve the PPP model by fostering innovation and encouraging industry development. Victoria is a leader in PPPs, executing 29 projects worth \$15.6 billion over 20 years. These include road and rail projects, as well as hospitals, schools and prisons.

## COMMUNITY SECTOR

The community sector plays a key role in delivering and managing social infrastructure in Victoria, including housing, health and education facilities.

Both the community and private sectors also use Victorian Government investment in infrastructure to create employment pathways for apprentices, trainees and disadvantaged Victorians.

# State infrastructure funding and financing

Victorian Government infrastructure investments of \$10.1 billion in 2017/18 represent 2.5 per cent of the Victorian economy.

The Victorian Government's approach to funding and financing infrastructure seeks to maximise economic, social and environmental value. The government draws on a range of different funding and financing mechanisms to achieve this.

Regardless of the source, well-targeted investment in infrastructure improves living standards and expand the productive capacity of our economy, which grows the revenue base for future state and Commonwealth budgets.

## STATE FUNDING

Infrastructure can be fully or partially funded by the Victorian Government by drawing on state revenue through the State Budget. The Victorian Government fully funds many infrastructure projects through the State Budget, including major projects like the \$11 billion Metro Tunnel.

## COMMONWEALTH FUNDING

The Commonwealth provides payments to state and local governments for some infrastructure projects. As the nation's fastest growing state and home to one in four Australians, paradoxically only eight percent of infrastructure funding currently flows to Victoria. The Victorian Government advocates for a fairer share of Commonwealth funding.

## PUBLIC SECTOR BORROWING

Prudent use of debt for major projects is an important source of finance particularly when the costs of borrowing are low. Many of the transformational projects that have shaped Victoria have been financed in part by debt. Ensuring the state maintains its triple-A credit rating is an important factor in keeping borrowing costs low.

## ASSET RECYCLING

The government uses asset recycling to invest in priority infrastructure projects. State assets are sold or leased and the proceeds are reinvested in infrastructure, effectively 'recycling' the value locked up in the existing asset. For instance, the \$9.7 billion long-term Port of Melbourne lease has allowed the government to invest in significant infrastructure projects, including level crossing removals, that will deliver benefits for decades to come.

## LOCAL COUNCILS

Local Councils fund much important community infrastructure such as children's services, libraries, sporting facilities and local roads through their rates and developer contributions.

## PRIVATE SECTOR CONTRIBUTIONS

The government works with the private sector by contracting them to design, build, finance and maintain infrastructure, through public private partnerships (PPPs). PPPs help to maximise value and share risks that arise from infrastructure projects.

Developers make significant contributions to the infrastructure required to service their developments through Infrastructure Contributions Plans and payment of Growth Areas Infrastructure Contributions. This is used to fund public transport and state community infrastructure such as schools, parks, ambulance and emergency services in growth corridors.

## VALUE CREATION AND CAPTURE

Value capture and creation aims to enhance the public value of government activity. Value creation helps to maximise the economic, social and environmental outcomes of a project, above and beyond the direct consequences of what government could achieve alone. Value capture harnesses the economic value created by government investments, activities and policies and helps to generate alternative revenue streams to offset the government's original investment.

# Victorian Infrastructure Plan framework

The framework provides the structure for the many priorities and future directions identified in the plan. The high-level vision and objectives set out the future we are striving to achieve. Five principles guide our decision-making on which investments and policies matter most. Nine sectors organise government priorities and future directions.

## Vision & Objectives

The future that Victorians deserve.



Our vision is to have world-class infrastructure that strengthens Victoria as a global economy, an equitable society and an environmental leader.

### 1. Create a job generating and inclusive economy.

### 2. Provide a sustainable environment.

### 3. Build thriving and resilient communities.

### 4. Establish an innovative and highly adaptable Victoria.

## Five Principles

Guiding government investment and policy priorities.



### 1. Maximise economic growth and job creation.

- › Infrastructure policy and investments are geared towards supporting long-term economic growth, opportunity and job creation.
- › Economic priorities are carefully balanced with social and environmental objectives.

### 2. Support and strengthen regional Victoria.

- › Infrastructure policy and priorities focus on balancing investment fairly between Melbourne, regional cities and rural areas.
- › Government priorities reflect the critical role regional Victoria plays in the long-term economic future of our state.

### 3. Support decision-making based on community need.

- › Policy and investment priorities draw on the breadth and depth of available evidence, and particularly the advice of Infrastructure Victoria.
- › The needs of local communities in their local context are carefully considered.
- › Infrastructure investment is leveraged to lift communities facing disadvantage.

### 4. Maximise the use of existing assets.

- › Existing asset use should be optimised prior to new asset investment. Particularly in established, regional and rural communities.
- › If the same outcomes can be achieved through policy change and demand management, these should be considered before new build options.

### 5. Make decisions today for future generations.

- › Infrastructure decisions are focused on long-term objectives over years and decades, outside the day-to-day cycle of politics and media.
- › New investments are subject to the same rigour and discipline as established budget processes, and are focused on responsible investment and long-term sustainability.



## Nine Sectors

The broad view taken of Victoria's infrastructure is represented by nine sectors that serve to organise government's priorities through this document.



### Transport

Establishing an integrated and multi-modal transport system. Investing in future transport technologies to meet the needs of Victorian commuters.



### Culture, sport and community

Maintaining our status as Australia's sporting and cultural capital by investing in cultural, sporting and recreational assets.



### Digital connectivity

Strengthening businesses, communities and government by expanding the ICT sector across metropolitan and regional Victoria.



### Education and training

Supporting the next generation of Victorians by improving education and training facilities.



### Energy

Ensuring a low cost, low emissions energy future for all Victorians by supporting renewable energy projects, and meeting our net zero emissions targets.



### Environment

Managing environmental and waste assets across the sector's regulatory framework to ensure we all enjoy our green spaces.



### Health and human services

Supporting the health of our citizens and communities by improving health and human services infrastructure.



### Justice and emergency services

Making sure we all feel safe in our communities by supporting our justice and emergency services.



### Water

Ensuring we all have access to secure water sources by addressing the ongoing impacts of population growth and climate.



## Planning



Our planning system underpins how we manage growth to deliver Victoria's future economic, social and environmental priorities. It integrates long-term land use and infrastructure planning across all sectors at a state, regional and local level.

Victoria faces complex challenges that demand strong leadership and a long-term outlook. We must make informed decisions on the best available evidence. We must also carefully weigh the benefits and the costs, manage the disruption of new projects and make sure that all Victorians benefit.

## Getting on with the job

Victoria is Australia's fastest growing state and we have growing needs to match. There is no time to waste in getting on with building the roads, railways, schools, hospitals, housing and other critical infrastructure that is needed. After a period of under-investment, the Victorian Government has committed to the most significant pipeline of infrastructure in Victoria's history. This pipeline will address current and future needs, while also providing certainty and confidence for our engineering, construction and manufacturing sectors involved in building new infrastructure.

Making decisions on the planning, funding and building of major infrastructure projects is complex and challenging. Final decisions have ramifications for end users, project partners, local communities and for all Victorian taxpayers.

Building new infrastructure creates unavoidable disruption for local residents, businesses and for road and rail users. At times, people will be inconvenienced. Every effort is made to limit disruption and to reduce the impacts.

With such a large pipeline of infrastructure projects, it's important that investment dollars and the project benefits flow through the Victorian economy to the greatest extent possible. Victorian Government procurement processes seek to maximise local content requirements so that Victorian businesses can create new local jobs. The new Victorian Jobs Partnership between government, industry and unions will look at ways to put Victoria's infrastructure spending to good use in achieving a range of different policy aims. These policy aims include: encouraging more women into construction and engineering roles, creating more apprenticeship, traineeship and cadet opportunities for young people, and giving disadvantaged Victorians the opportunity they deserve. The Victorian Jobs Partnership will usher in the next wave of industry policy reforms and our infrastructure spending and decisions will play a big role in this.

The next part of this document articulates the priorities and future directions in each of the nine sectors identified in this plan.



These policy aims include: encouraging more women into construction and engineering roles, creating more apprenticeship, traineeship and cadet opportunities for young people, and giving disadvantaged Victorians the opportunity they deserve.







## Chapter 2: Sector plans





The Victorian Infrastructure Plan is organised around nine critical sectors. Each sector plan outlines our vision, overarching priorities, projects, reforms and long-term policy directions for that sector.

## Reading the sector plans and priorities

| The nine sectors are:             | page |
|-----------------------------------|------|
| 1. Transport                      | 34   |
| 2. Culture, sport and community   | 46   |
| 3. Digital connectivity           | 56   |
| 4. Education and training         | 64   |
| 5. Energy                         | 76   |
| 6. Environment                    | 84   |
| 7. Health and human services      | 94   |
| 8. Justice and emergency services | 106  |
| 9. Water                          | 118  |

### Note

Where it is important to understand the government's overall response to a specific priority, some previous year investments that are currently being implemented are included here.

Investments are shown in calendar years for year one to five projects and reforms, to reflect the December 2016 timing of Infrastructure Victoria's 30-year Infrastructure Strategy. Year one to five projects and reforms will be reviewed annually. Timelines are indicative only and subject to change. Funding end dates are indicated in line with Victorian State Budgets, but some projects and reforms may be allocated further funding. This will be updated in future editions of the Victorian Infrastructure Plan.



# Transport





## Introduction

Getting from place to place reliably and safely is important to everyone.

Every minute spent sitting in traffic or standing on a platform is time that could be better spent. A well functioning transport network is fundamental to our quality of life and the strength of our economy.

Victoria is making record investments in road and rail projects that will get our cities, towns and regional areas moving. New and upgraded road and rail infrastructure will allow for greater frequency and reach of mass transit options as well as improving our freight capacity. Our ports and airports are being upgraded to increase their capacity. Active transport links are planned to get more people cycling and walking. All Victorians across the state will benefit in the years to come from the transport projects currently in the pipeline.

With our population expected to reach 10.1 million by 2051, we will need to continue investing in transport. But we must also be smarter with how we use the transport assets we already have. That means finding ways to do things differently, for instance through adopting sensor technologies to better manage traffic and improve bus frequencies to better meet community needs. Many ideas are being explored, so that as a community we get maximum value from our transport infrastructure.

### PRIORITIES OVERVIEW

Our transport system is undergoing major improvements to prepare us for a population of 10.1 million.

To deliver this, we're focusing on four priorities:

#### 1. Making the most of existing assets

Victoria's transport network covers every corner of the state. We're making the most of this system by upgrading infrastructure and maintaining existing assets.

#### 2. Building for the future

To meet projected growth across Victoria, and keep people and freight moving in the future, government is planning and delivering major projects to increase transport capacity.

#### 3. Connecting regional Victoria

Local and regional economies are important to the whole state's prosperity. To unlock the value of our regions, we're improving connections across Victoria and supporting more efficient movement of freight.

#### 4. Developing smarter transport solutions

In future, higher demand for different types of transport and changing travel patterns will affect how people use the transport system. Technology offers many potential transport benefits, such as efficiency, safety, capacity, sustainability and amenity.



# 1. Making the most of existing assets

Victoria's extensive transport network connects people to jobs and services across the state. To make sure the network continues to operate reliably and efficiently, Victoria must make the most of our existing transport infrastructure. To achieve this, the Victorian Government is improving how assets are maintained and managed, deploying technology to improve efficiency, reforming public transport systems to increase capacity, as well as upgrading arterial roads to reduce congestion. These investments will ensure value for money over the longer term and contribute towards a more liveable and more productive state.

## DID YOU KNOW



In 2016, Victoria's railway track infrastructure spanned 830 km in metropolitan areas and approximately 1,747 km in regional areas.

## IN THE FUTURE



Melbourne's transport system needs the capacity to cope with an additional 10.4 million trips a day by 2050 — up from the current figure of 12.5 million trips a day.

### Projects and reforms

|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$700 million</b> (including a \$350 million Commonwealth contribution) to widen and install traffic management infrastructure to the three remaining sections of the 38 kilometre M80 Ring Road upgrade — the Princes Freeway to Western Highway; Sydney Road to Edgars Road; and Plenty Road to Greensborough Highway. | Metro Melbourne   |              |              |              |              |
| 2. <b>\$218.1 million</b> to continue rolling out Melbourne's new trams, including 10 new high-capacity E-class trams and the associated infrastructure required. This brings the number of new E-class trams to 80 in total.  | Metro Melbourne   |              |              |              |              |
| 3. Complete existing urban road upgrades including the <b>\$1.3 billion</b> CityLink Tulla Widening, <b>\$110 million</b> Chandler Highway upgrade, <b>\$131.2 million</b> for stage 1 of the Yan Yean Road duplication and <b>\$139.4 million</b> for Plenty Road Stages 1 and 2.   | Metro Melbourne   |              |              |              |              |
| 4. Active Transport Victoria will work with VicRoads, the Transport Accident Commission, local councils and communities to prioritise and invest in infrastructure that keeps cyclists and pedestrians safe, including through the <b>\$100 million</b> Safer Cyclists and Pedestrians Fund.                                   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 5. <b>\$67 million</b> over the next four years to boost train and bus services across Melbourne.  | Metro Melbourne   |              |              |              |              |
| 6. <b>\$193.2 million</b> over the next four years to continue all night public transport on weekends.   | Metro Melbourne   |              |              |              |              |
| 7. <b>\$11.4 million</b> investment over the next four years to keep improving accessibility and safety across Victoria's public transport network, especially for those living with disability.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |



## Projects and reforms

|   | YR 1<br>2017                         | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|--------------------------------------|--------------|--------------|--------------|--------------|
| 8. <b>\$96.6 million</b> towards the upgrade of the next stage of Yan Yean Road. This is part of the state's commitment to improve and maintain metropolitan roads to ensure safe and free flowing corridors.   | Metro Melbourne                      |              |              |              |              |
| 9. <b>\$62.7 million</b> to deliver vital maintenance works on the West Gate Bridge. This activity will strengthen the bridge so that it can continue to cater for current and future demands of commuter and freight traffic.  | Metro Melbourne                      |              |              |              |              |
| 10. The <b>\$60.3 million</b> Streamlining Hoddle Street project includes a new intelligent transport system and smart mobility solutions package, improving safety and travel time information to allow users to better plan their journeys.                                       | Metro Melbourne                      |              |              |              |              |
| 11. <b>\$20.2 million</b> for a pipeline of road improvement projects to respond to key network priorities. The activities will range from minor intersection upgrades to significant arterial road duplications. This will address congestion and improve travel times and safety. | Metro Melbourne<br>Regional Victoria |              |              |              |              |
| 12. <b>\$82.9 million</b> towards metropolitan road restoration and road surface replacement, so that our roads can continue to provide safe conditions for motorists.  | Metro Melbourne                      |              |              |              |              |
| 13. <b>\$5 million</b> (including \$2.5 million Commonwealth funding) to develop a business case for further upgrades to the Monash Freeway and surrounding road network. This project has the potential to improve the capacity and performance of the Monash Freeway corridor.    | Metro Melbourne                      |              |              |              |              |

## FUTURE DIRECTIONS

- Develop and implement improved whole-of-life asset management approaches, including disaster, resilience and sustainability initiatives. This will enhance value for money, ensure transport infrastructure withstands system shocks and stressors, and continue to provide Victorians with a reliable premium service over the longer-term.
- Use planning and management tools such as the Principal Public Transport Network to make the most effective use of existing assets and maximise the movement of people and goods.
- Capture and analyse insights from major maintenance reform projects and partnerships to inform future policy directions for Victoria. For example, consider the effectiveness of innovative public private partnerships to procure the delivery of road upgrades and maintenance for the Western Suburbs Roads Package.
- Harness the benefits of major transformational projects in Victoria, such as the Metro Tunnel project which will create changed travel patterns and extra capacity in the transport system.
- Continue to strengthen cycling and walking networks across the state.



### CASE STUDY Streamlining Hoddle Street

Hoddle Street-Punt Road is one of Melbourne's busiest roads, with 90,000 vehicles traveling on this major north-south arterial every day.

To improve the movement of people and traffic along this route, the Victorian Government is investing \$60.3 million to upgrade four key intersections, including Swan Street, Brunton Avenue, Johnston Street and the Eastern Freeway.

The upgrade includes an Intelligent Transport System, which manages traffic flow and reduces congestion, and an innovative intersection design to improve efficiency by reducing delays caused by right turning traffic.

## 2. Building for the future

Our transport system must develop and adapt to the changing needs of the Victorian population and economy. As our population grows and demographics change, the demand on the transport system will change. We will need to think ahead and design our new transport infrastructure with an eye to the future. The Victorian Government is planning and building transport solutions that are needed now, but also cater for the needs of tomorrow.

### DID YOU KNOW



The Metro Tunnel will create nearly 7,000 jobs for Victorians, with 10% of the workforce being apprentices, trainees or engineering cadets.

#### Projects and reforms

|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$11 billion</b> to build the Metro Tunnel. This project will free up congestion in the city loop and improve reliability of services across Melbourne. Within the project, five new underground stations will be built as well as up to <b>\$1 billion</b> towards the installation of state-of-the-art signalling and communications systems. This will support high capacity trains and increase the frequency of services.   | Metro Melbourne   |              |              |              |              |
| 2. <b>\$5.5 billion</b> to deliver an alternative to the West Gate Bridge. The West Gate Tunnel project will provide quicker and safer journeys from the western suburbs, Geelong and Ballarat, and take thousands of trucks off residential streets. The project includes building Victoria's longest road tunnel, the Monash Freeway upgrade and access improvements to Webb Dock. The project will also provide over 14 kilometres of new and upgraded cycling and walking paths, including a new 2.5 kilometre veloway above Footscray Road. | Metro Melbourne   |              |              |              |              |
| 3. Ongoing investment in more trains, better bus services, new connections and station upgrades across the state, including <b>\$1.3 billion</b> in 2016/17 and <b>\$1.5 billion</b> in 2017/18 towards regional public transport.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 4. <b>\$6.9 billion</b> to remove Victoria's 50 most dangerous and congested level crossings including delivering the Caulfield to Dandenong project; as well as <b>\$1.4 billion</b> to continue station upgrades and network improvements.   | Metro Melbourne   |              |              |              |              |
| 5. Deliver a package of road upgrades and maintenance through the procurement of the Western Suburbs Road Package to cater for high population growth in Melbourne's west.   | Metro Melbourne   |              |              |              |              |



## Projects and reforms

|   | YR 1<br>2017    | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|-----------------|--------------|--------------|--------------|--------------|
| 6. <b>\$100 million</b> for planning and pre-construction work for the North East Link. This project will provide an essential connection between Melbourne's north and east and cater for the city's future growth. The new link will remove trucks from local streets, reduce congestion while improving freight and supply chain efficiency and create more than 5,000 new jobs.   | Metro Melbourne |              |              |              |              |
| 7. <b>\$596.7 million</b> for the Mernda Rail Extension project to help connect the area to jobs, services and the broader community. This initiative will build eight kilometres of new rail line, three state-of-the-art stations at Marymede, Mernda and Hawkstowe; and a coordinated new bus network.   | Metro Melbourne |              |              |              |              |
| 8. <b>\$300 million</b> to build the Mordialloc Bypass, which will create nine kilometres of new road between Springvale Road in Aspendale Gardens and the Dingley Bypass. This road link will reduce traffic congestion and improve safety in one of Melbourne's fastest growing areas.  | Metro Melbourne |              |              |              |              |
| 9. <b>\$187.4 million</b> to shift train stabling from Carrum to a new yard in Kananook. This is part of the Frankston line transformation to cater for the longer term stabling needs of the growth corridor.  | Metro Melbourne |              |              |              |              |
| 10. <b>\$84.8 million</b> towards the Network Transition Program, which will prepare the network to realise the full potential of the Metro Tunnel and the rollout of High Capacity Metro Trains. This will involve planning for track, power and signalling upgrades, platform extensions and additional stabling and maintenance facilities. Planning work will also commence for other major rail infrastructure projects. | Metro Melbourne |              |              |              |              |
| 11. \$30 million funding to develop a business case for a new airport rail link in partnership with the Commonwealth and private sector.  | Metro Melbourne |              |              |              |              |

## FUTURE DIRECTIONS

- › Invest in improved transport modelling to facilitate planning, help target investment to ensure value for money. To meet this priority, Transport For Victoria is preparing a 10-year plan to consider the relative costs and benefits of individual projects, as well as the effects of emerging technologies on transport networks.
- › Improve frequency and reliability of public transport through state-of-the-art technologies and new high capacity signalling and telecommunications systems. This will mean more trains and less travel time for passengers.
- › Protect options for future air and sea ports and intermodal terminals through appropriate planning frameworks, including Avalon Airport and a potential south-east airport.





## CASE STUDY

### Metro Tunnel

Major work is underway on the \$11 billion Metro Tunnel, which is Australia's biggest public transport project. Metro Tunnel will boost our rail network's peak capacity by 39,000 in each two hour peak period.

Daily passenger use of City Loop stations is expected to rise from 580,000 in 2011 to 1.1 million by 2031. Taking some of Melbourne's busiest train lines through a new tunnel under the city will free up space in our City Loop so that more trains can run into and out of the city. This will bring major improvements in Melbourne's rail network efficiency and reliability, especially for the train lines serving Melbourne's growth areas in the north, west and south-east. The project is a once in a generation change that will enhance Melbourne's status as a highly liveable and well connected city.

The two 9 kilometre rail tunnels built under Melbourne will strengthen connectivity across the city, and accommodate five new underground stations at CBD North, CBD South, Arden, Parkville and Domain. The new stations will feature international-style passenger safety screen doors and will give heavy rail access to a new catchment of 200,000 workers, students and residents. Platform length is designed to service the 20 per cent larger High Capacity Metro Trains that will go into service on the new Sunbury to Cranbourne/Pakenham line being created by the Metro

Tunnel project. The Victorian Government is currently procuring 65 of these new trains, which carry 75 per cent more passengers than current models.

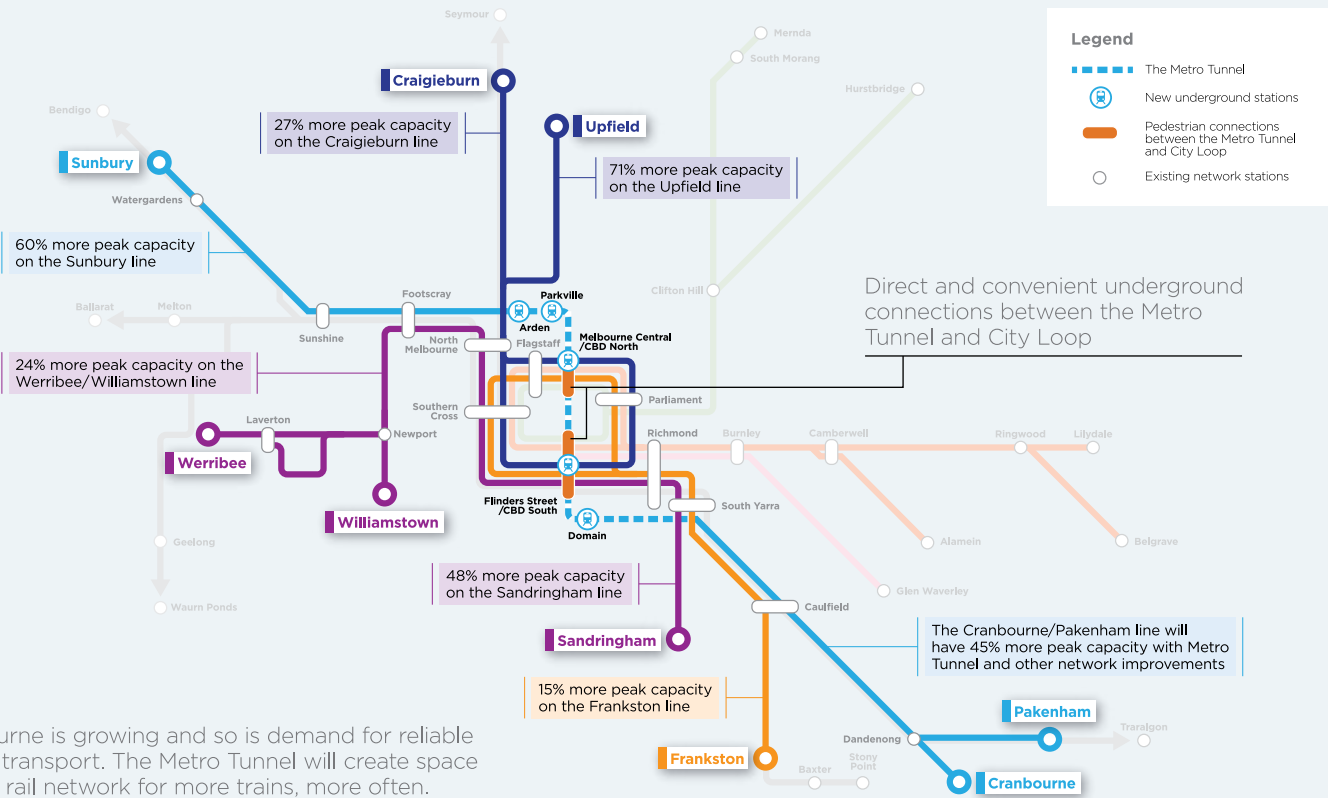
The Metro Tunnel project will create nearly 7,000 jobs for Victorians, including 500 apprentices, trainees and engineering cadets working as part of the tunnels and stations package.

The project includes procurement of around \$1 billion worth of signalling and communications systems, to be installed on the corridor. This will allow the High Capacity Metro Trains to operate safely, efficiently, and to deliver much needed capacity and frequency improvements. A world-leading Centre of Excellence will be established in Victoria, supporting local skills development and jobs creation in the rapidly evolving rail signalling and communications industries.

Overall, the Metro Tunnel is expected to benefit all Victorians by making it easier to move in and around the city and enhancing access to jobs, education, health and culture around the metro area.



# Metro Tunnel — project overview









### 3. Connecting regional Victoria

With regional Victoria's population expected to almost double by 2051, we are investing in transport infrastructure and services to give communities in regional Victoria the quality service they deserve. This includes the Regional Rail Revival Program, a once in a generation investment to improve infrastructure and services by upgrading tracks, stations and signalling to run more trains, more often, more reliably. The \$1.5 billion program, jointly funded with the Commonwealth, includes a substantial series of projects that will make it easier for people to access jobs, education and services and connect goods produced in Victoria with domestic and international markets.

#### DID YOU KNOW

In 2014, 360 million tonnes of freight was moved around Victoria via our road and rail networks.

#### Projects and reforms

|   | YR 1<br>2017   | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|--|--------------|--------------|--------------|--------------|
| 1. <b>\$530.6 million</b> to maintain and upgrade roads and bridges and undertake planning work towards future road improvements to cater for regional growth, as well as improving travel times and safety on Victoria's roads.  | Regional Victoria  |              |              |              |              |
| 2. A roads upgrade package for South Western Victoria to improve safety and increase capacity along important routes. This includes <b>\$65.8 million</b> for the South Western Victoria Road Improvement Program to improve key roads like the Great Ocean Road, and <b>\$37.2 million</b> for a Narrow Seal Roads Program to widen 40 kilometres of arterial roads and support two-way traffic. | Regional Victoria  |              |              |              |              |
| 3. <b>\$50 million</b> (including \$25 million Commonwealth funding) to realign the South Gippsland Highway through Koonwarra, including additional shoulder sealing and installation of targeted safety barriers between Meeniyan and Yarram.  | Regional Victoria  |              |              |              |              |
| 4. Complete existing regional road upgrades including <b>\$672 million</b> Western Highway (Ballarat to Stawell), <b>\$106.7 million</b> Drysdale Bypass and <b>\$280 million</b> (includes Commonwealth and New South Wales Government funding) for Echuca-Moama Bridge.   | Regional Victoria  |              |              |              |              |
| 5. <b>\$435 million</b> for Gippsland Line upgrade; plus <b>\$95 million</b> to replace Avon River Bridge.  | Regional Victoria  |              |              |              |              |
| 6. <b>\$316.4 million</b> for major periodic maintenance, maintaining and repairing tracks across the regional rail system, as well as <b>\$12.5 million</b> to upgrade and replace the V/Line classic fleet trains and carriages.  | Regional Victoria  |              |              |              |              |



## Projects and reforms

|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|-------------------|--------------|--------------|--------------|--------------|
| 7. <b>\$311.1 million</b> to redesign VLocity carriages and build 39 new carriages for long-haul services, including to Shepparton, building on the 48 already ordered.   | Regional Victoria |              |              |              |              |
| 8. <b>\$110 million</b> to fund the first stage of a new Surf Coast Rail project to prepare the corridor for duplication between South Geelong and Warrnambool and reserve land for a future line to Torquay.                                       | Regional Victoria |              |              |              |              |
| 9. <b>\$43.5 million</b> to upgrade the Shepparton line with new stabling and an extra passing loop to support running of more trains from 2020.  | Regional Victoria |              |              |              |              |
| 10. <b>\$518 million</b> to upgrade the Ballarat line to Melton, to increase the reliability of services for the Ballarat region and Melbourne's outer west.  | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 11. <b>\$114 million</b> to upgrade the Warrnambool Line to run more services and <b>\$91 million</b> to enhance the Bendigo to Echuca line, including faster trains.   | Regional Victoria |              |              |              |              |
| 12. Delivery of the <b>\$440 million</b> Murray Basin Rail Project funded in partnership with the Commonwealth to provide better rail freight access and services in the Murray Basin area at reduced costs.  | Regional Victoria |              |              |              |              |
| 13. Continued collaboration with the Commonwealth on the delivery of the Inland Rail project to upgrade freight lines between Melbourne and Albury as part of the high capacity inland rail route being constructed between Melbourne and Brisbane. | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |

## FUTURE DIRECTIONS

- Implement the Regional Network Development Plan's medium and long-term priorities to modernise with more track, trains and services, and better facilities.
- Consult communities to identify future bus service needs, including planning for new routes and addressing links with other public transport modes.
- Improve service delivery to regional areas, including delivering a modern commuter-style service for growth areas like Geelong, Bendigo, Ballarat, Seymour and Traralgon.
- Create freight and passenger transport connections between Melbourne and regional Victoria, interstate and overseas to facilitate growth and competitiveness.
- Undertake strategic planning to identify and prioritise future freight investment, including consideration of a second container port, and potential development of Western and Beveridge Interstate Freight Terminals.
- Adopt innovative systems and measurement to improve freight management and logistics efficiencies. Consider new technologies, wider use of High Productivity Freight Vehicles, off peak freight deliveries and working with stakeholders to consolidate last mile access.



### CASE STUDY

#### Connecting Regional Victoria — Victoria's regional network development plan

The Victorian Government has launched Connecting Regional Victoria, the first ever long-term plan to develop and improve public transport in regional Victoria.

The plan was developed following one of the most extensive public consultation processes ever undertaken in regional Victoria, with nearly 40 workshops held right across the state, gathering more than 15,000 individual pieces of feedback.

Under the plan, regional Victorians will get more trains, better bus services, new connections and upgraded stations to get where they need to go quickly, reliably and safely.

The long-term goal of the plan is to deliver trains at least every 20 minutes in peak hours and every 40 minutes off-peak to major regional centres, as well as five services, five days a week on the outer regional lines of Warrnambool, Bairnsdale, Albury-Wodonga, Echuca, Swan Hill and Shepparton.



## 4. Developing smarter transport solutions

Advancements in technology present a wide range of opportunities to improve the efficiency of our transport system. Developing smarter transport solutions that are driven by real-time data, sensor and automation technology is just as important as the physical building of new infrastructure. This trend of technology-driven solutions will continue as technology becomes more embedded within the network and as the demand for transport services increases. The Victorian Government is pursuing a range of state-of-the-art technology systems to improve efficiency, safety, sustainability and amenity for transport users.

### DID YOU KNOW



Use of car and ride sharing services is increasing, more people are choosing not to drive and an increasing number of people are choosing not to own a car.

### IN THE FUTURE



By the early 2030s, smarter vehicles are expected to have an impact on how Victorians travel.

#### Projects and reforms

|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$35.8 million</b> for the Optimising Transport Network Performance and Productivity Program. This includes the implementation of Intelligent Transport Systems and intersection upgrades to improve traffic flow and reduce congestion on Melbourne's key tram and bus routes, and freeways. The program will also make intersection improvements to regional roads.   | Metro Melbourne   |              |              |              |              |
| 2. <b>\$15 million</b> towards Keeping Melbourne Moving by funding a Network Impact Management Plan to better understand and manage disruption from significant transport upgrades and enable provision of targeted, tailored and timely information.   | Metro Melbourne   |              |              |              |              |
| 3. Support the upgrade and roll-out of advanced traffic management systems on key parts of the network to improve the capacity of Melbourne's freeway network. Major projects include the M80 Ring Road upgrade, West Gate Tunnel, Monash Freeway-M1 Corridor and CityLink-Tulla Widening project.  | Metro Melbourne   |              |              |              |              |
| 4. Introduction of Australia's first fully open and competitive commercial passenger vehicle regulatory model, which will put passengers first by bringing taxi, hire car and ride share services under an aligned set of rules.  | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 5. Supporting Melbourne University's ambitious and unique hi-tech Melbourne National Connected Multimodal Test Bed, which is studying public transport, traffic and people movements through the use of thousands of sensors and connected infrastructure in a five square kilometre area of central Melbourne. The study will provide unprecedented insights to feed in to planning transport systems of the future. | Metro Melbourne   |              |              |              |              |

## FUTURE DIRECTIONS

- › Build on our use of new technologies and information systems in order to improve network efficiencies and safety in the future.
- › Ongoing activities to remove or minimise barriers that might prevent technology adoption.
- › Continue to work with other jurisdictions to understand barriers to increased vehicle automation in a variety of scenarios. This includes working with manufacturers and technology companies to identify and mitigate potential in-country barriers, and national bodies to develop consistent rules for testing automated vehicle technology on Australia's roads.
- › Monitor developments in technology and how they can be applied to transport infrastructure.
- › Invest in support for the development of new transport technology sectors in Victoria.



## CASE STUDY

### Highly automated vehicle trials

Self-driving vehicles will ease congestion, improve road safety and offer greater mobility to a wider range of people than ever before. As a result, these self-driving vehicles will provide significant economic, environmental and social benefits, including improving social inclusion.

To reach this goal, the Victorian Government is working with the Australian Road Research Board in conjunction with La Trobe University and ConnectEast to test cars with driver-assistance technology on the EastLink motorway.

The 18-month trial will test technological compatibility with current infrastructure and assess the use of semi-autonomous cars with safety features, such as adaptive cruise control, lane keep assist and auto braking. The Eastlink trial has received \$578,000 funding from VicRoads' Intelligent Transport System Grants Program.





Culture, sport  
and community





## Introduction

### Victorians are passionate about sport and the arts.

Every day, Victorian communities pursue a wide range of sporting and cultural activities. Participation in these activities benefits our health and wellbeing, and makes our cities more liveable, our communities more inclusive and our economy stronger.

Our status as Australia's sporting and cultural capital is a point of pride for Victorians. Many dedicated precincts across the state host exhibitions and events of national and international significance. Our sporting and cultural calendar includes: the Australian Open; the Formula One Grand Prix; the Melbourne Cup; the Phillip Island Moto GP; the AFL Grand Final; the Boxing Day Test; the Melbourne Festival; the Melbourne International Comedy Festival; the Stawell Gift; White Night in Melbourne and regional Victoria; the Melbourne Winter Masterpieces series held at the National Gallery of Victoria and the Australian Centre for the Moving Image.

These and hundreds of other events across the state showcase our state's incredible talent and attracts artists, performers and athletes from all over the world. Victoria's creative industries, sport and active recreation respectively contribute \$22.7 billion and \$8.5 billion annually to Victoria's economy.

No matter how big or small the activity, the infrastructure and facilities that make them all possible must be planned, built and maintained. This includes the provision of appropriate female friendly facilities to address gender barriers and encourage female participation. Government investment, private development and community involvement are all important to making our sporting and cultural landscape as vibrant and accessible as possible. How we best make use of our sporting, cultural and community assets has an enormous impact on the quality of life for all Victorians.

## PRIORITIES OVERVIEW

Our vision is to give Victorians unmatched opportunities to access cultural, sporting and recreational experiences.

To deliver this, we're focusing on four priorities:

### 1. Maintaining Victoria's competitive edge

Victoria is the cultural and sporting heart of Australia. Growing our reputation nationally and internationally will require continuous improvement to the infrastructure that makes our world-class events possible.

### 2. Planning for a growing population

Many Victorian locations need added land or space for new sporting and cultural facilities. Smart use of current facilities and exploring opportunities to refurbish, integrate and share what we have is key to equitable access.

### 3. Growing participation

Targeted investments in new and existing assets gives people the opportunity to actively participate, creating healthier and more inclusive communities.

### 4. Maintaining our current facilities

Victoria has significant cultural, sporting, recreation and community assets. Maintaining these will ensure both current and future generations can benefit from them.



# 1. Maintaining Victoria's competitive edge

Victoria is renowned as Australia's sporting and cultural capital, with a packed events calendar that is the envy of the nation. But competition from elsewhere means we can't afford to stand still. The Victorian Government is undertaking long-term planning to expand and renew our arts and sporting precincts. This investment will protect our visitor economy and enhance our reputation as one of the most liveable places in the world.

## DID YOU KNOW

In 2016, there were around 5.6 million visitors to Victoria, both domestic and international.

## DID YOU KNOW

As the leading sporting destination, Melbourne is the only city in the world that has staged an Olympic Games, Commonwealth Games, as well as being host city to a Grand Prix and grand slam tennis tournament.

### Projects and reforms





## FUTURE DIRECTIONS

- › Work with major institutions and peak bodies to continue to build Victoria's sporting and cultural calendar and maximise the use of our significant event facilities throughout the year.
- › Use the Creative State Strategy, Active Victoria, Major Stadia Strategy, State Facilities Strategy and High Performance Strategy to guide investment in major renewal works to attract and retain events.
- › Consider community benefits and economic returns in decision-making to expand or renew existing assets.



## CASE STUDY

### Melbourne Recital Centre

Opened in 2009, the Melbourne Recital Centre achieved a new benchmark in music presentation spaces, with a highly sophisticated 1,000 seat auditorium (the Elisabeth Murdoch Hall) and the unique 150-seat performance and event space (the Salon). This new venue complements the already impressive suite of facilities in the Melbourne Arts Precinct in Southbank, cementing Melbourne's reputation as Australia's leading cultural destination.

The investment in this highly specialised facility has yielded an impressive track record of performances by international musicians, and now welcomes almost 190,000 people to over 500 concerts a year. The creation of the Melbourne Recital Centre enables Melbourne ensembles and solo musicians to expand their programs and the Centre is an active presenter of Victorian artists, nurturing the state's artistic talent. It also provides a high-quality, appropriately scaled venue for national companies such as the Australian Chamber Orchestra, Australian String Quartet and Musica Viva Australia, further developing and growing the audiences for music in Victoria.



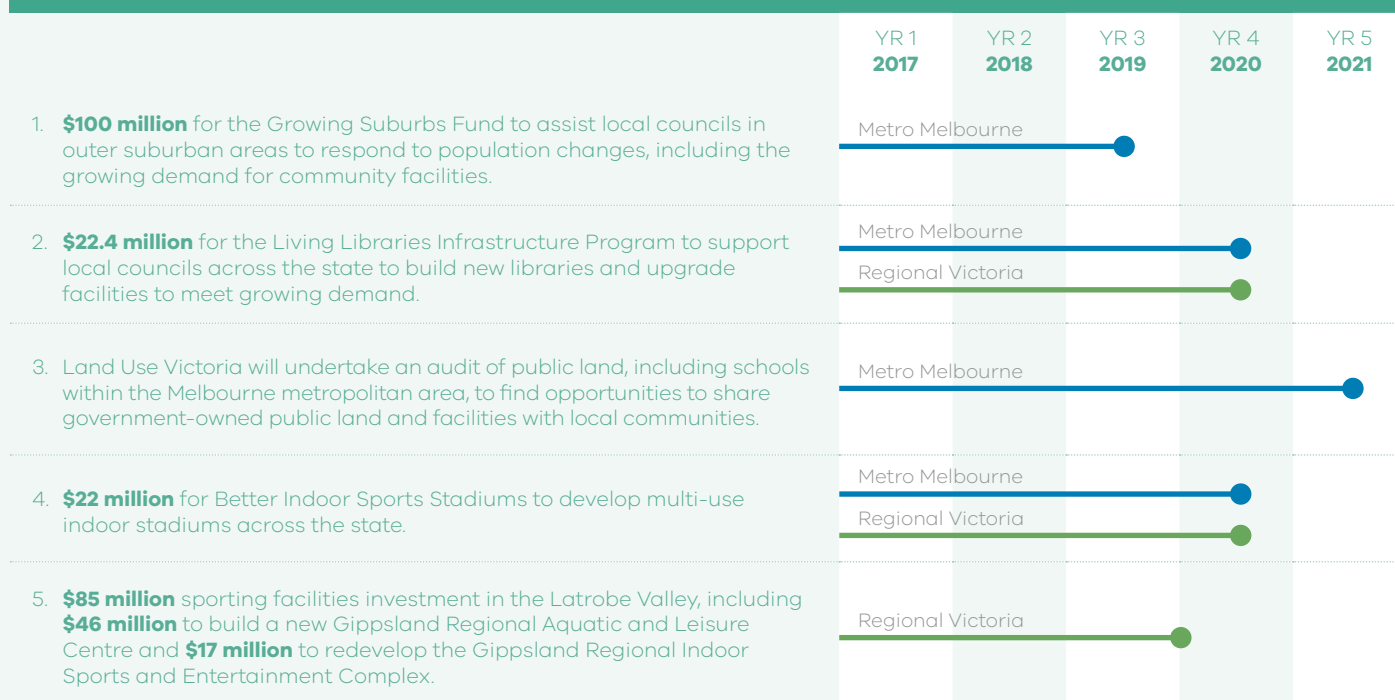
## 2. Planning for a growing population

Demand for cultural, sporting and recreation spaces is increasing with population growth. Every Victorian should have the opportunity to participate and access activity spaces no matter where they live. Participation improves health and wellbeing, encourages social cohesion and creates jobs. To meet the diverse needs of metropolitan and regional areas, the Victorian Government is delivering new and improved facilities in consultation with local communities.

### DID YOU KNOW

If all Victorians met the recommended target for physical activity, there would be 4,000 fewer preventable deaths each year and a \$3.35 billion increase in productivity and avoided health care costs.

#### Projects and reforms





## Projects and reforms

|  | YR 1<br>2017                         | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|--------------------------------------|--------------|--------------|--------------|--------------|
| 6. <b>\$9.6 million</b> to build 64 competition compliant netball courts in inner-Melbourne, ensuring nobody is turned away from playing the game they love. | Metro Melbourne                      |              |              |              |              |
| 7. <b>\$120 million</b> for the Community Sport Infrastructure Fund to support planning and improvement works for community sport and recreation facilities. | Metro Melbourne<br>Regional Victoria |              |              |              |              |

## FUTURE DIRECTIONS

- › Balanced use of relocatable infrastructure (for example, portable buildings, pop-up community halls) to meet the immediate needs of growing communities in the short-term, while investments are made in permanent infrastructure for the future.
- › Plan for the long-term growth of Victorian cities and communities, and continue to ensure that all Victorians are able to access sport and cultural facilities.



### CASE STUDY

#### Community Bank Stadium in Diamond Creek

Opened in 2012, the Community Bank Stadium is situated on land between two schools in Diamond Creek and provides a home for basketball, netball and gymnastics organisations, as well as a range of school and community activities. It incorporates auditorium space, three multipurpose sports courts, and office and community meeting spaces. The stadium is used by Diamond Valley College (800 Year 7–12 students) and Diamond Creek East Primary School (400 students), as well as by Jets Gymnastics, Diamond Creek Force Netball Association, Diamond Valley Basketball Association and the Diamond Creek Basketball Club.

The \$10.5 million stadium was jointly funded by the Nillumbik Shire Council and the Commonwealth Government, with a \$1 million sponsorship from Bendigo Bank and a \$2.5 million contribution from the Victorian Government through Sport and Recreation Victoria.





### 3. Growing participation

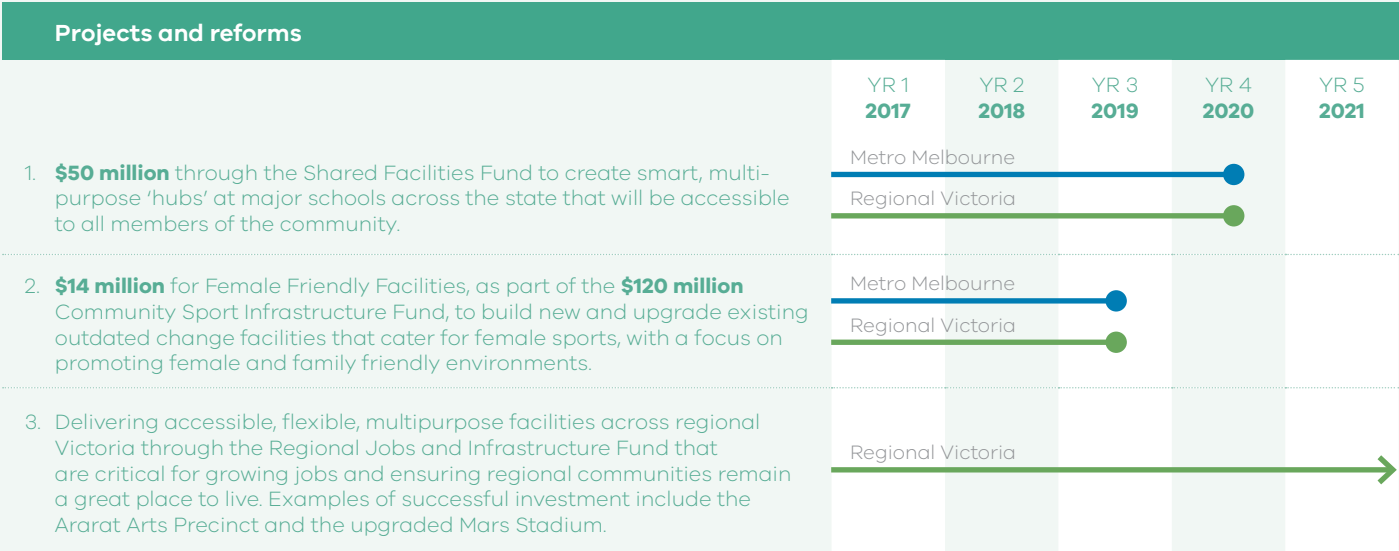
As our population grows in size and diversity, new cultural and sporting pursuits are emerging. Many single-purpose facilities are no longer suitable. These need upgrading or redesign to accommodate a broader range of activities. Increasing participation in cultural, sporting and recreation activities improves health and wellbeing and connects local communities. The Victorian Government is committed to working with councils, sporting clubs and community groups so that all Victorians can participate.

#### DID YOU KNOW

Fewer Victorian females participate in sport or active recreation than their male counterparts. Rates are even lower for older women and women from culturally diverse backgrounds. From age 5-14, 67% boys play organised sport, compared to 54% of girls. In contrast to 44% of men, only 38.6% of women undertake enough physical activity.

#### DID YOU KNOW

Almost 80% of all Victorians aged over 15 participate in some form of sport or active recreation and 89% attend a cultural event at least once a year.

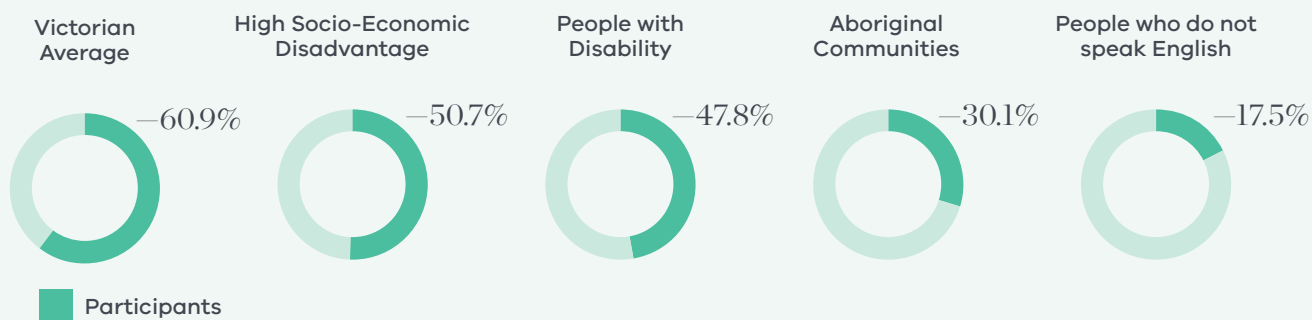


## FUTURE DIRECTIONS

- › Work in close partnership with local governments, sporting organisations and venue operators across the state to ensure we plan and make investments in modern, flexible and fit for purpose facilities that meet the needs of the community into the future.
- › Co-locate facilities in strategically positioned precincts and hubs across the state to maximise their value, impact and effectiveness.
- › In line with the Active Victoria strategic framework, develop a community and recreation facilities strategy to guide investment decisions. Apply a strong focus to making the most of our facilities wherever possible, through early, integrated planning and smart, innovative design.
- › Continue to support the provision of community sport and recreation infrastructure.



Figure 2: Differences in sport and active recreation participation rates between various cohorts



Source: Valuing Sport and Recreation: A framework for the future, 2016

## 4. Maintaining our current facilities

Victoria has significant cultural, sporting, recreation and community assets. These let people express themselves creatively, engage with their community and stay healthy and active. Current and future generations should have access to upgraded or new facilities. The Victorian Government is committed to upgrading these assets across the state. These initiatives will encourage community participation and physical activity, provide amateur to professional pathways, and showcase our sporting and creative talent.

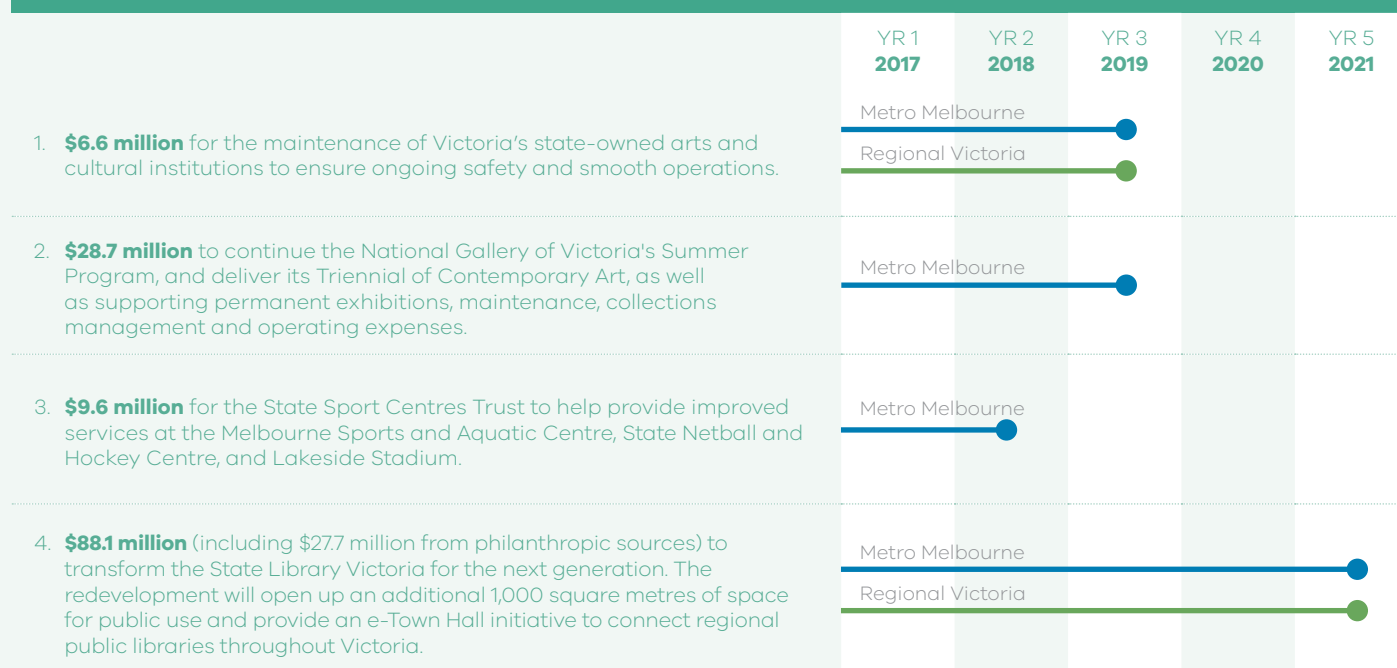
### DID YOU KNOW

Our State Cultural Collection, which includes Ned Kelly's armour and Phar Lap, is worth more than \$5 billion.

### DID YOU KNOW

There are more than 60 major cultural and civic, and state level sporting facilities in Victoria. These include galleries, stadiums, theatres, civic squares and heritage sites.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Evolve our asset management frameworks to better respond to changing demands on Victorian facilities.
- › Work with the State Sports Association, trusts, commercial operators and all levels of government to ensure appropriate planning and investment occurs into the future. This will ensure facilities are maintained at a level that supports professional athletes and amateur participants.
- › Progress the planning associated with priorities identified in the Major Stadia Strategy, State Facilities Strategy and the Community and Recreation Facilities Strategy.



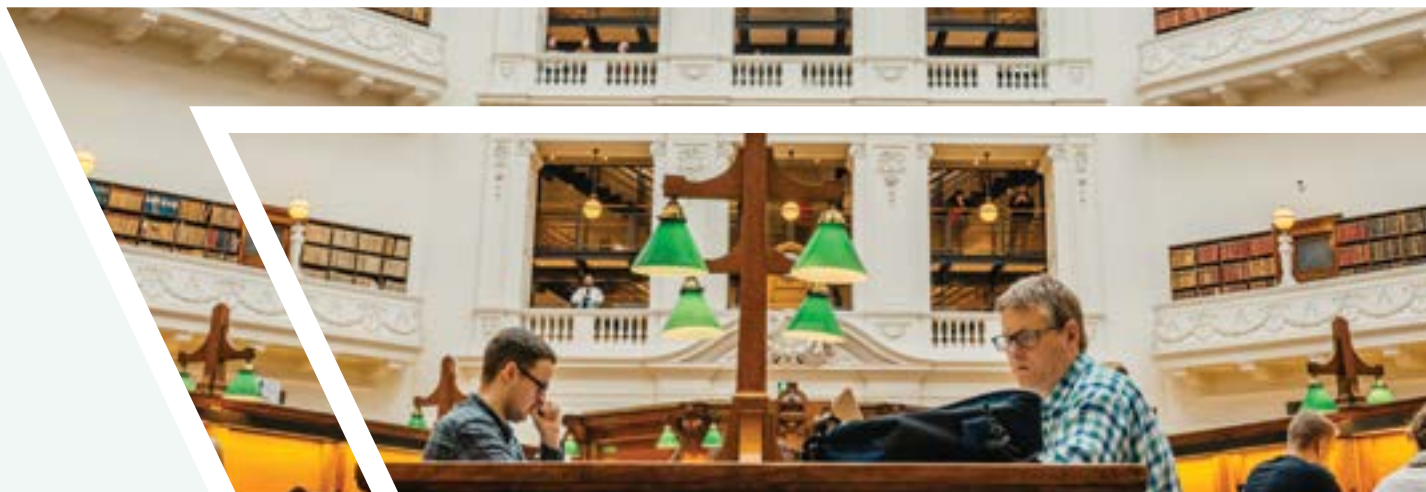
## CASE STUDY

### Transforming State Library Victoria

The State Library Victoria is Australia's oldest and most loved public library. Each year it welcomes over 2 million visitors on-site and over 4 million online. The Victorian Government has committed to the State Library's Vision 2020 redevelopment – a transformation that will ensure more students, families, researchers, emerging entrepreneurs, creators and tourists can enjoy its wealth of resources. At the heart of Vision 2020 is the refurbishment of heritage spaces, the creation of innovative new spaces for children and teenagers, and the reinvention of the library's facilities and services to support Victoria's burgeoning creative and innovation economies.

The \$88.1 million project represents long-term renewal and will provide many more years of leading service from this iconic Victorian institution. It will create Start Space, Victoria's first centre for early stage entrepreneurs, an e-Town Hall, allowing the library to stream programs, meetings and events to local libraries across Victoria and from sites around the world. The project will return 40 per cent more of the building to public use and substantially increase access to the site by reopening the Russell Street entrance and opening a universally accessible entrance on La Trobe Street. The Ian Potter Queen's Hall, the library's oldest reading room, will be restored and reopened to the public for the first time in almost 15 years. A new world-class exhibition gallery — The Victoria Gallery — will be created to showcase the library's extraordinary and treasured collections and provide a new tourism destination for Melbourne.

The redevelopment is being funded through a partnership model with the Victorian Government committing \$2 for every \$1 raised through philanthropic donations.







Digital  
connectivity



## Introduction

How Victorians go about their daily lives and conduct business is changing rapidly because of digital technologies.

Many of our interactions and transactions now occur via our mobile phones or online. The scope and scale of what is possible using web technology is vast and is growing larger every day. Capitalising on digital connectivity presents many opportunities for all Victorians, particularly those in regional and rural Victoria.

Internet access is now considered an essential service. Our lives are all made easier by the digital technology and networks at our fingertips.

For businesses, digital capabilities are crucial for accessing new markets, developing new products and services, as well as creating and adapting to disruptive business models. The continuous evolution of technologies such as the Internet of Things, financial technology, robotics, data processing and analytics, computerisation and automation will have profound impacts on the economy but also create enormous opportunities.

The Victorian Government plays an important role in supporting access to quality digital networks across all of Victoria, as well as promoting technology use across industries and delivering more government services online. This means working with private communications providers and the Commonwealth Government to support and expand the services that Victorian individuals and businesses need – where and when they need them.

Infrastructure Victoria identified digital connectivity as the common link across its 30-year Infrastructure Strategy and of particular importance to regional and rural Victoria. This dedicated section recognises and responds to that need.

### PRIORITIES OVERVIEW

To support access to fast and reliable internet and mobile connectivity we're focusing on three priorities:

#### 1. Improving digital access across Victoria

Fast and reliable communication services are critical to continued growth in regional Victoria and keeping people connected. Each of the Regional Partnerships identified improved digital connectivity as critical in order to support communities that are globally competitive and attractive for new businesses and residents.

#### 2. Supporting use of digital technologies

Some of the most significant advancements in infrastructure use will be driven by innovation in technology. The transport sector in particular will be transformed by advanced traffic management systems and driverless vehicles.

#### 3. Transforming state assets

Technology will play a key role in better managing demand on our infrastructure and improving how we use them. Identifying potential blockages and relieving pressure points in real-time is now possible.

# 1. Improving digital access across Victoria

Digital connectivity is critical in metropolitan and regional Victoria, for households and businesses alike. The Victorian Government is committed to improving digital access by connecting regional communities and supporting enhanced digital services across the state. With initiatives including the \$45 million Connecting Regional Communities Program, the government is ensuring all Victorians are connected.

## DID YOU KNOW

It is estimated that telecommunications infrastructure will contribute \$12.6 billion to the Victorian economy by 2031, more than double what it contributed in 2011.

## DID YOU KNOW

The latest standard of mobile broadband technology (5G) is now planned for global release. It will deliver vastly faster connections to the internet and underpin future technologies.

### Projects and reforms

|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$44 million</b> to address mobile blackspots by building and upgrading mobile base stations across Victoria. This project is in partnership with the Commonwealth Government and mobile carriers.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 2. <b>\$25 million</b> to encourage the development of innovative broadband market solutions in regional Victoria. This project will support enhanced broadband demonstration projects and the roll-out of public Wi-Fi.   | Regional Victoria |              |              |              |              |
|  |                   |              |              |              |              |
| 3. <b>\$68 million</b> to provide reliable access to digital services in the classroom that are essential to teaching and learning and an additional <b>\$16.4 million</b> to improve bandwidth and digital connectivity for students in rural and regional Victoria.        | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 4. <b>\$18 million</b> to fund improvements to mobile connectivity for commuters along the Geelong, Ballarat, Bendigo, Traralgon and Seymour rail lines. This is being delivered through an innovative partnership with mobile carriers and leveraging state infrastructure. | Regional Victoria |              |              |              |              |
|  |                   |              |              |              |              |
| 5. <b>\$1 million</b> to improve the ability of the Victorian Government to use its own telecommunications infrastructure in partnership with the private sector, to improve coverage and competition in digital connectivity.   | Regional Victoria |              |              |              |              |
|  |                   |              |              |              |              |



## FUTURE DIRECTIONS

- › Work with Regional Partnerships to identify priority communications infrastructure gaps and strategic responses.
- › Develop data sources on regional broadband demand, accessible services, and existing infrastructure to assist evidence based policy development and commercial investment in regional digital infrastructure.
- › Delivering better planning and regulation to encourage development of Melbourne's digital infrastructure, as identified in the Plan Melbourne 2017 Implementation Plan, preparing Victoria for emerging technologies (such as 5G).
- › Upgrade telecommunications on Melbourne's train network to 4G technology through a market-led initiative.



## CASE STUDY

### Regional Rail Connectivity Project

The \$18 million Regional Rail Connectivity project will significantly improve mobile coverage and connectivity for commuters along the Geelong, Ballarat, Bendigo, Traralgon and Seymour rail lines – which see more than 15.5 million passenger trips annually.

As part of the solution Victoria will be the first state in Australia to implement in-train technology used to boost the signal from mobile towers outside the rail carriage to devices used inside.

Work has already begun to pilot the installation of mobile reception repeaters in VLocity trains, which is designed to boost in-train coverage from less than 50 per cent to almost full network coverage. If successful, the repeaters will be rolled out on the entire VLocity fleet in 2018.

Through an innovative partnership with leading mobile carriers, the government is leveraging Victoria's land assets and project delivery capability to enable construction of up to 69 new mobile stations, set to be completed in 2018.

The Regional Rail Connectivity project is expected to boost productivity for regional business commuters, delivering an estimated \$20 million to the Victorian economy.





## 2. Supporting use of digital technologies

The way Victorians communicate and conduct business is changing as new technologies emerge. This includes technologies such as artificial intelligence, autonomous vehicles and the Internet of Things. The Victorian Government is supporting the use of these new technologies in the private sector, as well as looking at how government service delivery can be improved for the benefit of all Victorians.

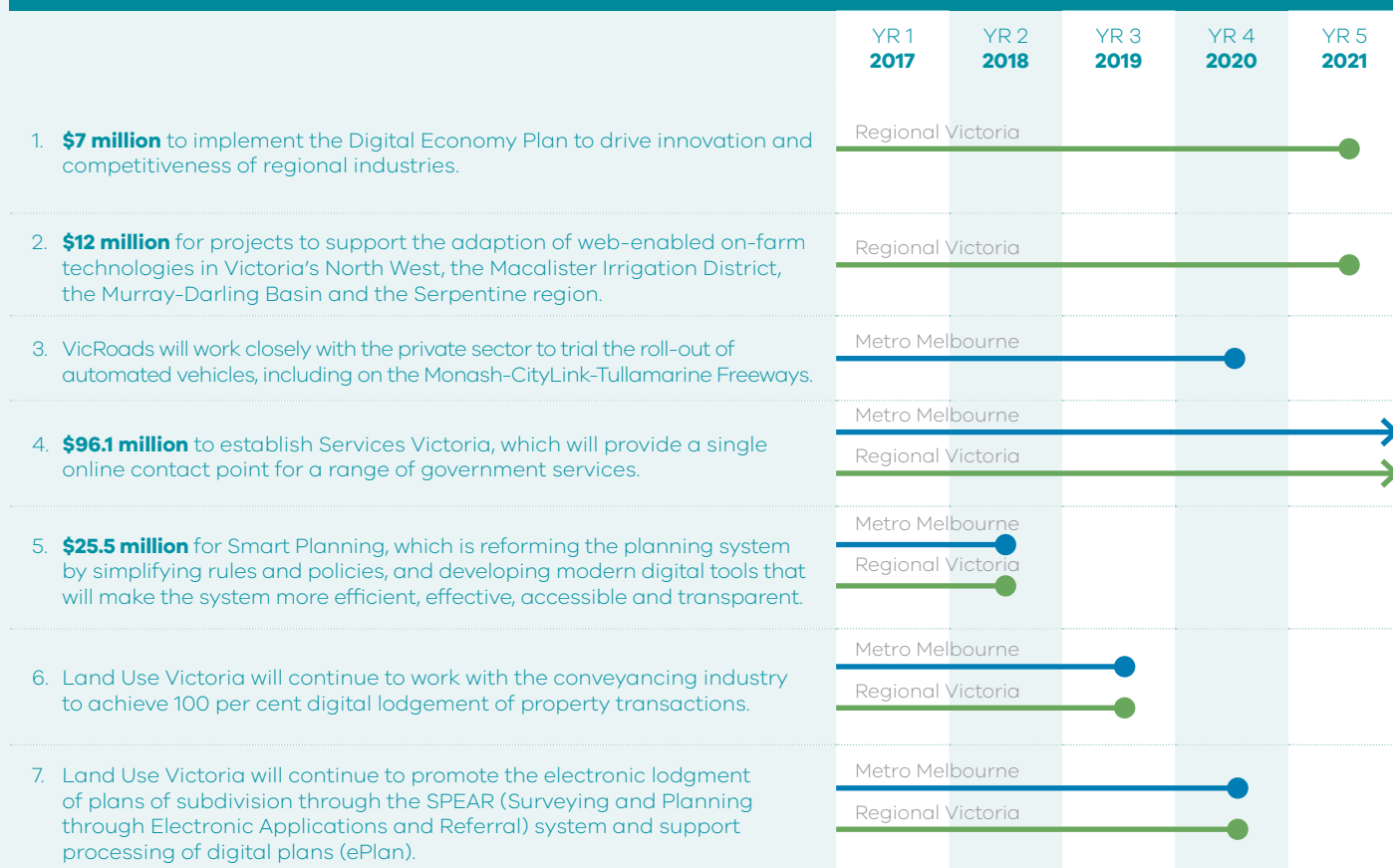
### DID YOU KNOW

Approximately 40% of all government transactions are still completed using traditional, non-digital channels.

### DID YOU KNOW

Victoria has the highest number of ICT graduates in Australia.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Strengthen Victoria's position as home to the largest cloud hub in Asia Pacific and leverage our competitive advantage as Australia's leading cloud specific and technology listed business centre.
- › Work with small businesses, start-ups and entrepreneurs to accelerate their development and meet infrastructure requirements.



## CASE STUDY

### Victoria's growing digital economy

Melbourne is Australia's technology hub and is home to more than half of Australia's top 20 technology companies. Victoria's ICT industry has over 8,000 companies, including many international businesses such as IBM, Microsoft and Intel.

Victorian ICT is a substantial industry, generating \$34 billion in revenue annually and employing around 91,300 people directly. It is internationally competitive, generating annual exports of around \$2.5 billion.

The ICT industry workforce underpins innovation and competitiveness across Victoria's economy and accounts for approximately 31 per cent of Australia's ICT workforce.



### 3. Transforming state assets

Rapidly increasing populations and technology usage brings new demands and challenges. To make the most of our assets, systems and infrastructure, the Victorian Government is identifying technology solutions in a range of areas, including traffic management, energy storage, emergency communications, data usage and cyber security. These technology solutions are being tested and implemented to transform the way we do things, delivering cost savings, greater efficiency and higher productivity across all sectors of the Victorian economy.

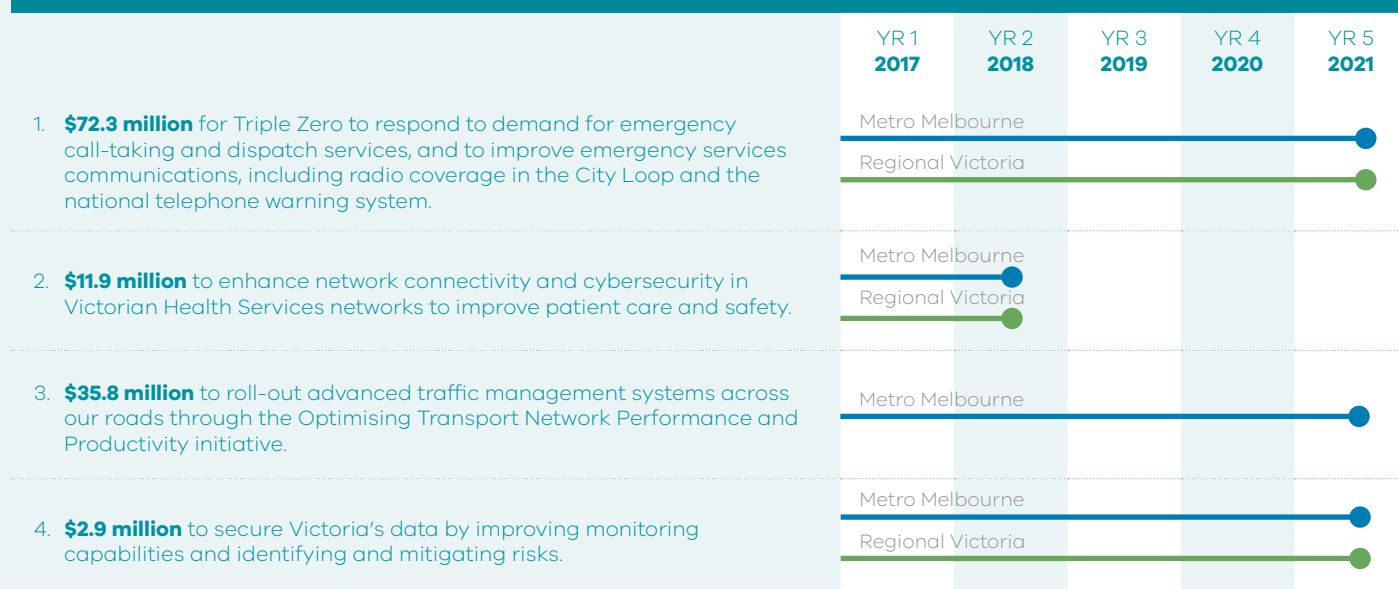
#### DID YOU KNOW

VicTrack owns around \$2.9 billion in signalling and communication infrastructure.

#### IN THE FUTURE

New technologies can be 'embedded' into infrastructure to transform how assets are used, managed and maintained, as well as how businesses and individuals extract value.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Work in partnership with the private sector to understand, develop, adopt and deploy a new range of digital capabilities for our workforce.
- › Optimise how assets are used into the future to meet the changing demands on infrastructure over the coming decades.
- › Partner with the community to generate innovative policy and planning solutions using open access government data.
- › Attract new cyber security companies and experts to keep Victoria at the forefront of the cybersecurity industry.



## CASE STUDY

### Managed motorways for the West Gate Freeway

VicRoads is investing in state-of-the-art technology, such as Intelligent Transport Systems that manage traffic flows and reduce congestion, as part of its plan to modernise the operation of Victoria's road network.

VicRoads undertook the \$25 million West Gate Freeway managed motorway project in early 2014 to help meet future demand. The project is part of the National Managed Motorways program.

The project saw upgrades made to the electronic freeway management system along the West Gate Freeway between the M80 Ring Road and Williamstown Road. The system upgrades included overhead lane use signs that adjust to suit conditions, closed circuit television cameras and upgrades of supporting telecommunication networks. The implementation of the Intelligent Transport System on the West Gate Freeway is helping to create a smarter road network, with better management of traffic flows, improved reliability and better safety.

VicRoads managed motorways expertise is internationally recognised and has supported delivery of projects in Australia, Hong Kong, Ireland, Malaysia, the Philippines, Singapore and the West Indies.







# Education and training



## Introduction

### Education enriches our understanding of the world and the communities where we live.

Learning has profound impacts on the lives of individuals and contributes to Victoria's economy through innovation, productivity and entrepreneurship.

Education provides children from different backgrounds with an avenue to contribute to and improve society. This life changing function, particularly through the early years, creates equal opportunities for all Victorians.

Investment in the early years sets our youngest Victorians up for a successful life and positive engagement with education. The government is supporting investment in early childhood facilities and creating better school connections by co-locating kinders on new school sites.

Victoria is the Education State. Our education system delivers strong results for children, students, families and industry alike. From birth a Victorian education provides children and students with the support, knowledge, capabilities and attributes they need to thrive throughout life, and builds the skills needed for our evolving global economy.

The government has invested more than \$5 billion towards the Education State, including Victoria's largest ever in education infrastructure — \$2.5 billion over the last three budgets. To meet growing need we are delivering 56 new schools and upgrading hundreds more, as well as funding construction of 25 new and upgraded early childhood facilities. We're also reopening and rebuilding TAFEs statewide.

TAFE gives all Victorians a chance to grow the skills they need for the job they want. Two reopened TAFEs are already embedded in the community, providing further education and housing state-of-the-art Tech Schools, childcare centres and community spaces.

The Victorian Government has also made significant investment to support inclusion and integrate schools with local communities. To ensure kids are learning in a first-rate environment, there is \$200 million more in maintenance funding. These investments will strengthen Victorian education outcomes.

Victorians are the best qualified students and workers in the nation. Embedding digital technology in learning environments is consolidating Victoria's competitive advantage in the knowledge industries that grow our economy.

Victoria is home to two of Australia's six universities ranked in the global top 100. We attract over 175,000 international students each year — worth \$7.1 billion to Victoria's economy in 2016, making education our largest services export sector.

## PRIORITIES OVERVIEW

Victoria's world leading education system will deliver excellence and equity for all, because we're meeting the needs of all students, regardless of where they live.

To do this, we're focusing on five priorities:

### 1. Catering for a growing population

Population growth means more Victorians engaged in education. Maintaining educational excellence and equity requires more infrastructure and better asset use.

### 2. Creating inclusive shared spaces

Schools are at the heart of local communities. With smarter design, land-use and facility sharing, schools will be places the whole community can benefit from.

### 3. Maximising use of technology

Students need access to the latest technology to equip them with the adaptive skills and knowledge to succeed now, and in future.

### 4. Developing skills for tomorrow

The Education State develops the skills students need to thrive in future industries. Job focused training and growing young Victorians' Asia engagement capability are two examples.

### 5. Improving education infrastructure

The quality of school facilities is linked to education outcomes for students and teachers.

# 1. Catering for a growing population

With Victoria's population projected to reach 10.1 million by 2051, more students than ever will enrol in our education and training institutions. To accommodate growing student numbers, the Victorian Government is building and upgrading education facilities. To ensure the next generation of students have equal learning opportunities, government is working together with local and national stakeholders in planning for future education needs.

## IN THE FUTURE



50 new government schools will be needed within the next five years to meet future growth demands.

## IN THE FUTURE



By 2050, Victoria's total school age population will increase by approximately 500,000 people.

### Projects and reforms

|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|-------------------|--------------|--------------|--------------|--------------|
| 1. Over <b>\$2.5 billion</b> for school infrastructure needed to cater for a growing population. Government investment is delivering facility upgrades and 56 new schools across Victoria. It includes <b>\$722 million</b> to construct, plan and buy land to construct new schools; and <b>\$174 million</b> for new relocatable classrooms. | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 2. <b>\$120 million</b> to provide new and refurbished classrooms to meet increasing enrolment demand at Independent and Catholic Schools across Victoria.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 3. <b>\$60 million</b> over four years, including <b>\$10 million</b> to address early years demand in high growth areas, to support local government and other service providers to invest in early childhood infrastructure.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 4. Complete a school investment pipeline on government's five-year investment program in new and upgraded facilities to allow for planning certainty.  | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 5. Improve demand management for schools through more effective school network planning. This will mean more efficient investment and use of school facilities.  | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |



## FUTURE DIRECTIONS

- › Continue to use population growth projections to plan for new education institutions, where the student population is predicted to rise.
- › Continue to determine where relocatable classrooms can be used and how assets can be shared to better manage demands across schools.
- › More actively plan, improve and expand on high quality early childhood services, recognising the high return on investment over the long-term in improved student and life outcomes.



### CASE STUDY

#### **Victorian School Building Authority (VSBA)**

Established in 2016, the VSBA brought together the Department of Education and Training's existing expertise in project management with the latest ideas in design and a dedicated community consultation team. The VSBA is a team made up of building experts, project managers, architects and specialists in relocatable buildings, community engagement and asbestos removal. The VSBA:

- builds on existing infrastructure planning and delivery strengths,
- has a stronger dedicated focus on project planning, delivery and community engagement,
- increases reporting to government with stronger asset policy integration, and
- provides a major uplift in statewide and local communications.

The future pipeline for schools includes:

- 10 new state-of-the-art schools in 2017, with another 11 due to open in 2018. A further 35 schools are at various stages of delivery.
- All asbestos identified as high risk has been removed from the 497 government school sites. Further funding allocated will target and remove asbestos in schools that may pose a risk in the future.
- The Yarra Ranges Tech School opened in April 2017. The Monash Tech School will also open in 2017, with the remaining eight Tech Schools to open in 2018.



## 2. Creating inclusive shared spaces

Schools can be more than places for learning. They have potential to be used by different groups and for purposes that benefit the whole community. To maximise value, the Victorian Government's Education State will transform many education facilities into integrated community centres that bring people together, connect local services and foster community pride.

### DID YOU KNOW



The Victorian Government's Accessible Buildings Program provides access to mainstream school facilities for students and parents with injuries or disabilities.

#### Projects and reforms

|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|-------------------|--------------|--------------|--------------|--------------|
| 1. Increase links between schools and the community through <b>\$50 million</b> to deliver the Shared Facilities Fund and <b>\$21.8 million</b> invested across the School Improvement Fund and School Pride and Sports Fund.  | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 2. <b>\$20 million</b> for the Inclusive Schools Fund, and ongoing funding for the Accessible Building Program to help Victorian government schools foster inclusive school environments and support the educational and social needs of students with disabilities. | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 3. The Department of Education and Training is currently working with TAFEs to develop a framework that will guide increased community engagement and usage of facilities.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 4. <b>\$10 million</b> to plan and build Early Childhood Development facilities co-located at new primary schools.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 5. <b>\$43.8 million</b> for the Doctors in Secondary Schools program, delivering modern, fit for purpose GP consultation facilities on school grounds at 100 secondary schools across Victoria.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |



## FUTURE DIRECTIONS

- › Continue to identify opportunities for co-location of education facilities for early childhood, school, training and TAFE to help support lifelong learning.
- › Support the transformation of schools into community facilities and improve the quality of services and education for students and their communities.
- › Strengthen school networks by encouraging the sharing of facilities across schools in local areas to promote equity and integration within the community.



## CASE STUDY

### Footscray Learning Precinct

Footscray is a diverse community with areas of disadvantage but also significant population growth, with the 0–24 aged population expected to nearly double in the next 25 years.

To respond to the emerging demand, the Victorian Government is investing \$15 million to develop the first stage of the Footscray Learning Precinct. The precinct will utilise world-leading infrastructure to link providers from early childhood right through to tertiary and adult education. This will be the first learning precinct of its kind in Australia, and will provide economic benefits for Western Metro.

The Victorian School Building Authority (VSBA) is leading the development of the precinct. VSBA is working carefully to ensure the precinct meets the needs of children, students and the local community. Construction of stage one is due to begin in 2018, with work completed in time for the 2020 school year.



### 3. Maximising use of technology

A new generation of students are learning and creating in new ways. Education facilities and curricula must keep pace with technology and the opportunities it offers students. To support the next generation of innovators, creators and digital professionals, the Victorian Government is investing in cutting-edge technology in education centres throughout the state. As part of the 2017/18 State Budget the Victorian Government will double the internet bandwidth of 347 small rural and regional government schools so all students can access a first-rate digital education, wherever they live.








#### DID YOU KNOW

Australia's ICT workforce is expected to reach 722,000 workers by 2022.

#### DID YOU KNOW

Critical information technology investment in 2017/18 will support more than half a million student computers in Victorian Government schools.

#### Projects and reforms

|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021  |
|---|-------------------|--------------|--------------|--------------|---|
| 1. <b>\$68 million</b> to ensure that digital education is accessible in the classroom for all young Victorians.  | Metro Melbourne   |              |              |              |  |
|   | Regional Victoria |              |              |              |  |
| 2. <b>\$16.4 million</b> to improve regional connectivity by increasing bandwidth for small regional and rural schools to ensure they have faster and more reliable access to online teaching, learning resources and an extended choice of subjects. | Regional Victoria |              |              |              |  |
|   |                   |              |              |              |   |
| 3. Ensuring government schools are provided with approved technicians through the Technical Support for Schools Program.  | Metro Melbourne   |              |              |              |  |
|   | Regional Victoria |              |              |              |  |
| 4. Equipping our teachers with the technology they need through the Notebooks for Teachers and Principals Program.  | Metro Melbourne   |              |              |              |  |
|   | Regional Victoria |              |              |              |  |



## FUTURE DIRECTIONS

- › Invest in technology infrastructure to provide students and apprentices with the necessary tools and equipment to succeed in the future.



## CASE STUDY

### Innovation in STEM learning

A network of six specialist centres is engaging students and teachers across Victoria in a contemporary, experiential science, technology, engineering and mathematics (STEM) curriculum.

The centres partner with industry and universities and have already inspired over 77,000 school students and their teachers. Program specialities include BioLab, Earth Ed, Ecolinc, Gene Technology, Quantum Victoria and Space Science.

Specialist STEM is available to all Victorian students and their teachers by visiting a centre, through STEM outreach, or digitally with a virtual program. Centres are open to students from P-12, with rural, regional and disadvantaged schools taking priority.





## 4. Developing skills for tomorrow

The Education State is about making sure we equip Victorian students with the skills they need for the future. This includes jobs-focused skills training and further engagement with Asia. To ensure Victorians can adapt and act on new opportunities, the Victorian Government is investing in the future of our international education system. We are committed to maintaining Victoria's reputation as a global education leader for our domestic and international students.

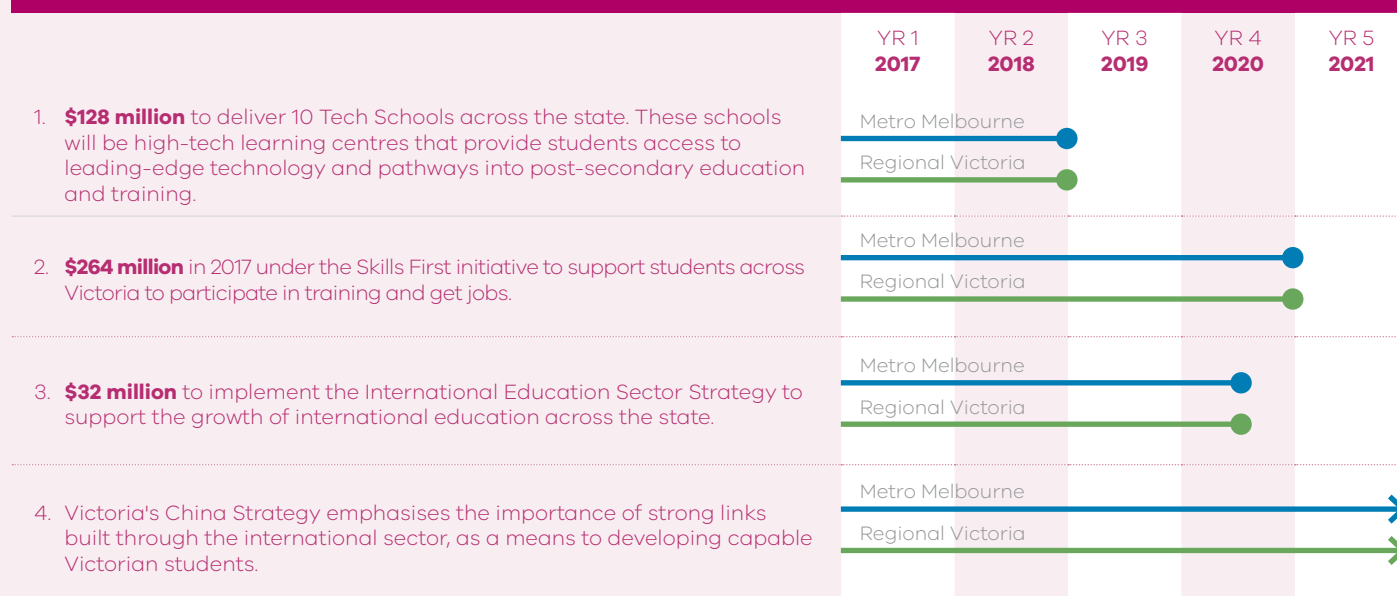
### DID YOU KNOW

International education generated over \$50 billion for Victoria's economy over the last 10 years, and over 68,000 Chinese international students were enrolled in the Victorian education system during 2016. International education supported 30,000+ Victorian jobs in 2016.

### IN THE FUTURE

Victorian job opportunities will shift, with 75% of the fastest growing occupations requiring Science, Technology, Engineering and Mathematics skills and knowledge.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Lead the way through education and training policies that focus on delivering the skills that will be needed by the workforce of tomorrow, including the ability to adjust to new and emerging technologies.
- › Foster a culture of innovation in partnership with the private sector and our educational institutions. We must make sure our education and training infrastructure and outcomes keep pace with rapid economic and technological change.
- › Continue to build on the strong relationships already formed with countries such as China and India as we position ourselves as a world leading provider of international education. This will help to create more jobs and promote economic prosperity for all Victorians.
- › Help Victorian students to be 'Asia capable', including by further incorporating Asian literacy into the Victorian Curriculum.



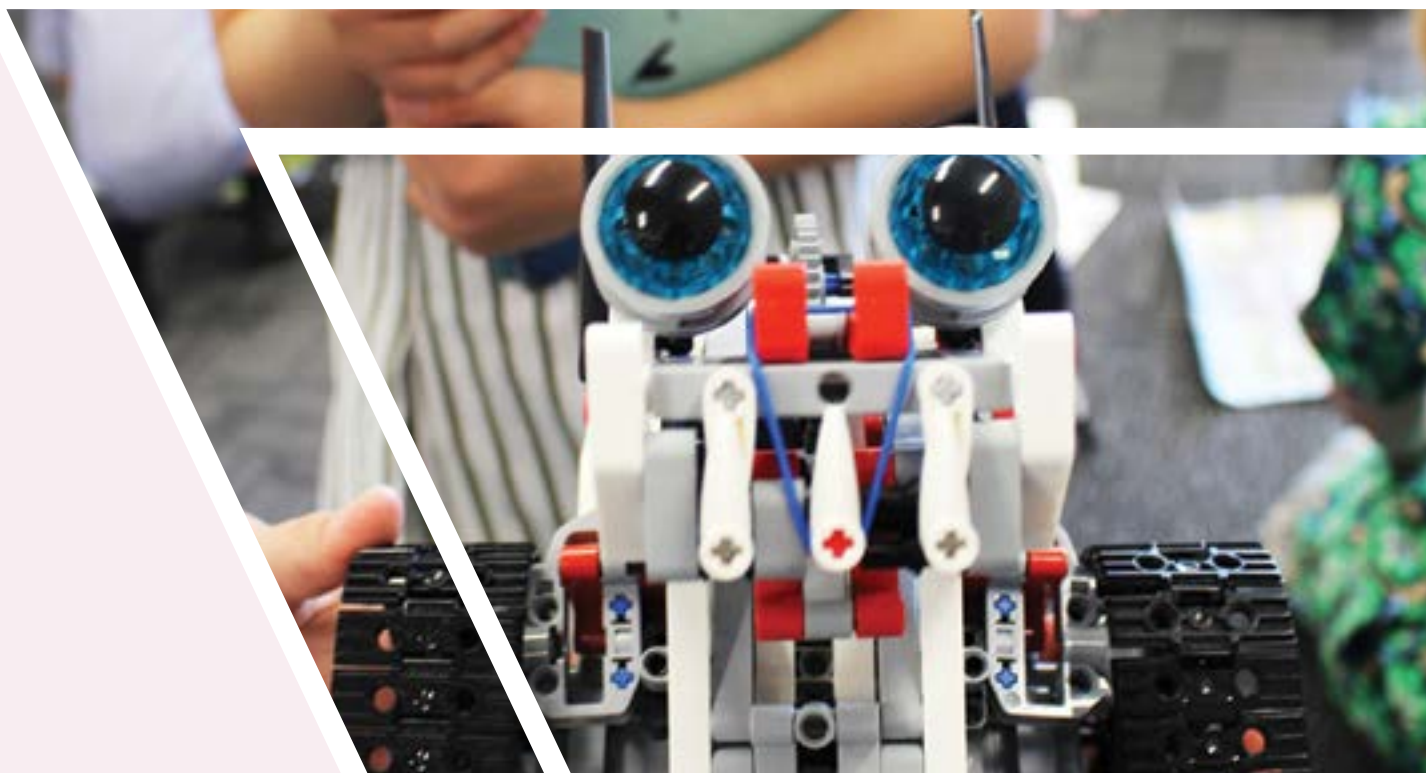
## CASE STUDY

### Tech Schools preparing Australia's future workforce

Opened to students in April 2017, the Yarra Ranges Tech School at Box Hill Institute's Lilydale Lakeside Campus is one of 10 state-of-the-art Tech Schools opening in 2017 and 2018. Tech Schools are not traditional training colleges, nor do they take enrolments. Rather, partner schools nominate students to participate in innovative, industry-led programs focused on science, technology, engineering and maths – all free.

Programs last from one or two days to a week, and give students a real-world problem to solve with creative strategies and using the latest technology. For students visiting Yarra Ranges Tech School, this means virtual reality, 3D printing and robotics.

The \$128 million Tech Schools initiative is part of the Victorian Government's commitment to creating the Education State, and ensure Victorian students flourish in the rapidly changing global economy and acquire essential skills for the jobs of tomorrow.



## 5. Improving education infrastructure

The quality of our education and training facilities plays a significant role in delivering positive outcomes for both students and teachers. To ensure Victoria remains a global leader in education, we will continue to invest in new state-of-the-art facilities. Just as importantly, we will modernise and optimise our current facilities to ensure they meet the needs of today and tomorrow.

### DID YOU KNOW



Over 200 schools have been upgraded and modernised since 2015/16.

#### Projects and reforms

|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$200 million</b> in maintenance funding to ensure education facilities meet the needs of students and teachers.   | Metro Melbourne   |              |              |              | ●            |
|  | Regional Victoria |              |              |              | ●            |
| 2. <b>\$244.1 million</b> for the Victorian School Building Authority, to continue to improve the condition of existing school assets: <b>\$131.1 million</b> for upgrades at 49 metropolitan schools; <b>\$64.1 million</b> for upgrades at 59 regional and rural schools; <b>\$4.5 million</b> to plan upgrades at existing schools; <b>\$44.4 million</b> to upgrade six special schools. | Metro Melbourne   |              |              |              | →            |
|  | Regional Victoria |              |              |              | →            |
| 3. An additional <b>\$155 million</b> over the last three budgets to remove asbestos from school buildings.  | Metro Melbourne   |              |              |              | →            |
|  | Regional Victoria |              |              |              | →            |
| 4. Continue to improve existing school facilities through the Planned Maintenance Program, specifically targeting maintenance issues raised during school condition assessments.   | Metro Melbourne   |              |              |              | →            |
|  | Regional Victoria |              |              |              | →            |
| 5. Deliver school infrastructure upgrades and regeneration to meet student needs, including <b>\$5 million</b> across the Latrobe Valley.  | Metro Melbourne   |              |              |              | ●            |
|  | Regional Victoria |              |              |              | ●            |
| 6. Continue to implement the suite of reforms currently underway, as recommended in the 2016 Victorian Auditor-General's Office Managing School Infrastructure audit report.   | Metro Melbourne   |              |              |              | →            |
|  | Regional Victoria |              |              |              | →            |



## FUTURE DIRECTIONS

- › Ensure future policies for ongoing maintenance across all Victorian Government schools is informed by lessons learned from the new maintenance model pilot program by the Victorian School Building Authority.
- › Reform funding, planning and governance arrangements so that education and training infrastructure is well designed, adaptable and future focused.
- › Design and develop schools that deliver cost-effective, multipurpose assets for the broader Victorian community, including integrating services and spaces that meet the different needs of the local community.



## CASE STUDY

### Future-proofing schools

Future Proofing Schools is an Australian Research Council initiative, rethinking Victorian classrooms to create stimulating learning spaces of the future. The project brings together education departments and industry partners Australia-wide.

Recent research shows that students experience a wide range of benefits through classroom transformations, and by revitalising our learning spaces to align new teaching methods and emerging technologies.

This study was completed by a combined team of designers, educators, landscape architects and sustainability specialists.

The research findings highlighted best practice and possibilities for future innovations in design. Implementing these ideas in Victorian schools is helping to future-proof our education and training facilities for the students of tomorrow.







Energy



## Introduction

**Our transition to a modern and renewable energy future is already well underway.**

Renewable energy is already the cheapest and cleanest new source of energy supply. The government is actively working to attract jobs and investment to Victoria by encouraging new energy technology businesses to establish operations across the state. Victoria can benefit economically, socially and environmentally from this transformation.

We are committed to making the transition to a cleaner energy future. Over the years to come, renewables will make up a much larger proportion of Victoria's electricity mix as renewable energy becomes cheaper and more competitive.

Gas is an important fuel to meet peaks in electricity demand and to support renewable energy generation. At projected consumption rates, Victorian natural gas reserves that are currently known are expected to meet demand for at least the next 15 to 30 years. Victorians use over 200 petajoules of natural gas each year, which is approximately 18 per cent of Australia's total consumption. Victoria has the highest rate of access to natural gas in Australia, with reticulated natural gas available in most Victorian cities and large towns. The government is facilitating the expansion of the natural gas network to other regional and rural areas through the Regional Gas Infrastructure Program.

As the cheapest form of emissions reduction, energy efficiency will also play a key role in the transition. Opportunities for energy efficiency exist across the economy to rapidly reduce bills, make businesses more competitive, and dramatically reduce greenhouse gases.

Victoria's energy infrastructure consists of generation, transmission and distribution networks, plus a retail sector. Government energy policy sets the directions for how the state's energy market should deliver reliable and affordable power to Victorian homes and businesses. Government has an oversight role that includes regulation, planning and support for innovation and preparation for dealing with energy emergencies. For example, the Critical Infrastructure Resilience Strategy defines the arrangements to manage risks to energy security across the state. Importantly, the Victorian Government is investing in Victoria's new energy technology sectors. Victorian businesses are developing cutting-edge technologies that make renewables more attractive and that improve our energy efficiency.

Continued industry support, government investment and policy certainty will ensure that Victoria's energy infrastructure and energy sector will create jobs, and drive emissions reductions.

### PRIORITIES OVERVIEW

We are committed to reaching a net zero emission future by 2050. Renewable energy sources, energy efficiency measures and new energy technologies will help us reach our targets while keeping energy costs down.

To do this, we're focusing on three priorities:

#### 1. Ensuring efficiency and affordability

We need to make sure that we make the most of the energy generated and that it remains affordable for all Victorian households and businesses.

#### 2. Protecting our energy security

We are implementing policies and pricing to encourage new technology, improve energy security, withstand shocks and disruptions, and equip us to take corrective action during periods of peak energy demand.

#### 3. Targeting net zero emissions

We are taking steps to achieve net zero emissions by 2050 by undertaking a range of measures, including committing to renewable energy generation targets of 25 per cent by 2020 and 40 per cent by 2025.

# 1. Ensuring efficiency and affordability

It's important that energy efficiency is prioritised from generation through to consumption. Energy efficiency reduces usage, lowers costs and drives important innovation. Businesses and households are being supported to make upgrades that will improve their energy efficiency and bring their energy costs down. Victorian Government buildings are also being improved to make sure energy is used as efficiently as possible.

## DID YOU KNOW

The Victorian Government investment in greener government buildings will save up to \$100 million in the longer term by cutting energy use.

### Projects and reforms

|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$88.8 million</b> to continue the government's plan to modernise Victoria's energy system and ensure the electricity network is stable, reliable and affordable.   | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 2. <b>\$53 million</b> to implement the Greener Government Buildings program to improve energy efficiency of existing government buildings.   | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 3. <b>\$24.2 million</b> to support energy efficiency and reduce energy prices for consumers, including upgrades to 3,300 low income households and releasing Australia's first home energy efficiency rating tool.   | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 4. <b>\$10.8 million</b> to minimise energy costs for consumers by improving capability of the Victorian Energy Compare tool, establishing a pilot energy brokerage service and improving energy information services for vulnerable customers, as well as facilitating customer access to energy data. | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |



## FUTURE DIRECTIONS

- › The Victorian renewable energy targets will lead with substantial, best practice energy efficiency policy that delivers tangible, long-term benefits to Victorians.
- › Build on our work with the Commonwealth, states and territories to improve flexibility in how new buildings meet energy efficiency requirements.
- › Continue to work with the Commonwealth and other states and territories through the Council of Australian Governments Energy Council, which oversees national regulation of electricity and gas. In particular, work with the COAG Energy Council on gas market reforms that will drive transparency, liquidity and competition in the energy sector to help reduce prices for customers.
- › Work with the Australian Energy Market Operator and Victoria's electricity distributors to improve information on network capability, and to facilitate timely connection of new renewable generation to the Victorian energy system.



## CASE STUDY

### Victorian Healthy Homes program

As part of the Home Energy Assist package, the Victorian Government will provide free home energy upgrades to up to 1,000 vulnerable Victorians who live with complex healthcare needs, and have low incomes, in Melbourne's western suburbs and the Goulburn Valley.

Healthy Homes will focus on measures such as efficient heating, ceiling insulation and draught proofing. This will improve winter comfort and reduce the energy bills of vulnerable Victorians.

In an Australian first, the program will conduct robust statistical evaluation of the benefits of energy efficiency to household health.

The project will also identify approaches to support greater adoption of energy efficiency for low income households, through identifying cost effective, provide better consumer advice and more affordable commercial services.

Upgrades will begin in January 2018 and continue until mid-2020.



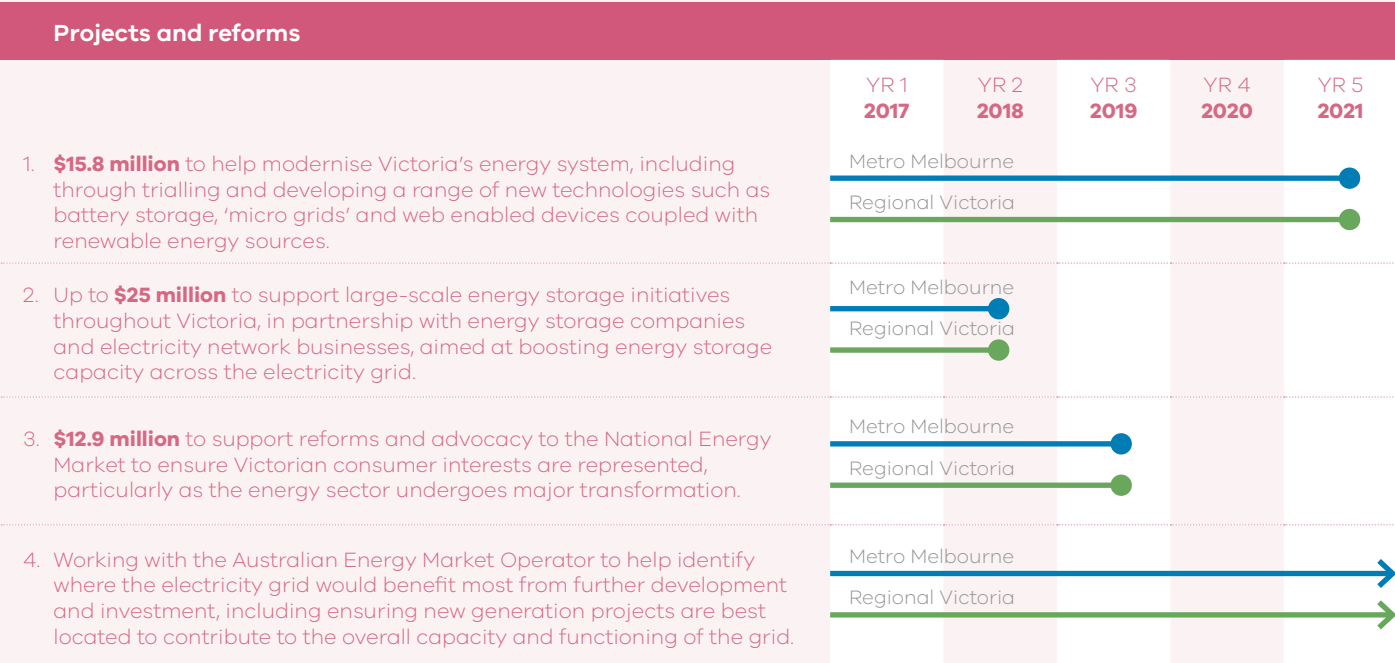


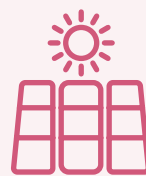
## 2. Protecting our energy security

Our electricity transmission and distribution system has served us well. In future a rapidly changing mix and location of Victoria’s energy sources will impact how our electricity grid operates. As we move to more diverse and lower emission generation, we must modernise the grid to maintain efficiency and reliability. The Victorian Government is supporting adoption and development of new technologies like large-scale battery storage and smart ‘micro grids’. These are important to ensure reliability, address demand across the grid and avoid costly upgrades of fixed energy infrastructure.

### DID YOU KNOW

The Victorian electricity grid delivers power throughout Victoria and carries power flows between Victoria, Tasmania, South Australia and New South Wales. This means the Victorian grid must integrate renewable energy from Tasmania’s hydro power generation and South Australia’s large capacity wind generation.





## FUTURE DIRECTIONS

- › Continue to support investment in renewables and new energy technologies to ensure that Victoria's renewable energy targets are met.
- › Encourage greater investment in a modern energy system that is fit for purpose and helps Victoria retain some of the most secure and reliable energy networks in the world.
- › Continue to support development and adoption of new technologies, like batteries and other smart storage solutions, with the aim of enhancing the overall performance and reliability of our energy network.
- › Transition to a more decentralised and integrated energy future for Victorian businesses and households, with an energy system that enables innovative new opportunities for energy generation and use that is affordable and responsive to changing demands.



## CASE STUDY

### Mini-grid trial in Mooroolbark

Victorian network operator AusNet Services is taking a Melbourne suburb completely 'off grid', powered only with rooftop solar and battery storage, in a first-of-its kind trial in Australia.

AusNet will install rooftop solar systems between 3 and 4.5 kilowatts with 10 kilowatt battery storage on each of 14 homes to demonstrate an effective alternative to the century-old model of large centralised generators and expansive and costly networks.

The trial will test how well homes with residential solar systems and batteries can generate, store and share renewable electricity with each other, and operate as a 'mini grid' via their local power lines.

A control system will monitor and manage energy flows within the mini grid, enabling energy stored in batteries to be shared between houses based on each household's needs, the diversity of customer loads within the mini grid and the needs of the network.



### 3. Targeting net zero emissions

Victoria has committed to a net zero emissions target by 2050. This will require action across the whole Victorian economy, including the energy industry. Transitioning to a low carbon future means supporting new energy technologies and new ideas that make a real difference. Investments in large and small-scale renewable energy generation projects will help us to make the transition. These investments are also important in developing Victoria's burgeoning renewable energy sector and the skilled jobs it supports.

#### DID YOU KNOW

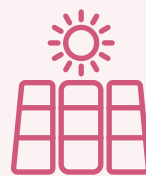
Renewable energy in Victoria has increased substantially in recent years, growing from 6% in 2009 to 17% in 2016.

#### IN THE FUTURE

Our renewable energy production targets are estimated to support capital expenditure of \$9 billion in new projects, resulting in \$2.5 billion of direct investment and up to 11,000 two year construction jobs.

#### Projects and reforms

|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|-------------------|--------------|--------------|--------------|--------------|
| 1. Government is supporting the construction of 75 megawatts of large-scale solar farms in regional Victoria, with 35 megawatts to be linked to Melbourne's tram network.   | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 2. Support the construction of two new windfarms in western Victoria, which will bring forward \$220 million of new investment and generate around 100 megawatts of renewable energy, enough to power 80,000 homes.   | Regional Victoria |              |              |              |              |
| 3. <b>\$20 million</b> for the New Energy Jobs Fund as part of Future Industries Fund, which will support Victorian-based energy technology projects that increase the uptake of renewable energy generation, reduce emissions and support jobs.  | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 4. <b>\$42.5 million</b> to deliver geoscientific and environmental studies into the risks, benefits and impacts of onshore conventional gas, as well as promoting further offshore gas and underground gas storage activities and a supporting work program including resource planning, regulatory improvements and community engagement. The studies into onshore conventional gas will be overseen by Victoria's Lead Scientist, as well as a stakeholder advisory panel with farmers, industry, local governments and communities. | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 5. Victoria's Renewable Energy Action Plan consolidates <b>\$146 million</b> of funding across three focus areas: supporting sector growth, empowering communities and consumers, and modernising our energy system. The plan includes some of the above investment and other energy initiatives. It encourages investment and supports a reliable, affordable and renewable energy system by giving consumers more control over how the source, buy, sell and use energy.  | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |



## FUTURE DIRECTIONS

- › Continue to work with communities and industries impacted by the transition to a low emissions future, including skills development, job creation and opportunities for site rehabilitation.
- › Government will continue to support new energy technologies like Moreland City Council's zero emission hydrogen vehicle fleet.



## CASE STUDY

### Solar powered trams

Melbourne has one of the largest electric tram systems in the world, with 410 trams covering 250 kilometres of track. In a world first, the tram network will soon be powered by a new large scale solar plant to be built in regional Victoria.

The Victorian Government will run a tender to help build 75 megawatts of new large scale solar PV farms, with around 35 megawatts linked to the tram network. The government will then voluntarily surrender renewable energy certificates matching the amount of electricity used by all the trams.

This will reduce our annual greenhouse emissions by 80,000 more tonnes.

Not only will this help Victoria stay on track to meet its target of net zero emissions by 2050, but the Victorian Government also expects to attract \$150 million in investment for the project and to create 300 new jobs.





A photograph of a woman and a man hiking through a lush forest. The woman is in the foreground, wearing a dark t-shirt and light-colored pants, with a backpack. The man is behind her, wearing a plaid shirt and shorts. They are walking on a wooden boardwalk. The forest is filled with tall trees and large green ferns. The image is framed by a green geometric design on the left and bottom.

# Environment



## Introduction

**Our natural environment underpins our quality of life, and much of the social and economic activity of our state.**

Our healthy environments encourage us into the great outdoors. Connecting with nature provides us with many additional benefits such as a reduction in human disease risk factors and stronger community cohesion.

In urban areas, green spaces improve the appeal of our built environments. All Victorians should be able to connect with nature and enjoy the outdoor activities and opportunities that our state has to offer.

Our environment supports the tourism, agriculture, forestry, fishing and earth resources industries. Nature-based tourism accounts for 70 per cent of all international overnight visitors to Victoria, and Victoria produces 26 per cent of all Australian food and fibre exports.

In the context of climate change and a fast-growing population, how we manage our environment and our resources is more important than ever. More people means more demand for goods and services, as well as more waste generation. Moreover, waste and pollution sources are changing, and we need to be flexible and adaptive to respond to this change.

The Environment Protection Authority (EPA) and the *Environment Protection Act 1970* have been successful in reducing the impact of pollution and waste in Victoria. Yet, over 40+ years since the EPA's inception, population growth, a shifting economy, increased urban development and rapid technological change have brought new risks, changing how pollution and waste impact our health and Victoria's environment. These important reforms underpin the four priorities for our environment sector.

An independent inquiry commissioned by the Victorian Government has recommended ways the EPA might be reformed to better meet current and future challenges. In responding to the recommendations, the government has committed to comprehensive reforms that enhance the EPA's capabilities and modernise Victoria's legislative framework for environmental protection. These reforms will ensure a proactive and preventative approach to reduce the impacts of pollution and waste.

## PRIORITIES OVERVIEW

We must protect and carefully manage natural assets for the benefit of all Victorians, now and in future. The Victorian Government leads from the front on the environment, including meeting the challenges of climate change and population growth.

To fulfil this leadership role, we're focusing on four priorities:

### 1. Protecting Victoria's biodiversity

We're taking a modern and effective approach to protecting the state's rich biodiversity, with conservation efforts that ensure our natural environment is healthy, valued and cared for.

### 2. Managing our parks

Sound management of our parklands will ensure all Victorians can continue to enjoy our natural environment, while supporting growth in nature-based tourism.

### 3. Taking action on climate change

We're committed to renewable energy and emissions reduction targets. We recognise more must be done to build resilience and adapt to climate related change, and to manage the impacts of natural disasters.

### 4. Improving resource recovery and waste management

Long-term planning and investment in waste management will ensure Victoria has efficient and sustainable resource recovery systems to make the most of our finite resources.



# 1. Protecting Victoria's biodiversity

Victoria's ecosystems support our wellbeing and prosperity. Natural environments must be properly valued and cared for to protect our biodiversity. The government is putting in place a long-term plan, Protecting Victoria's Environment — Biodiversity 2037, to safeguard our environment for future generations through improved planning and protection across the state.

## DID YOU KNOW

More than 5,000 plants and 1,200 animals are native to Victoria.

## IN THE FUTURE

Without action, the quality and extent of native vegetation in Victoria will shrink by about 4000 habitat hectares each year.

### Projects and reforms

|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|---|-------------------|--------------|--------------|--------------|--------------|
| 1. <b>\$86.3 million</b> to support initial implementation of Protecting Victoria's Environment — Biodiversity 2037 including developing on-the-ground actions with key partners and communities. | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 2. <b>\$36.3 million</b> to protect forests and support wildlife conservation across regional Victoria through more effective regulations and strengthened compliance measures.                   | Regional Victoria |              |              |              |              |
|   |                   |              |              |              |              |
| 3. Reviewing the Flora and Fauna Guarantee Act (1988) and native vegetation clearing regulations to ensure Victoria has a modern and effective biodiversity regulation and legislation.           | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |



## FUTURE DIRECTIONS

- › Continue to show national leadership in biodiversity protection, particularly in response to the challenges of climate change.
- › Strengthen support for the broad range of efforts by community and volunteer groups aimed at improving the resilience of our native plants and wildlife.
- › Embed consideration of the environment into decision-making across the whole of government, and support industries to do the same.
- › Engage with Traditional Owners and Aboriginal Victorians to include Aboriginal Values and traditional ecological knowledge in biodiversity planning and management.
- › Generate environmental benchmarking information about groundwater dependent ecosystems and fauna ('stygo fauna') to support a decision on conventional gas activities in the future. This is additional to the ban on extraction of coal seam gas under the Fracking Ban 2017 to protect groundwater-dependent ecosystems and agriculture.



## CASE STUDY

### Protecting Victoria's Environment — Biodiversity 2037

Victoria leads the way in protecting native plants and animals for the enjoyment of future generations.

The Biodiversity Plan uses the latest scientific modelling to inform new approaches to halt the decline of the state's native plants and animal populations. We need to take steps that improve our natural environment so that it is healthy, valued and actively cared for.

The plan will guide actions to:

- increase the collection of data for evidence based decision-making,
- raise awareness about the importance of the state's natural environment,
- provide opportunities to improve Victorians' access to nature,
- provide communities with the opportunity and tools to protect and care for the environment,
- help to create more liveable and climate adapted communities, and
- establish sustained funding for biodiversity.





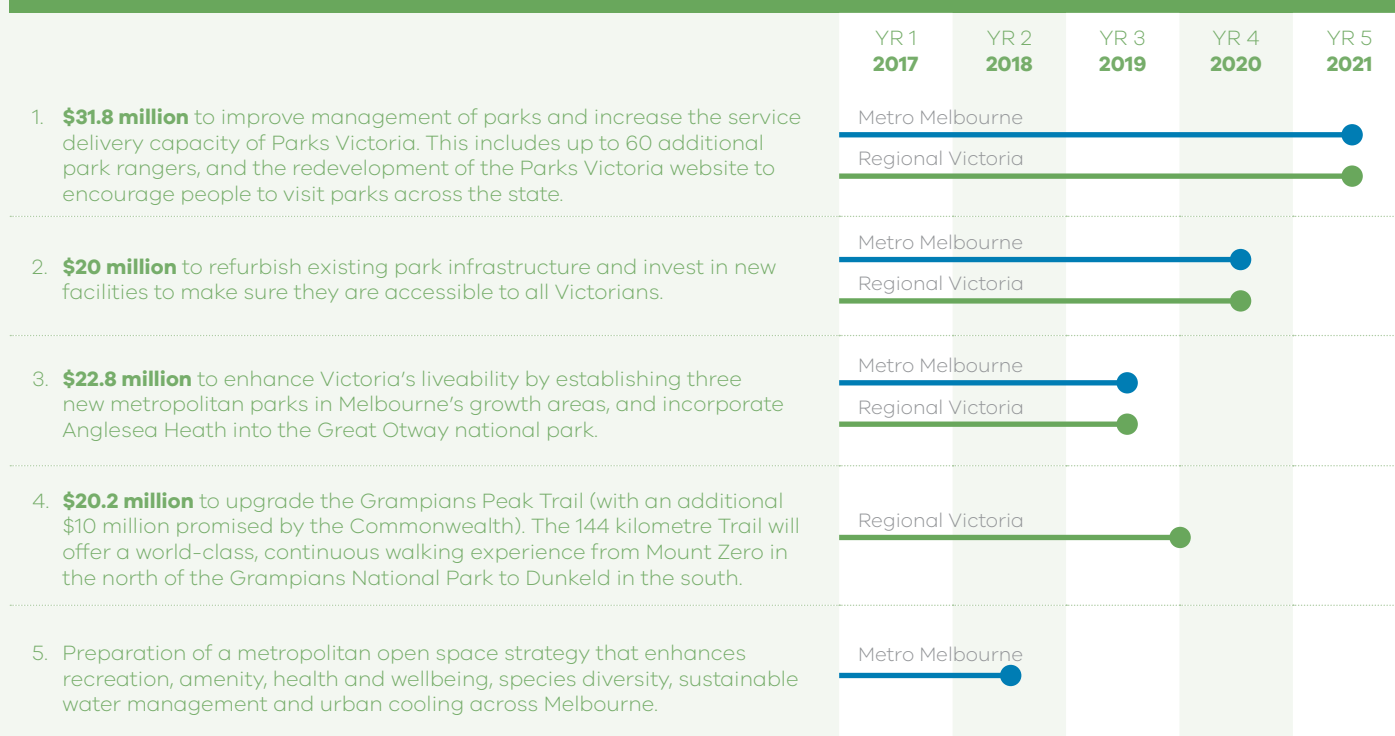
## 2. Managing our parks

Infrastructure in Victoria's parklands is vital for protecting the natural environment and attracting people to our parks. To ensure people can continue to enjoy the benefits and beauty of Victoria's parks, the Victorian Government will revitalise existing park facilities and invest in new ones. There are also a range of challenges that need to be addressed, including weeds, pests and bushfire risks.

### DID YOU KNOW

Every year there are 98.5 million visitors to our parks, and Parks Victoria manages around \$1.8 billion worth of assets across more than 4.1 million hectares.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Invest in and strengthen Parks Victoria to continue safeguarding the health and wellbeing of our natural environment.
- › Collaborate with community organisations and the private sector to improve how parklands are managed and used to ensure they can be enjoyed by all Victorians in a fair and sustainable way.



## CASE STUDY

### Expanding Great Otway National Park

In February 2017, the Victorian Government announced the annexure of Anglesea Heath to Great Otway National Park. This will increase the park's area by more than 6,510 hectares.

For more than half a century, a large area of Crown land behind Anglesea had been leased to Alcoa. The company operated a coal mine and power station at this location, which were closed in August 2015.

Anglesea Heath is a unique haven for native flora and fauna, and home to approximately one quarter of Victorian indigenous plant species including:

- more than 100 types of orchid (making it one of the most orchid-rich sites in Australia),
- 20 species of flora that are rare or threatened at state level, and
- eight species of flora that are rare or threatened at national level.

Legislation to incorporate the Heath into the National Park has been introduced into Parliament.



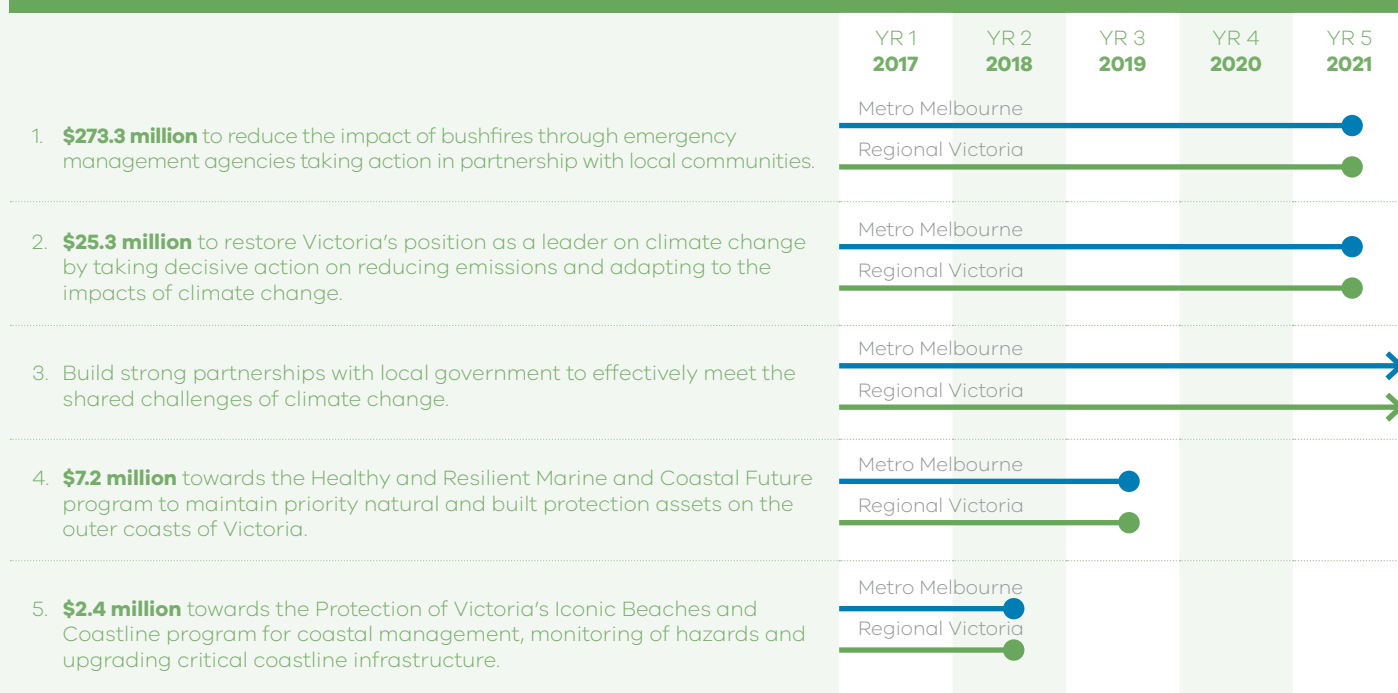
### 3. Taking action on climate change

Climate change brings significant challenges for Victorians. *The Climate Change Act 2017* provides Victoria with a world-leading legislative foundation to manage climate change risks, maximise the opportunities that arise from decisive action, and drive our transition to a climate resilient Victoria with net zero emissions by 2050. Statewide efforts include working with industry, the community and local government, and developing better data to inform our actions.

#### DID YOU KNOW

The economic, social and environmental cost of bushfires in Victoria has exceeded \$8 billion since 2002.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Reduce Victoria's greenhouse gas emissions to net zero by 2050.
- › Support climate change research to understand climate risks and develop effective ways to manage them.
- › Under the *Climate Change Act 2017*, the Victorian Government will:
  - » set five yearly interim emissions reductions targets,
  - » develop a Climate Change Strategy every five years, which will set out how Victoria will meet its targets and adapt to the impacts of climate change,
  - » develop Adaptation Action Plans for key systems that are either vulnerable to the impacts of climate change or essential to ensure Victoria is prepared, and
  - » establish a pledging model to reduce emissions from government's own operations and from across the economy.



## CASE STUDY

### Net zero by 2050

The Victorian Government has committed to legislating a long-term target for Victoria of net zero greenhouse gas emissions by 2050.

This means that by 2050 Victoria's greenhouse gas emissions will be reduced as much as possible, with any remaining emissions offset through activities that capture carbon.

This will enable Victoria to do its part to keep global warming below a two degree Celsius rise from preindustrial levels, as supported by 195 countries through the 2016 Paris Agreement.

The Victorian Government will set five yearly interim targets to 2050 to ensure this important and ambitious target is reached.





## 4. Improving resource recovery and waste management

At current rates of recovery, population growth and industry expansion mean that more materials will end up in landfills in the future. In order to increase recovery rates and reclaim valuable resources from the waste stream, the Victorian Government is taking an integrated approach to resource recovery and waste management. This includes a focus on recovering organics, supporting markets for recycled products and improving education. Additionally, these improvements will create new jobs.

### IN THE FUTURE

Total waste generation is expected to rise by 69% from 12.2 million tonnes in 2011/12 to 20.6 million tonnes by 2043.

#### Projects and reforms

|  | YR 1<br>2017   | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|--|--------------|--------------|--------------|--------------|
| 1. <b>\$30.4 million</b> to implement the waste and resource recovery planning framework, and support development of resource recovery infrastructure.   | <div> <div>Metro Melbourne</div> <div>Regional Victoria</div> </div> |              |              |              |              |
| 2. Establish and maintain buffers that separate waste management facilities from other uses, and apply best practice standards to help protect communities.  | <div> <div>Metro Melbourne</div> <div>Regional Victoria</div> </div> |              |              |              |              |
| 3. Monitor and evaluate the implementation of the Statewide Waste and Resource Recovery Infrastructure Plan in partnership with the seven Regional Waste and Resource Recovery Groups in Victoria. | <div> <div>Metro Melbourne</div> <div>Regional Victoria</div> </div> |              |              |              |              |
| 4. Implement the Victorian Organics Resource Recovery Strategy, which sets out a statewide approach for government, business, industry and the community to better manage organic waste.           | <div> <div>Metro Melbourne</div> <div>Regional Victoria</div> </div> |              |              |              |              |



## FUTURE DIRECTIONS

- › Support the medium- to long-term goals in the Victorian Organics Resource Recovery Strategy. This will assist Victoria to realise the full economic value of organic waste; transition to advanced technologies and improved treatment and processing of organics; and establish conditions for a thriving organics recovery and processing industry.
- › Utilise the Market Development Strategy for Recovered Resources to support conditions for the resource recovery and manufacturing sectors to grow and to increase investment in products made from recovered materials.
- › Build on the Victorian Waste Education Strategy to ensure that Victorians are well informed and taking practical action to reduce their waste and minimise environmental impact.



## CASE STUDY

### Victorian Waste Education Strategy

The Victorian Waste Education Strategy has been developed by Sustainability Victoria in partnership with communities, councils and the waste industry acknowledging the need for shared responsibility and to increase the effectiveness of education by using the best techniques and behavioural insights.

It aims to provide a consistent and coordinated statewide approach to waste education, focusing on behaviour change and increased understanding of the need for, and value of, waste and resource recovery activities.

The 10-year strategy will prioritise:

- understanding community attitudes and perceptions towards waste services and infrastructure,
- delivery of programs that support and encourage waste avoidance (for example, food waste),
- improving resource recovery, for example, behaviour change and supporting local interventions to address contamination issues, and
- reducing litter and illegal dumping, including industrial waste.

Figure 3: Waste Generation and recovery in Australia (tonnes/capita)



Source: Department of Environment and Energy, 2013



# Health and human services



## Introduction

The Victorian health and human services sector plays a key role in keeping Victorians safe and healthy.

Our health system provides some of the best care and medical treatment found anywhere in the world. Our human services system helps thousands of Victorians every day with a broad range of critical support.

As our population grows larger and as people grow older, the demand for these services will increase. The infrastructure that services depend on must be built, expanded and upgraded with a view to the future needs of our communities. But we also need to continually innovate, make best use of technology and data, and continuing to support our workers to perform their life-saving and life changing work.

The public health system includes 126 public hospitals and health services with a wide range of acute, sub-acute and mental health services, residential aged care services, 86 community health services and 260 ambulance response stations around the state. Victorians rely on having these services being available in their communities to respond to emergencies and to diagnose and treat debilitating and life-threatening injuries and illness.

Supporting a health system that does all of these things while providing good access across the state is a key priority for government. A range of investments are being made in the people, processes and facilities that will make the health system work better for more people. Investments are also being made to commercialise and export the medical technologies and bioscience discoveries that help patients both here and overseas. Victoria's annual exports in healthcare and biosciences are worth more than \$2.4 billion and over 10,000 Victorian jobs.

Human services encompass a range of supports and initiatives that address Victorians' needs for housing, disability, family and child services. These services are often needed in times of crisis when people are at their most vulnerable. The difference that a supportive and meaningful intervention can make in the life of a Victorian going through tough times can change the course of their lives.

### PRIORITIES OVERVIEW

We're focusing on five priorities to provide the infrastructure needed to support delivery of the right services, at the right time, in the right way for Victorians:

#### 1. Building a proactive system that anticipates demand

Victoria's population is growing and ageing, altering the nature and demand on services. Anticipating future needs lets us build capacity to keep pace with change.

#### 2. Driving system-wide reform for safer, better services

The challenges facing our systems mean new approaches to health and human services design, quality assurance, workforce capabilities and technology.

#### 3. Integrating care across the health and social service system

Those who are vulnerable or with complex needs rely on multiple providers. Better service connections will strengthen early intervention, outcomes and lower cost.

#### 4. Improving equity and access

Better planning and policy design will target support where it's needed most, to give people the best care, wherever they live.

#### 5. Investing in the future

Development and adoption of cutting-edge research, practice and technology will maintain Victoria's world-class health and human services system in future.



# 1. Building a proactive system that anticipates demand

Victoria's health and human services system is under increasing pressure from unprecedented population growth and ageing, as well as the rising costs of care, technology and housing. The Victorian Government is investing in key infrastructure, identifying areas of future need as well as current gaps, and increasing the capacity for supporting people in their communities.

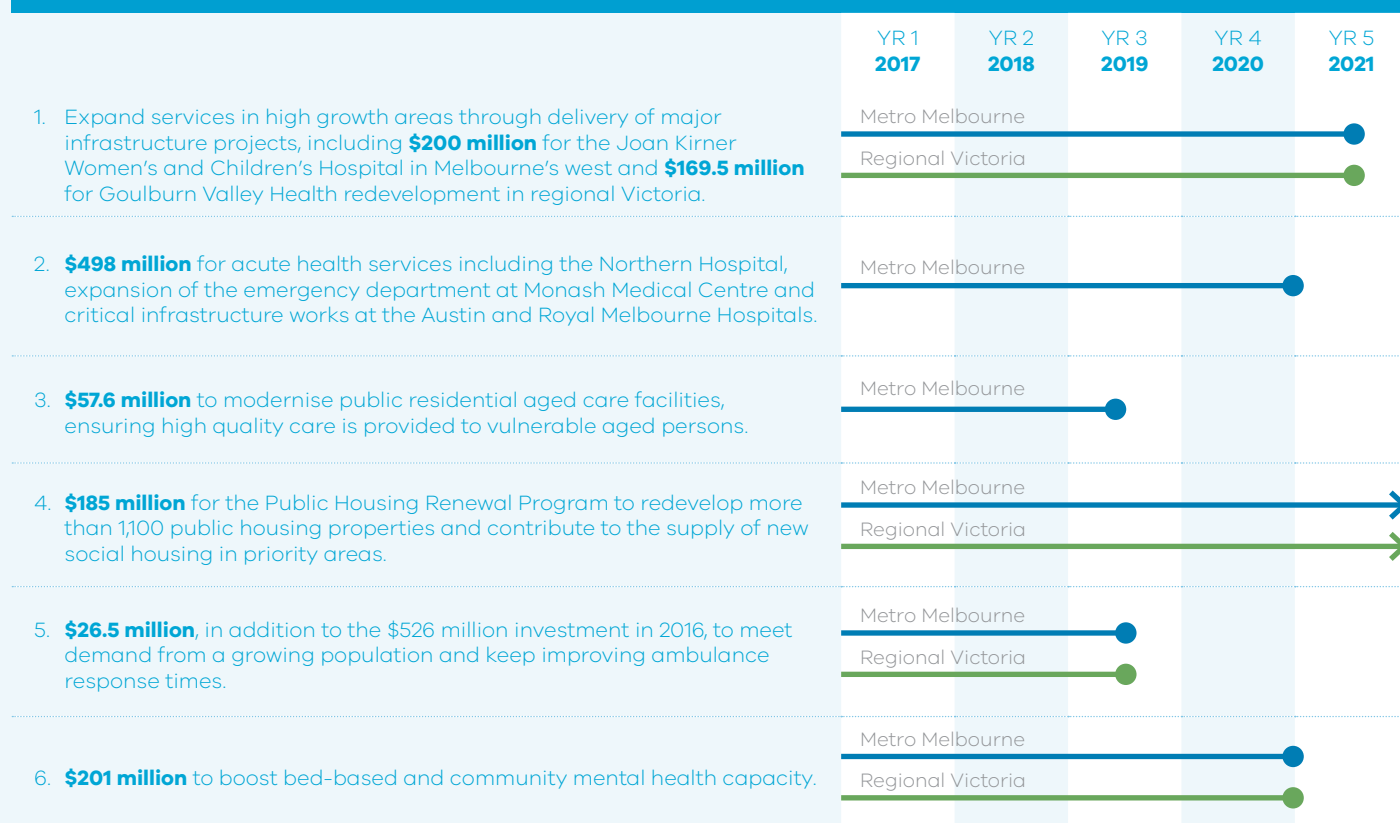
## DID YOU KNOW

The hospital system will need to be able to treat an additional 1.5 million patients in 20 years' time, enough to fill 15 MCGs, unless we expand alternatives to hospital care.

## IN THE FUTURE

Most care will be delivered in the community, better supporting vulnerable people including those with chronic disease.

### Projects and reforms





## FUTURE DIRECTIONS

- › Develop new design, service and infrastructure plans for Victoria's major health service streams as well as metropolitan and regional locations across the state, to provide certainty and direction for both system-wide and local investments.
- › Major redevelopments of key metropolitan and regional hospitals.
- › Monitor implementation of Homes for Victorians initiatives to ensure they are delivering the anticipated pipeline of affordable and social housing and take further steps as required.
- › Further expansion of mental health, alcohol and other drugs services.
- › Further expansion and redevelopment of forensic mental health services.



## CASE STUDY

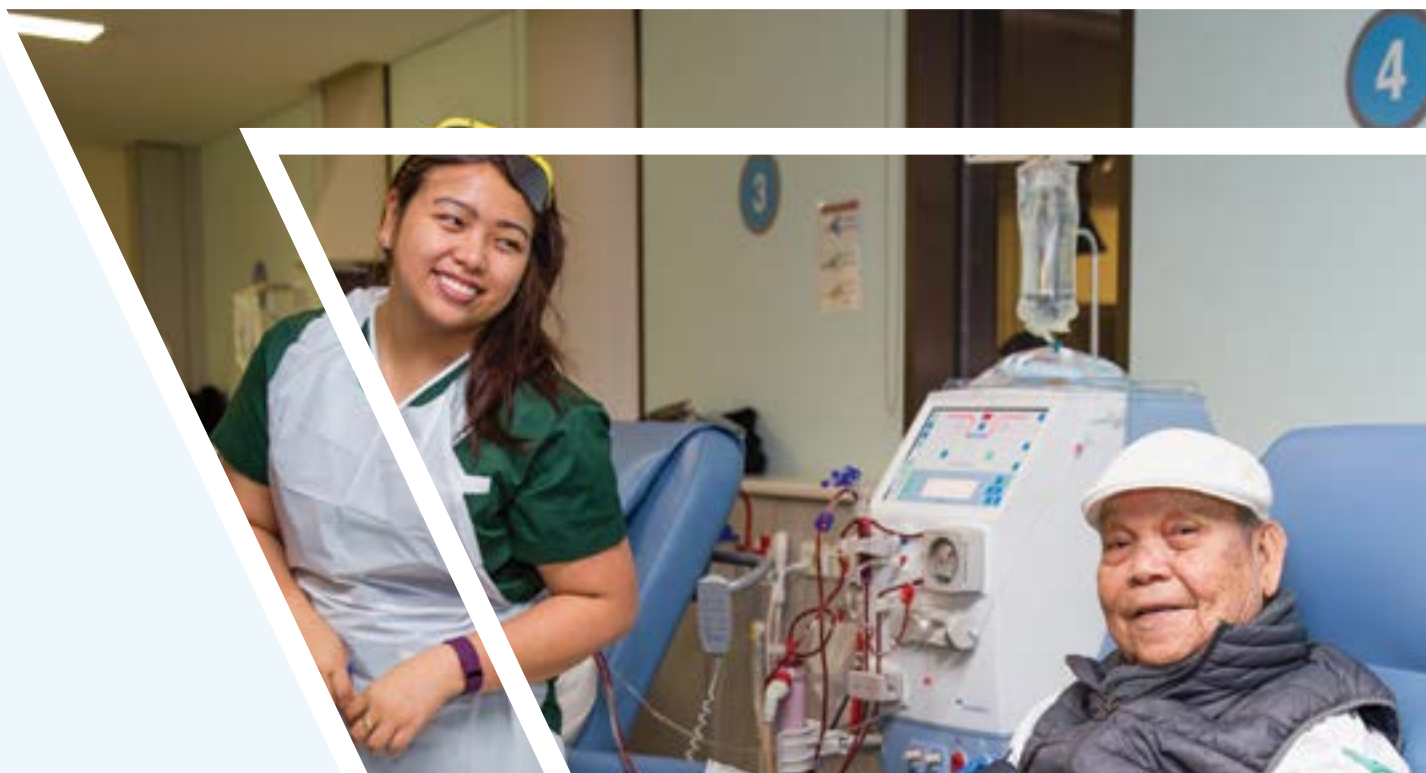
### Northern Hospital upgrade

Melbourne's northern suburbs of Epping, South Morang and Craigieburn are three of the fastest growing suburbs in the state, with population growth rates above 11 per cent estimated between 2016 and 2021.

The Northern Hospital services more than 365,000 people in the region, with that figure set to rise to 550,000 by 2031. To meet the health needs of a growing population, the Victorian Government has committed \$162.7 million to fund stage 2 of the upgrade to the Northern Hospital.

The project will see the completion of a seven storey tower and add 96 new inpatient beds, three operating theatres and more treatment rooms. This significant upgrade will allow 10,000 more patients to be treated at the hospital each year.

Building works at the site are expected to start in late 2018, and are due to be completed in 2021.



## 2. Driving system-wide reform for safer, better services

Our health and human services face extensive and evolving challenges. As patterns of illness, disease and usage change, different workforce skills and capabilities are needed. The Victorian Government is responding by investing in quality service delivery, safety, workforce development and digital technologies. Big changes are underway, particularly as the National Disability Insurance Scheme (NDIS) rolls out. Family violence reforms that respond to the Royal Commission into Family Violence will also alter how we help families and children in need.

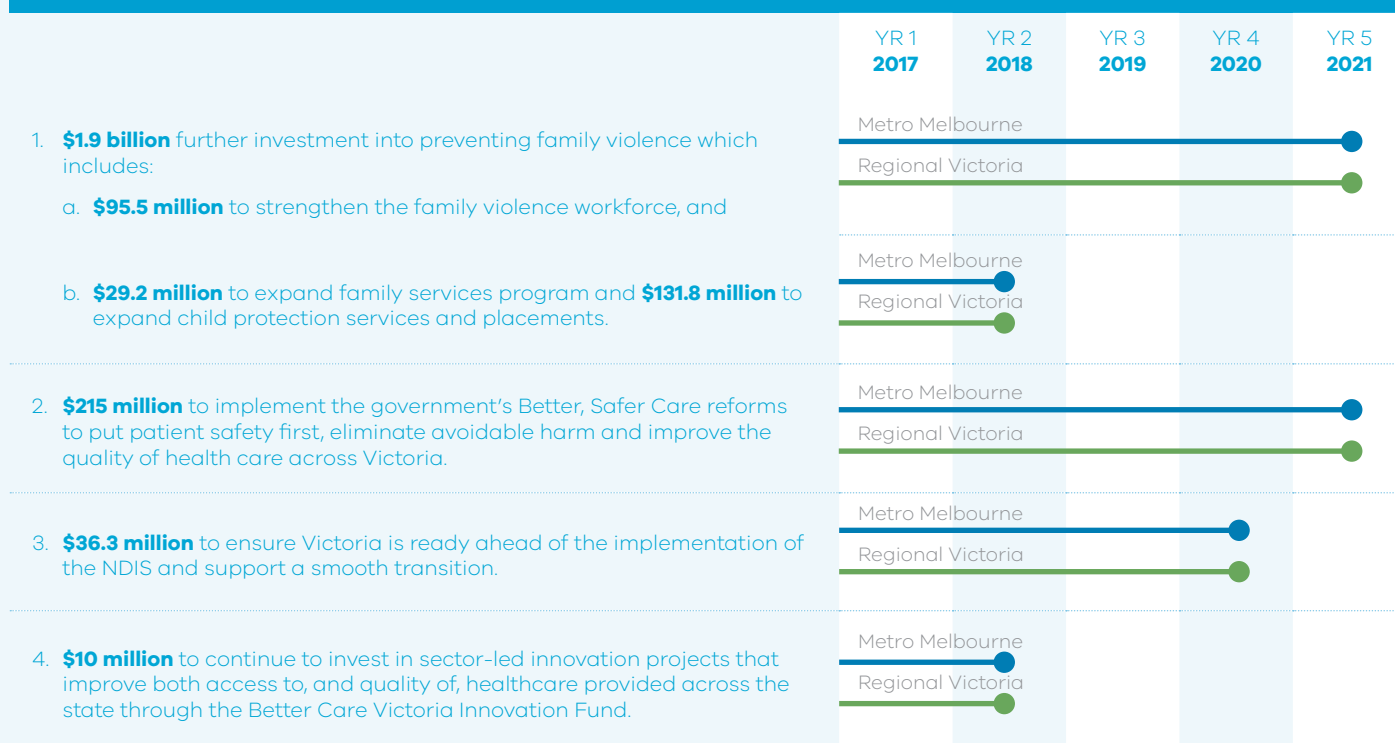
### DID YOU KNOW

NDIS reforms will end the use of waiting lists and is expected to benefit around 105,000 Victorians with a disability.

### DID YOU KNOW

In a recent survey, more than 75% of patients across all age groups indicated they would like to be able to access digital health services in the future, as long as those services meet their needs and provide the level of quality they expect.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Implement digital clinical systems across all public hospitals and health services, including the establishment of clinical and research information exchanges that connect all elements of the health care system through a secure communications network.
- › A health system role delineation framework will guide decisions about what workforce and infrastructure capacity is required to support our health services to deliver high quality, safe care.
- › Supporting the roll-out of the National Disability Insurance Scheme so people living with disability, and their families, can get the support they need.



## CASE STUDY

### Digital health cyber security

The Victorian Public Health Cybersecurity Program is a multi-year action plan to increase resilience in the Victorian public health service against the growing global threat of cyber attacks.

The program focuses on securing health services by replacing at risk or unsupported ICT technologies, and implementing strict security controls, including advanced intrusion protection systems and a robust incident response and recovery framework.

The sector has adopted the US-based National Institute of Standards and Technology Cyber Security Framework and has established a baseline set of cyber security controls from which all health services' compliance will be measured.

This program will improve the cyber security capability of all health services, thereby reducing their risk of exposure to cyber attacks as well as enhancing their recovery capability in the event of being impacted.





### 3. Integrating care across the health and social service system

Many challenges faced by vulnerable Victorians overlap or coincide. For example, mental health issues are often exacerbated or triggered by substance abuse, long-term unemployment and homelessness. Treating issues holistically means lowering barriers between service providers, strengthening prevention and early intervention capabilities, and achieving better outcomes sooner. The Victorian Government is investing in integrated facilities and making support more accessible. This will deliver better and lasting improvements in the health, safety and wellbeing of all Victorians.

#### DID YOU KNOW

Nearly half of all Victorians (45%) will experience mental illness in their lifetime.

#### DID YOU KNOW

Ambulance attendances for illicit substances increased by 29% between 2014 and 2015, influenced by a 48% increase in methamphetamine ('ice') drug use.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Expand the integrated community based health and wellbeing hubs in partnership with a mix of health providers and other complementary human services, prioritising Melbourne's high growth areas in the north, west and south-east, as well as regional areas including Cobaw, Corio, Ballarat and Yarram.
- › Work with Commonwealth funded Primary Health Networks to improve the way the system works for people with similar needs, including shared funding and facilities that better link primary health care with services such as drug treatment support and mental health care.
- › Connect broader government directions and processes with locality planning to ensure infrastructure outcomes within local communities that support delivery of health and social services that are networked, integrated and accessible.
- › Strengthen prevention and early intervention by pursuing place based approaches that prioritise joint planning, resourcing and service delivery. This is needed to effectively address the full range of social, physical and environmental factors that affect health and wellbeing.



## CASE STUDY

### Pakenham Community Health Centre

Pakenham residents now have better access to the vital community health, mental health and family services they need — all under one roof.

Pakenham Health Centre opened in May 2017. The new \$6.2 million facility will deliver Monash Health and Cardinia Shire council services and is designed to meet the existing and future health needs in Melbourne's expanding south east corridor.

The facility provides community health services with room to grow so the needs of a rapidly growing population can be met. As service provision expands, Pakenham Health Centre will also create local health sector jobs.

Services include maternal and child health, counselling, allied health and rehabilitation, pathology, pharmacy, mental health, and legal services. The centre also supports collaboration between community based organisations, giving locals access to the health and wellbeing services they need.



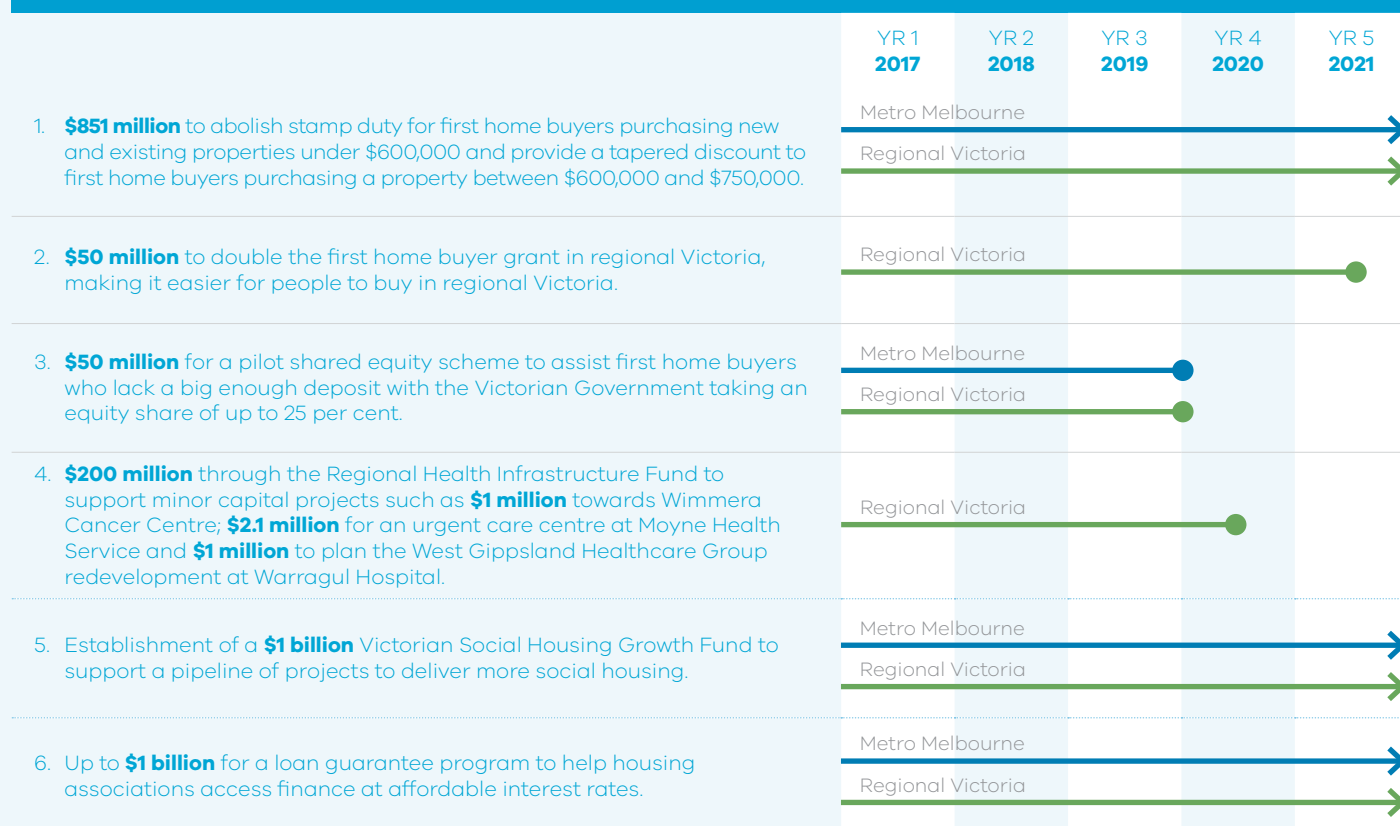
## 4. Improving equity and access

Ensuring access to affordable housing and health services is a growing concern for many in our state. The Victorian Government is taking a coordinated approach to introduce a range of planning and policy reforms that provide all Victorians with better access to housing and the services they need. This includes making it easier for first home buyers to enter the market as well as ensuring access to top quality health care regardless of where people live.

### IN THE FUTURE

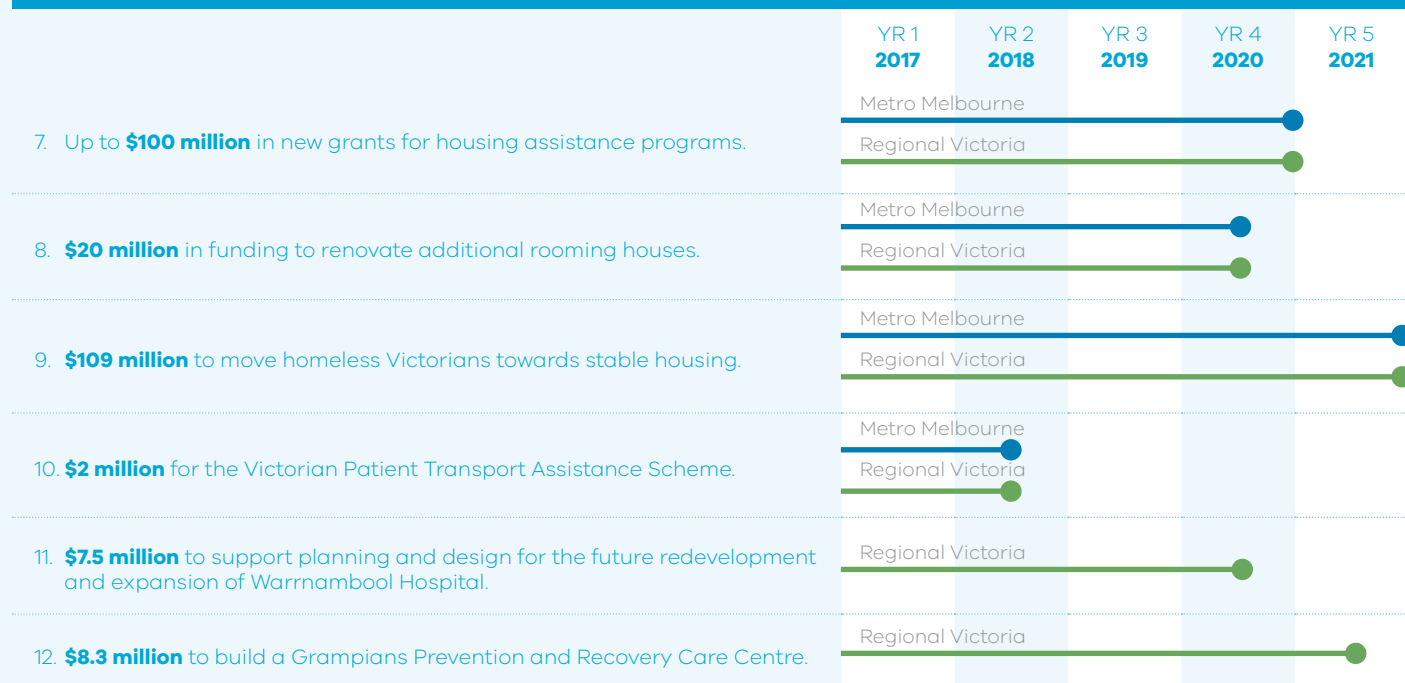
Over 22,780 people were homeless at the 2011 Census and independent forecasting is predicting these numbers could more than double by 2021.

#### Projects and reforms





## Projects and reforms



## FUTURE DIRECTIONS

- › Expand and embed technology enabled systems to give people in rural Victoria access to a wider range of services.
- › Establish clearly defined pathways to ensure patients in rural areas move seamlessly through the system.
- › Implement targeted recruitment programs and incentives for skilled health workers to stay and settle in rural communities.



### CASE STUDY

#### The Victorian Stroke Telemedicine (VST) program

The VST program enables fast clinical decision-making and stroke treatment, by connecting 16 rural and regional emergency departments to a 24/7 roster of Melbourne-based neurologists. The program's aims include:

- equity of care in rural and regional hospitals,
- fewer delays in diagnosis and treatment, and
- better access to thrombolysis and endovascular clot retrieval, shown to improve patient outcomes.

Using state-of-the-art bedside telemedicine equipment, VST neurologists are able to assess the patient and review brain imaging to provide rapid diagnosis and treatment advice.

Led by Florey Institute of Neuroscience and Mental Health, VST partner organisations include state and federal governments, Ambulance Victoria, Stroke Foundation and health services.

The VST program roll-out ensures most Victorians are within an hour's reach of a hospital with access to stroke expertise.



## 5. Investing in the future

New technologies allow us to transform the way services are designed and delivered in future. A fast-growing population means we cannot stand still on digital innovation, or translating ‘breakthrough’ research into practice. The health and human services sector needs to expand its capacity to support 10.1 million Victorians by 2051. The Victorian Government is investing in new ICT platforms to enhance service provision and continuing to strengthen our world leading medical research centres and alliances to translate clinical innovations into the delivery of better, more personalised care.

### DID YOU KNOW

Victoria has two of the four Australian health research centres internationally recognised for being among the world’s best for translating medical research into improved practice for patients.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Ensure we invest in the right ICT solutions now to facilitate innovations in how we plan and deliver digital services in the future. This includes interface solutions that support better management and use of 'big data', and integrated systems of care and support.
- › Continue to build our research capacity, capitalising on the existing strengths of Victoria's commercial, education, research, and health and human services sector.
- › Continue to support new health technologies and treatments, and adaptive changes within the workforce that will lead to life-saving treatment being delivered prior to hospital.



## CASE STUDY

### Monash Children's Hospital telesurgery project

Doctors treating the sickest children in Gippsland now have a direct video link to world leading experts in paediatric care via telehealth technology at the new Monash Children's Hospital.

The project has established a direct and live video link from Monash Children's to regional operating theatres and emergency departments at Latrobe Regional Hospital, Central Gippsland Health Service and Bairnsdale Regional Health Service. This means Gippsland doctors are able to quickly and securely get the very best advice and support from Monash's top paediatric surgeons, when they need to support better decision-making. This frees up ambulances by reducing avoidable patient transfers to Melbourne and reducing travel time and costs for families.

Gippsland doctors will also use the technology for professional development as they will be able to view operations at Monash Children's in real time and join face-to-face seminars, helping to attract and retain skilled doctors in Gippsland.

The project will be delivered from the new Monash Children's Surgical Telehealth Centre, which is located with the hospital's surgical simulation centre and operating suites.





# Justice and emergency services



## Introduction

Victoria's justice and emergency services are there when we need them most.

When danger or natural disasters strike, it is our police, our firefighters and our State Emergency Service workers that put their lives on the line to protect our state.

When crimes are committed, it is our police, courts and our corrections system that hold offenders accountable and ensure the community is protected. The efforts of all our justice and emergency services workers depend on access to fit for purpose facilities, safe, reliable equipment and information and communication technologies to help keep our state safe.

All Victorians should feel safe in their communities and in their homes. Victoria Police deal with all manner of crimes and their consequences for individuals and the community. Family violence is our number one law and order issue. That's why the Victorian Government is taking a strong stand, with a \$1.9 billion investment to implement recommendations made by Victoria's world-first Royal Commission into Family Violence. This will change the way that family violence issues are policed, how victims are supported and ensure perpetrators are held to account.

Family violence reforms build on the investments made in broader Victoria Police capability and resources. The Community Safety Statement reforms released in December 2016 outline a joint approach between the government and Victoria Police to detect and disrupt crime, reduce crime related harm in the community, and keep Victorians safe.

Those who commit crime in Victoria are tried through our courts in a fair and transparent way. Corrections Victoria and Youth Justice Service ensure that those who are sentenced or remanded by a court are securely imprisoned and that, if appropriate, they have opportunities to rehabilitate and reintegrate back into the community. More places within corrections and youth justice facilities are needed to cope with the prisoner population. The Victorian Government is making sure these places are available when they are needed.

With the extraordinary growth of Melbourne and Victoria's regional cities, new fire and emergency services infrastructure is being built and upgraded so that they can respond faster to emergencies and disasters. Surf Lifesaving Clubs are also being built and upgraded so that Victorians are better protected on our beaches.

### PRIORITIES OVERVIEW

Better infrastructure and service models, will help keep Victorians safe.

To deliver this, we're focusing on five priorities:

#### 1. Keeping Victorians safe

Nation-leading family violence reforms, and record-breaking Victoria Police investment are working to make our state safer.

#### 2. Building the corrections and youth justice facilities we need

We're upgrading and building new corrections and youth justice facilities to meet growing demand, and so Victorians feel safe.

#### 3. New and improved court services

We're expanding and upgrading courts to ease demand pressures and improve our court system.

#### 4. Deploying ICT innovations

Adopting new technologies enables justice and emergency services to offer Victorians the best service possible.

#### 5. Enhancing public safety

Updating and developing facilities, plus better management processes, will ensure Victorians feel supported in emergencies.



# 1. Keeping Victorians safe

Every Victorian has the right to feel safe, whether at home, work or in the community. We're leading the nation with reforms and infrastructure investment to address family violence. The Victorian Government has committed to a 10-year agenda of action and \$1.9 billion funding over four years to protect victims and hold perpetrators to account. We're also making a \$2 billion investment in policing across the state — the largest in Victoria's history. This includes more than 3,100 extra officers on the streets with the resources, and equipment to keep our state safe.

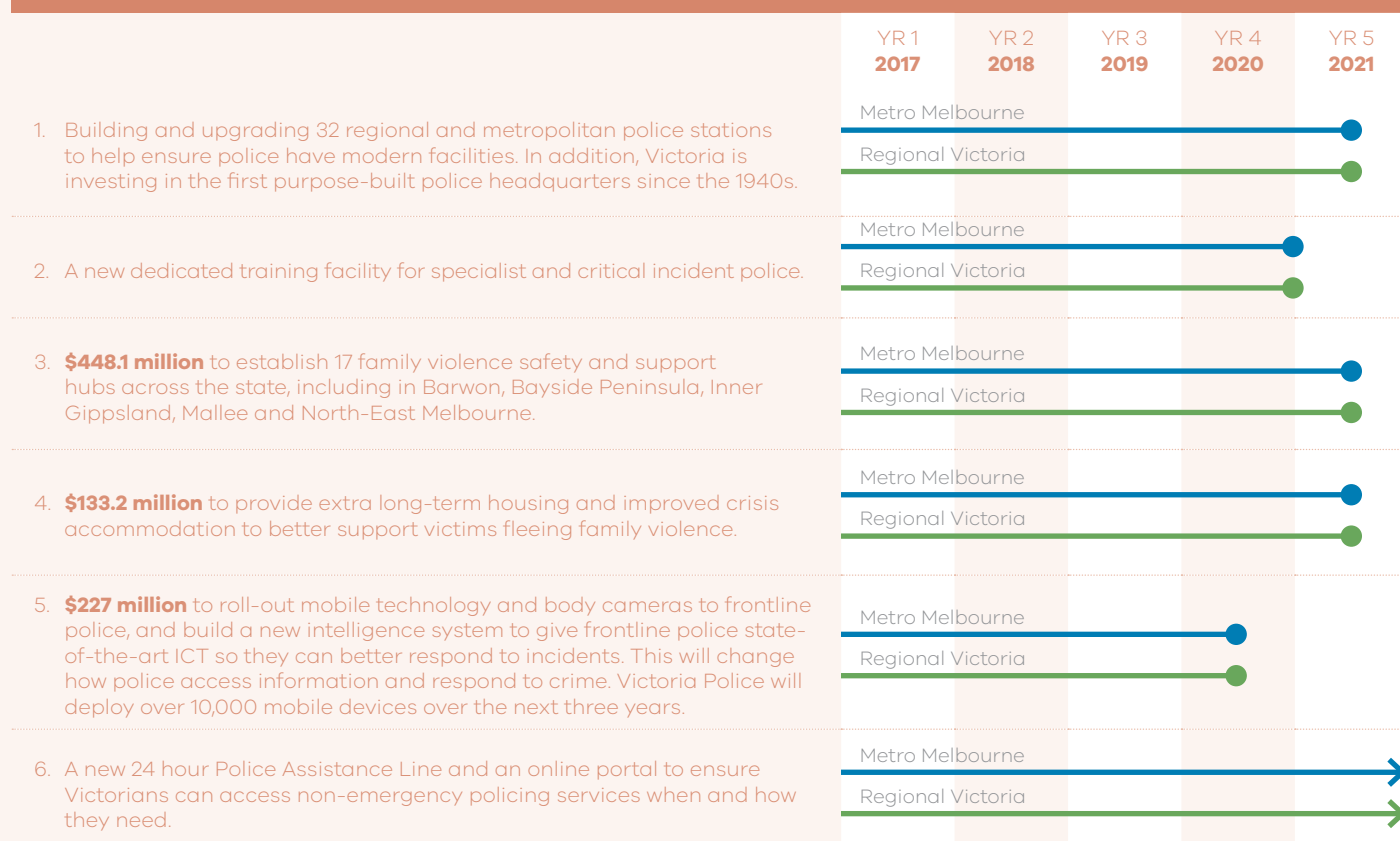
## DID YOU KNOW

Around one third of Victoria's 330 police stations, 184 police residences and 94 other support facilities have been upgraded in the past four years.

## DID YOU KNOW

Family violence is the single largest cause of homelessness for women.

### Projects and reforms





## FUTURE DIRECTIONS

- › Facilities and infrastructure investment considers the best way to achieve the directions of the Victorian Government's 10-year plan to end family violence.
- › Continue to support policy directives set out in the Community Safety Statement and the Victoria Police Capability Plan 2016–25. This will include improving capability through workforce reform, embracing technology to facilitate dispute resolution, address capacity constraints and service bottlenecks.
- › Invest in new and upgrade existing police stations across the state to keep pace with population growth and maintain a strong focus on the needs of local communities.
- › Continue to allocate resources in a balanced way between central, regional and local operational areas, with a focus on meeting the needs of Victoria as a whole.



## CASE STUDY

### Victoria's Royal Commission into Family Violence

The Royal Commission into Family Violence delivered its final report of 227 recommendations in March 2016. This was the culmination of a 13-month inquiry that examined how to prevent family violence, improve early intervention, support victims and hold perpetrators to account.

The Victorian Government committed to implementing every one of the 227 Royal Commission's recommendations, and in April 2016 provided \$572 million to begin work on the most urgent recommendations. The 10-year Plan for Change was launched in November 2016 to outline the government's strategy for implementing the recommendations.

In the 2017/18 State Budget, the government provided a further \$1.9 billion to start delivering on the plan, with measures including:

- \$448.1 million to establish 17 family violence safety and support hubs,
- more than \$270 million for victim assistance, support and counselling, and
- \$269.4 million to implement the specialist Family Violence Courts model in five Magistrates' Courts and expand legal assistance for victims.



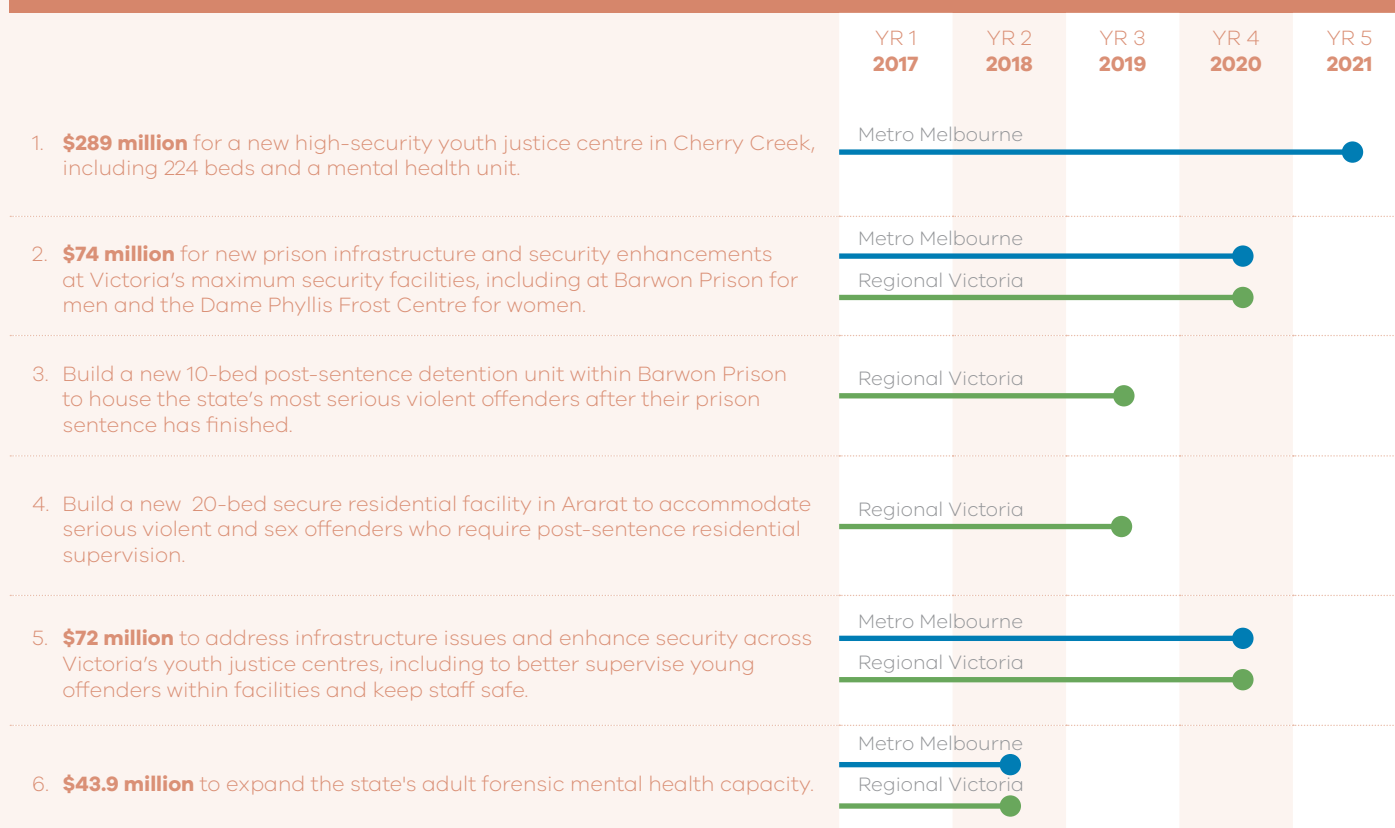
## 2. Building the corrections and youth justice facilities we need

Victorians expect that we keep serious offenders in custody to protect the community from harm. We're upgrading and building new corrections and youth justice facilities to ensure Victorians' safety. At the same time, we're making sure our corrections and youth justice systems have the security and supervision required to address offending behaviour. Victorians can be confident that the corrections and youth justice systems are properly resourced and future-proofed.

### DID YOU KNOW

Up to 100 jobs will be created in regional Victoria during the construction of a new secure facility. 50 further jobs will be created when the facility opens at the end of 2018.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Secure land to hold in reserve for future prisons to ensure capacity for new facilities as soon as we need them, in locations that are best suited for access by future staff and visitors.
- › Expand and better integrate our justice capabilities in both established and high growth areas.
- › Build on investments across government to improve mental health treatment services and enhance community safety, including new or expanded forensic mental health facilities.



## CASE STUDY Ravenhall Prison

Construction of a medium-security men's prison at Ravenhall will help meet the state's needs into the future. The project is being delivered under the Partnerships Victoria framework by GEO Group at a cost of \$2.5 billion (net present value) over 25 years. Operations at the facility are due to commence in late 2017.

Ravenhall Correctional Centre will initially accommodate 1,000 prisoners, but is being built with capacity to accommodate 1,300. Key features of the prison include a 75-bed Forensic Mental Health Unit and a 25-bed Close Supervision Unit, allowing for the effective management of prisoners with a mental illness.





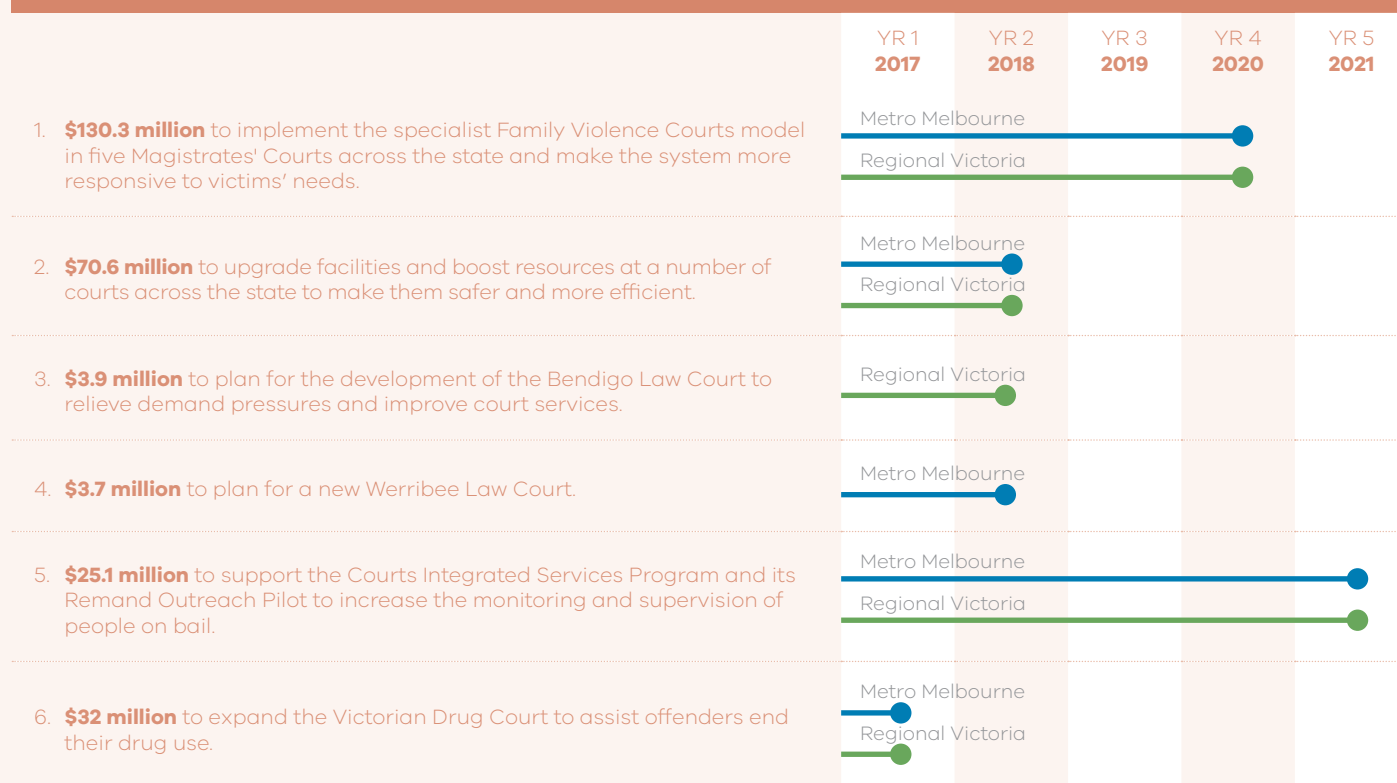
### 3. New and improved court services

Fair, accessible and responsive courts are essential for a well-functioning justice system. Victoria's courts, and the Victorian Civil and Administrative Tribunal, have been under growing pressure for a number of years as demand has outstripped their capacity to respond. To address this challenge, the Victorian Government is establishing new courts, upgrading facilities and boosting resources to ensure that we have a functioning and responsive justice system.

#### DID YOU KNOW

40% of new cases opened each year by Victorian community legal centres are now family violence cases, an increase of 490% in the last 10 years. Despite this, many victims still cannot access legal assistance when attending court to obtain an intervention order.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Under the guidance of the Strategic Asset Plan 2016–2031, continue to develop courts and judicial facilities in Melbourne CBD, metropolitan growth corridors (west, north and south-east) and regional areas to address demand and keep Victoria safer.
- › Rollout of the 10-year family violence plan including implementation of the specialist Family Violence Courts model at all headquarter Magistrates' Courts in Victoria.



## CASE STUDY

### Specialist Family Violence Courts

A person experiencing family violence can feel exposed and put at risk by being in the same space as the perpetrator while attending court. The specialist Family Violence Courts model will mean that relevant court matters can be heard together, reducing unnecessary delays and improving safety in our courts.

In an important step towards implementing one of the key recommendations of the Royal Commission into Family Violence, the Victorian Government is providing \$130.3 million to implement the specialist Family Violence Courts model at the Ballarat, Frankston, Shepparton, Moorabbin and Heidelberg Magistrates' Courts.

The courts will receive extra resources, including specialist support staff and security upgrades to keep victim survivors and their families safe. Additional support workers will also be located at the Melbourne Children's Court.



## 4. Deploying ICT innovations

Developments in information and communication technologies (ICT) are creating new possibilities for how services can be delivered. We need to ensure that our justice and emergency services provide the best response for our communities. The Victorian Government will implement and upgrade ICT capabilities for the police, courts and other government agencies to strengthen communications channels, court processing and data sharing between departments and agencies to keep Victorians safe.

### DID YOU KNOW

In 2014/15, Victoria's Emergency Services Telecommunications Authority answered 2.41 million Triple Zero calls for assistance, representing a call every 13 seconds.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Ensure ICT infrastructure is sufficiently utilised to improve service delivery and build capacity.
- › Ensure that the flow-on impact of ICT-related infrastructure planning undertaken by one entity is understood by other entities and the system more broadly.
- › Continue with the development of a national Public Safety Mobile Broadband capability to meet the sectors future information and communication management demands whilst ensuring interoperability across all states and territories.



## CASE STUDY

### Integration of emergency services

The emergency services sector is becoming increasingly integrated, as it progressively rolls out improvements to build sector capacity and interoperability.

This includes planning and approval of major capital and ICT infrastructure initiatives across our emergency services to ensure that the sector is coordinated and resilient.

Integration is increasingly important as functional lines between services can blur. For example, the Metropolitan Fire Brigade frequently provides medical emergency services to meet community expectations around service delivery.

Victoria Police is also moving towards a more integrated service delivery model, collaborating with entities that have not traditionally been seen as partners of the justice sector, such as the Department of Health and Human Services.





## 5. Enhancing public safety

When danger arises, we rely on our emergency services and the infrastructure they use to keep us safe. Victoria is making significant investments in upgrading facilities and establishing better management procedures. These actions will help our fire services, emergency services and surf life-savers to meet the demands of Victoria's growing population.

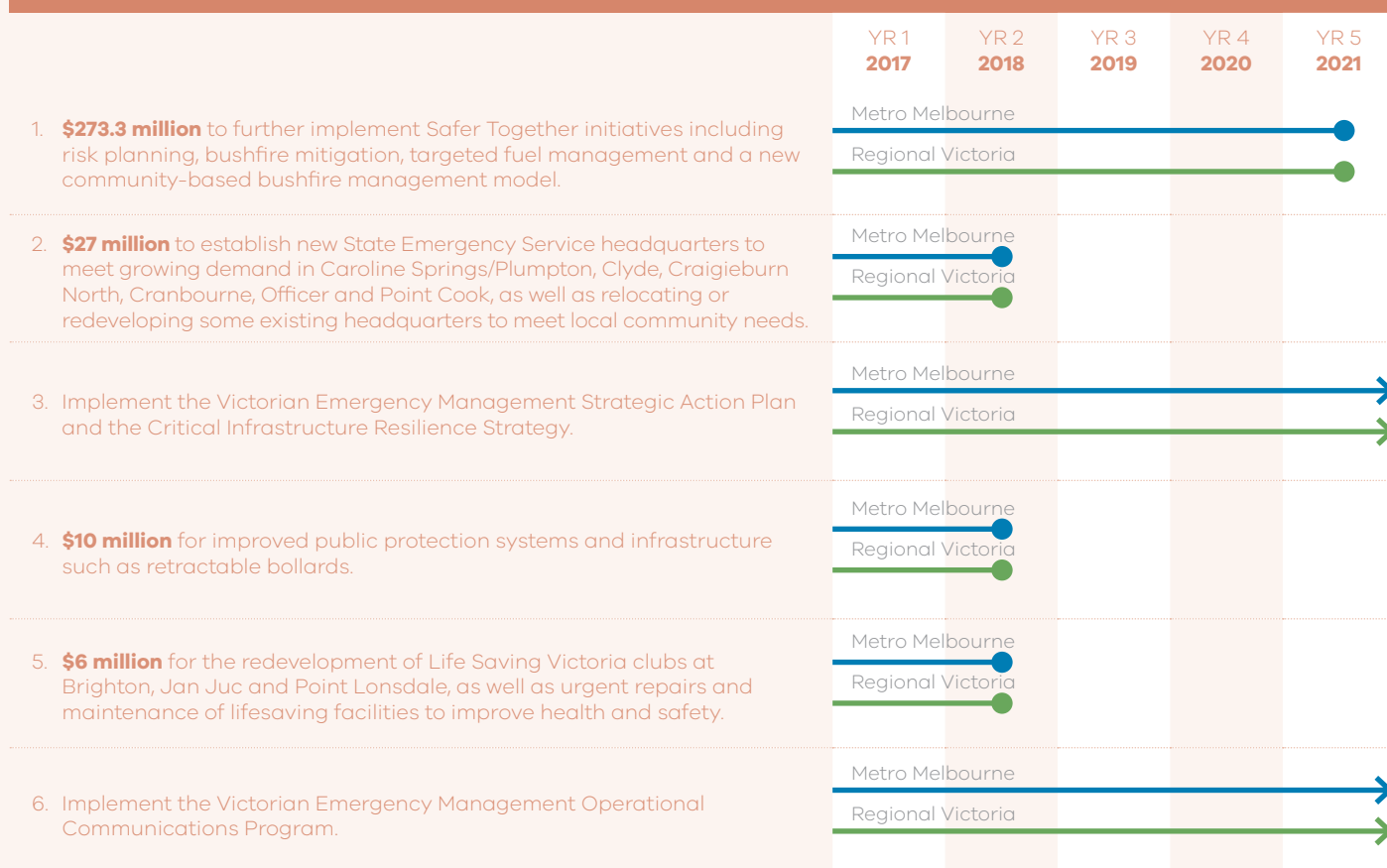
### DID YOU KNOW

In 2015/16 the State Emergency Service operated 142 units and responded to 17,835 calls or rescues across Victoria.

### DID YOU KNOW

The newly created Fire Rescue Victoria brings together 47 Metropolitan Fire Brigade stations and 35 Country Fire Authority integrated stations under one organisation.

#### Projects and reforms





## FUTURE DIRECTIONS

- › Continue to maintain and refurbish critical emergency services infrastructure, as well as high-demand courts and police facilities to enable safer, more accessible and functional protective services for Victorians.
- › Support an interconnected network of justice and emergency services. This includes implementing the Court Service Victoria's Strategic Asset Plan which recommends further developing the legal precinct in Melbourne's CBD.



## CASE STUDY

### State Emergency Services

Victoria's State Emergency Services (SES) is a volunteer-based emergency services organisation that responds to disasters like floods and storms.

In 2015/16, SES volunteers attended 21,221 incidents and contributed over 234,000 hours of their time to help Victorians in trouble. The service is based in six regions, works through 12 permanently staffed offices, with 142 units operating throughout Victoria. Local councils own approximately 89 per cent of facilities used by SES units.

The government recently committed \$14.9 million in addition to ongoing operational costs for SES units across the state, replacing the former model where local councils provided about 50 per cent of the funding.

The government is also investigating long-term leases for SES sites, usually located on council-owned land. This will help secure Victorian SES units' tenancy as part of the government's investment in headquarters and facilities.





Water





## Introduction

**Our growing population will place greater strains on the state's finite water resources in the years to come.**

We must plan and adapt to address the impacts of climate change, which is resulting in declining water availability and increasing the frequency and severity of extreme weather events. Water is vital to the success of many of Victoria's key industries, including our food and fibre sector, worth \$12.6 billion in 2013/14, the highest of any state or territory.

With the right plan in place, we can overcome these challenges and make sure that Victorians have access to safe, secure and affordable water supply. The Victorian Government has committed \$537 million to implementing the Water for Victoria plan, a comprehensive approach to all aspects of water management, its investment and reform that will guide future water policy.

Water for Victoria is about managing our water resources to help us to do more with less. Victoria's water grid and markets can be enhanced, enabling better sharing of water resources and getting water to where it is most needed. Better use of all water sources, such as the harvesting and treatment of stormwater and increasing use of fit for purpose recycled water, are helping to protect our urban environment, build resilience to climate change, improve service for farmers and other water users, and provide broader community benefits.

The Victorian Government is investing in a range of water infrastructure projects to further extend and upgrade the water grid. These include major projects in South Gippsland, the Wedderburn region Macalister District and the Desalination plant.

### PRIORITIES OVERVIEW

To protect our water resources and waterways for current and future generations, we're focusing on three priorities:

#### **1. Extending and using our water grid better**

Good water management means modernising our water grid, making sure we're using water efficiently, and securing additional water resources.

#### **2. Building resilience to climate change**

We will continue to enhance Victoria's water security, particularly building resilience of urban, regional and rural areas to manage the risks of climate change and droughts, as well as considering longer term options and investments to secure our water supply.

#### **3. Improving the health of waterways and catchments**

We're investing in infrastructure, developing preservation plans and working with local communities to protect our rivers and catchments.



# 1. Extending and using our water grid better

Good water management means modernising our water grid, making sure we're using water efficiently, and securing additional water resources. The Victorian Government is building and upgrading water-related infrastructure to ensure we are making best use of our water grid. This includes delivering water modernisation projects in irrigation districts and examining the feasibility of further upgrades. Providing more flexibility and support to farmers and communities will help them adapt and expand production with less water.

## DID YOU KNOW

The majority of surface water used in Victoria is for irrigation (around 79%), but many of our irrigation systems are old and inefficient, with some reported water losses up to 43%.

### Projects and reforms

|  | YR 1<br>2017   | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
|--|--|--------------|--------------|--------------|--------------|
| 1. <b>\$40 million</b> towards constructing a stock and domestic pipeline to increase water security in rural communities of the South West Loddon region. A \$20 million contribution from the Commonwealth Government has also been secured.   | Regional Victoria  |              |              |              |              |
| 2. <b>\$20 million</b> towards Macalister irrigation district modernisation phase 1B, to replace open channels with pipeline and automate remaining channels. A \$20 million contribution from the Commonwealth Government has also been secured.  | Regional Victoria  |              |              |              |              |
| 3. <b>\$16 million</b> to modernise Werribee and Bacchus Marsh irrigation districts, primarily through replacing existing open channels with pipeline.   | Regional Victoria  |              |              |              |              |
| 4. Progressing <b>\$8.2 million</b> of feasibility investigations into other grid extensions and upgrades across Victoria. This includes <b>\$1.1 million</b> from the Victorian Government, \$5.5 million from the Commonwealth Government and \$1.6 million from project proponents.       | Regional Victoria  |              |              |              |              |
| 5. <b>\$30 million</b> to extend the water grid in South Gippsland.  | Regional Victoria  |              |              |              |              |
| 6. <b>\$60.6 million</b> to help strengthen overall water management to meet the needs of all water users, including through a more flexible and sustainable water planning, entitlement and trading system.   | Metro Melbourne    |              |              |              |              |
|  | Regional Victoria  |              |              |              |              |
| 7. Placing a minimum 15GL annual water order for the next three years from the Victorian Desalination project to guarantee continued water security, more steady water prices for water customers, further restore Melbourne's storage levels and provide an ongoing buffer against drought. | Metro Melbourne    |              |              |              |              |
| 8. <b>\$19.7 million</b> to improve the operation of the water grid and market, including the establishment of a grid oversight function and the trial of the South Central water market.  | Metro Melbourne    |              |              |              |              |
|  | Regional Victoria  |              |              |              |              |



## FUTURE DIRECTIONS

- › Ongoing work to build and expand the water grid, connecting more communities and providing security of supply to as many Victorians as possible.
- › Provide strategic oversight for the enhanced use of our water grid to inform regional and system wide planning and investment decisions.
- › Explore options for additional connections to better use the state's water grid to more broadly share its water security benefits.
- › Monitor and refine the functioning of the water market, particularly to ensure it provides for the fair and efficient use of our water by all Victorians and meets future need.
- › Support continuous improvement of all our irrigation systems, as well as the development and adoption of new technologies and innovations across the whole water sector.



## CASE STUDY

### Lance Creek water security project

The current supply of South Gippsland Water's northern towns of Korumburra, Poowong, Loch and Nyora is confronting problems in relation to the increasing demands from local food processors, ageing assets and the need for improvement in water quality.

A \$30 million Victorian Government investment in the 2016/17 State Budget will significantly improve water security for the towns, which currently experience water restrictions due to isolated and small storage capacity in on-going dry conditions.

The project, to be delivered by South Gippsland Water at a total cost of \$43.4 million, will significantly reduce the likelihood of any future water restrictions while also improving drinking water quality.

Nyora, Loch, Korumburra and Poowong will be connected to Victoria's water grid for the first time ever, providing greater water security and quality drinking water in South Gippsland. These communities currently rely on water from small, rainfall-dependent local dams, but the project will change this by linking the towns to the Lance Creek supply system, which provides access to Melbourne's water supply system.

It will also provide a resilient and secure water supply to industrial and domestic customers.

This will underpin the future of food processing in the region by providing companies such as Burra Foods and GBP Exports – who currently employ 165 and 180 staff in the region respectively – with supply security and the confidence to further invest in their businesses.

The Lance Creek system incorporates existing infrastructure that connects to the Wonthaggi Desalination Plant pipeline, meaning that water can be sent from Melbourne's Cardinia Reservoir to the Lance Creek water treatment plant via the pipeline.

## 2. Building resilience to climate change

Securing Victoria’s water supply into the future requires us to plan for and respond to a changing climate. In addition to expanding and modernising our water grid, the Victorian Government is investing in initiatives that better prepare us for water scarcity and drought, ensuring water management keeps up with the best climate science and optimises our use of all available water sources.

### IN THE FUTURE

Average annual streamflow reductions of around 50% could occur in some catchments by 2065.

| Projects and reforms   |                   |              |              |              |              |
|--|-------------------|--------------|--------------|--------------|--------------|
|  | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
| 1. <b>\$21.2 million</b> to support Victoria's cities and towns to better manage their urban water use, including through water efficiency programs and by improving stormwater harvesting as well as the use of recycled water. | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 2. <b>\$5.7 million</b> towards better understanding of water management and leading development of climate change adaptation initiatives across our water system.   | Metro Melbourne   |              |              |              |              |
|  | Regional Victoria |              |              |              |              |
| 3. <b>\$7 million</b> for infrastructure to help drought-proof the Royal Botanical Gardens in Melbourne and Cranbourne with water supplied from the Yarra River and the Eastern Treatment Plant.                                 | Metro Melbourne   |              |              |              |              |



## FUTURE DIRECTIONS

- › Continue to invest in better understanding of climate change and its impact on water. Apply this to water planning, management, efficiency programs and savings across residential, business and community sectors.
- › The water sector will take leadership in the state's climate change mitigation and adaptation actions, equipped with the most up-to-date understanding of extreme weather and associated risks to water resources.
- › Optimise public investment in water infrastructure with better, more integrated planning and management across the water cycle. This includes recycling and stormwater harvesting to minimise environmental impacts and enable use of water in the landscape to promote liveability.
- › Amend planning and building regulations, develop place based targets and find the most effective mix of incentives to promote better management of stormwater.
- › Develop location targets to grow insight on the most effective mix of legislative, regulatory, financial and market incentives to promote better management of stormwater.



## CASE STUDY

### New water smart housing

A unique development is taking shape in the south east of Melbourne, where new homes will include a range of water saving features.

This residential development is showcasing the possibilities of harnessing all water sources — drinking, recycled and rainwater. Homes will include three types of purpose-made plumbing to lower household reliance on drinking water.

Houses on the estate will:

- Feature a high-tech rain to hot water system for bathing and showering that includes screening, filtering, treatment and temperature sensing devices.
- Connect to a pressure sewerage system that pumps wastewater to a water recycling plant within the estate, treats the water to Class A standard, and sends it back to each home for use in the garden, toilet or washing machine.
- Feature rainwater tanks with technology that receives weather forecasts — then releases water before heavy rainfall to minimise overflows or flooding in local waterways.
- Connect to a device that controls the water technology in each home, remotely monitors the pressure sewer and reads each home's water and energy use.

This project demonstrates how planning and innovation makes our urban environment more resilient to climate change by harnessing all available water sources.





### 3. Improving the health of waterways and catchments

The health, wellbeing and prosperity of Victorian communities depends on our rivers, wetlands, floodplains, estuaries and catchments. The health of these ecosystems and their value for all Victorians is at increasing risk from the impacts of urbanisation, industrial and farming activities as well as extreme weather events. The Victorian Government is investing in protective infrastructure and working with local communities to protect our rivers and catchments.

DID YOU KNOW 

44% of Victoria’s high value wetlands are in moderate, poor or very poor condition.

| Projects and reforms  |                   |              |              |              |              |
|---|-------------------|--------------|--------------|--------------|--------------|
|   | YR 1<br>2017      | YR 2<br>2018 | YR 3<br>2019 | YR 4<br>2020 | YR 5<br>2021 |
| 1. <b>\$222 million</b> to improve and monitor the health of our waterways and catchments, including <b>\$90 million</b> for on the ground investment in 36 regional waterways; <b>\$70 million</b> to manage, deliver and monitor Victoria's environmental water; <b>\$30 million</b> to deliver the regional riparian action plan; <b>\$10 million</b> to improve the health of Gippsland Lakes; <b>\$22 million</b> to encourage community involvement in protecting land, water and biodiversity in catchments. | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |
| 2. Progressing projects, including environmental watering works and measures, to better achieve outcomes through the Murray Darling Basin Plan in northern Victoria.  | Regional Victoria |              |              |              |              |
| 3. Introducing legislation and stronger planning controls to protect groundwater and surface water from pollution and degradation. This includes <b>\$2 million</b> for a new State Environmental Protection Policy, <b>\$6.5 million</b> towards protecting the Yarra River (Birrarung) and <b>\$2 million</b> for Ramsar wetlands.  | Metro Melbourne   |              |              |              |              |
|   | Regional Victoria |              |              |              |              |



## FUTURE DIRECTIONS

- › Ongoing investment in riparian programs, environmental waterworks and measures and on-ground works.
- › Better monitor and report on the benefits of environmental watering and waterway health to determine priority areas for protection and adaptation into the future.
- › Undertake consultation with local communities and waterway managers, including Traditional Owners on water planning and management, and develop partnerships with regional partners to make sure the best outcome is achieved.
- › Track the development of new technologies and innovations in waterway management practice. This can improve river bank stability, the quality of water supply and the health of aquatic environments.
- › Continue to balance water recovery for the Murray Darling Basin by prioritising projects that meet Murray Darling Basin Plan obligations with water savings and environmental offsets, rather than reducing the consumptive pool.



## CASE STUDY

### A vision for the future at Lake Condah

Lake Condah, or Tae Rak, as it is traditionally known, is part of the Budj Bim National Heritage Landscape listed in 2004. The Gunditjmara people likened the seasonal rising and falling of water in Tae Rak to the beating heart of the Budj Bim landscape.

The stone eel trap systems used by the Gunditjmara for thousands of years are the oldest example of freshwater aquaculture in the world; the landscape is therefore recognised as an internationally significant site. Unfortunately, the construction of a rural drainage scheme in 1954 damaged this vital place.

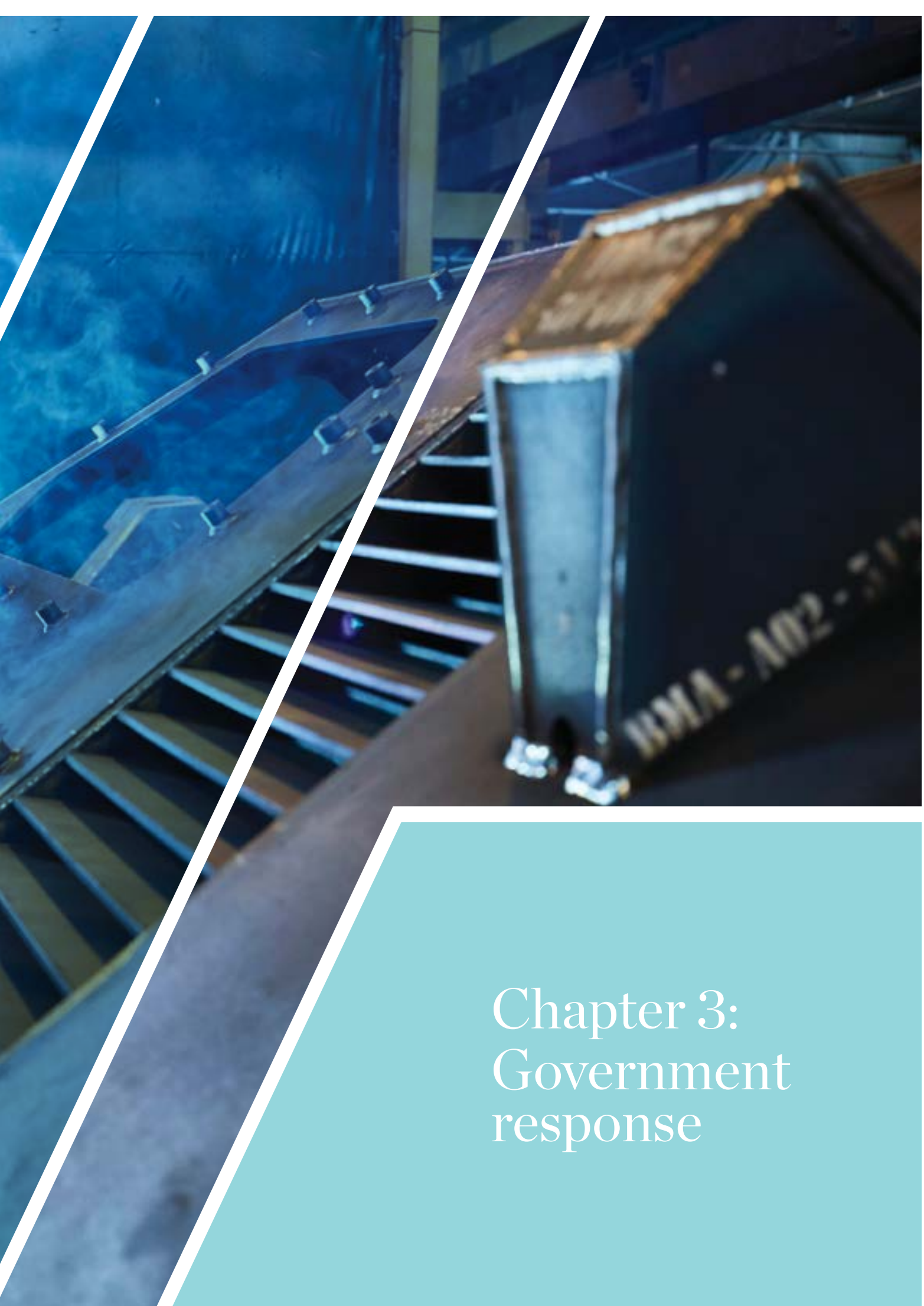
After 40 years of effort, a weir constructed in 2010 restored the lake. This brought healing to the Budj Bim landscape and the Gunditjmara people. A key part of the weir construction was the promotion of Aboriginal employment.

Reactivation of the eel trap systems now provides commercial opportunities along the Budj Bim landscape as well as cultural tourism to Lake Condah.









## Chapter 3: Government response







In December 2016, Infrastructure Victoria presented the 30-year Infrastructure Strategy to government, which included 137 recommendations. In total 134 of the 137 recommendations (98 per cent) have been supported in full, in part or in principle.

## From strategy to action

Each recommendation has been supported in full, in part or in principle is responded to in this chapter, with a brief explanation of the position and next steps toward implementation, if applicable. Recommendations are organised by the nine sectors within this plan. The accompanying Technical Report provides added context to the sector priorities and indicates where projects and reforms meet the Victorian Infrastructure Plan's four overarching objectives: social, environmental, economic and innovation outcomes.

- › **Supported** — the recommendation is supported in full, is fully funded and will be implemented in its entirety.
- › **Supported in principle** — broad direction of the recommendation is supported, but specific actions are subject to further budget consideration (either over the forward estimates or beyond) or external factors (example: Commonwealth funding).
- › **Partly supported** — the objective of the recommendation is supported, although for optimal outcome, implementation actions may vary from Infrastructure Victoria's recommendation.

Only two recommendations are not supported. These are:

- › **Energy pricing** (18.1.1)  
This does not align with existing government policy. The government will be reviewing the effectiveness of existing voluntary cost-reflective pricing arrangements in 2020, at the end of the current regulatory period.
- › **Transport network pricing** (10.2.2, 11.2.2, 13.1.2)  
The Victorian Government will not introduce new tolls to existing roads. However, options for demand management will be considered as part of long-term integrated transport planning.

One recommendation is subject to future consideration:

- › **Brown coal transition** (18.2.1)  
The government is committed to supporting the transition of Latrobe Valley workers following the announcement of Hazelwood's closure. The Latrobe Valley Authority has been established to lead the government response and manage the transition and future economic development in this area.

# Infrastructure Victoria recommendations

The following table summarises the relationship between Infrastructure Victoria's recommendations and the government's priorities in each sector. A more detailed view of the government response for each recommendation follows this table.

| Sector & government priorities              | Relevant Infrastructure Victoria Recommendation   |
|---|---|
| <b>Planning and infrastructure</b>          |   |
| Planning and infrastructure                 | 1.1.1, 1.1.2, 1.5.1, 2.4.1, 10.1.1, 10.1.2, 11.1.1, 11.1.2  |
| <b>Transport</b>                            |   |
| 1. Making the most of existing assets       | 2.1.4, 4.1.1, 4.1.2, 4.1.3, 4.2.1, 6.1.2, 6.1.3, 10.3.1, 10.3.2, 10.4.2, 10.4.3, 10.4.4, 10.4.5, 10.4.6, 10.5.1, 10.6.1, 10.6.4, 10.9.1, 11.3.1, 11.3.2, 11.3.4, 11.4.1, 12.2.1, 12.2.3, 12.2.4, 12.2.10, 13.4.4  |
| 2. Building for the future                  | 1.2.1, 1.3.2, 1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.3.7, 1.3.8, 1.3.9, 10.4.7, 10.5.2, 10.8.1, 10.8.2, 10.8.3, 10.8.4, 10.8.5, 10.8.6, 10.9.2, 10.10.1, 10.10.2, 11.3.3, 11.4.2, 11.5.1, 11.5.2, 11.5.3, 11.5.4, 11.5.5, 11.5.6, 11.5.7, 11.5.8, 12.3.1, 12.3.2, 13.5.2, 13.5.3, 13.5.4 |
| 3. Connecting regional Victoria             | 2.1.1, 2.1.2, 12.2.5, 12.2.7, 12.2.8, 12.2.9, 12.3.3, 13.3.1, 13.3.2, 13.3.3, 13.3.4, 13.4.1, 13.4.2, 13.4.3, 13.5.1, 13.5.5  |
| 4. Developing smarter transport solutions   | 1.3.1, 2.1.3, 6.2.1, 6.2.2, 10.2.1, 10.4.1, 10.6.2, 10.6.3, 10.7.1, 10.7.2, 10.7.3, 11.2.1, 11.3.5, 12.2.2, 12.2.6, 13.1.1, 13.2.1, 13.2.2, 13.2.3, 19.1.3, 19.2.2, 19.2.4  |
| <b>Culture, sport and community</b>         |   |
| 1. Maintaining Victoria's competitive edge  | 4.3.1, 5.1.1  |
| 2. Planning for a growing population        | 1.4.1, 1.4.3, 1.4.5, 4.3.2, 5.1.2, 5.2.1, 5.4.1, 5.4.3, 9.4.3, 19.2.3,  |
| 3. Growing participation                    | 1.4.2, 2.3.1, 4.2.2, 5.2.2,   |
| 4. Maintaining our current facilities       | 1.4.4, 2.3.2, 5.4.2   |
| <b>Digital connectivity</b>                 |   |
| 1. Improving digital access across Victoria | 12.1.3, 19.1.2  |
| 2. Supporting use of digital technologies   | Related recommendations and responses detailed on pages 146–147   |
| 3. Transforming state assets                | 19.1.1  |
| <b>Education and training</b>               |   |
| 1. Catering for a growing population        | 9.1.1, 9.3.1  |
| 2. Creating inclusive shared spaces         | 1.4.7, 2.3.3, 5.3.1, 9.3.3, 9.4.2   |
| 3. Maximising use of technology             | 2.2.2, 9.2.1, 12.1.4  |
| 4. Developing skills for tomorrow           | 9.4.1   |
| 5. Improving education infrastructure       | 9.3.2   |

| Sector & government priorities                                   | Relevant Infrastructure Victoria Recommendation          |
|--|--|
| <b>Energy</b>  |  |
| 1. Ensuring efficiency and affordability                         | 18.1.2, 18.1.3   |
| 2. Protecting our energy security                                | 18.2.2   |
| 3. Targeting net zero emissions                                  | 18.2.3   |
| <b>Environment</b>   |  |
| 1. Protecting Victoria's biodiversity                            | 1.4.6, 4.2.3, 16.3.1, 16.3.2                             |
| 2. Managing our parks  | 16.1.1, 16.2.1, 16.2.2                                   |
| 3. Taking action on climate change                               | 19.1.4   |
| 4. Improving resource recovery and waste management              | 15.1.1, 15.1.2, 15.1.3, 15.2.1, 15.2.2                   |
| <b>Health and human services</b>                                 |  |
| 1. Building a proactive system that anticipates demand           | 3.2.2, 3.2.4, 3.4.1, 7.2.1, 7.4.1, 7.4.3                 |
| 2. Driving system-wide reform for safer, better services         | Related recommendation and response detailed on page 172 |
| 3. Integrating care across the health and social service system  | 3.2.1, 3.2.3, 3.3.1, 3.3.2, 8.3.3, 12.1.7                |
| 4. Improving equity and access                                   | 6.1.1, 7.1.1, 7.3.1, 7.3.2, 7.4.2                        |
| 5. Investing in the future                                       | 2.2.3, 3.1.1, 3.1.2, 12.1.5, 12.1.6                      |
| <b>Justice and emergency services</b>                            |  |
| 1. Keeping Victorians safe                                       | 2.2.1, 8.1.3, 8.2.1, 12.1.1                              |
| 2. Building the corrections and youth justice facilities we need | 8.3.1  |
| 3. New and improved court services                               | 8.1.1, 8.1.2, 8.3.2, 8.3.4                               |
| 4. Deploying ICT innovations                                     | 8.2.2, 8.2.3, 12.1.2                                     |
| 5. Enhancing public safety                                       | 19.2.1   |
| <b>Water</b>   |  |
| 1. Extending and using our water grid better                     | 14.1.1, 14.1.2, 14.1.3, 14.3.1                           |
| 2. Building resilience to climate change                         | 14.2.1, 14.2.2, 17.1.1, 17.2.1                           |
| 3. Improving the health of waterways and catchments              | 16.3.3, 17.1.2, 17.2.2                                   |





# Planning and infrastructure

Planning is essential to ensure Victorians have the right infrastructure and services into the future. Infrastructure Victoria made recommendations to assist with infrastructure and population planning. The intent of Infrastructure Victoria's recommendations are shared by existing policies, including Plan Melbourne and the Value Creation and Capture Framework.

| Recommendation  | Position         | Rationale  |
|---|------------------|--|
| <p>Development in/around employment centres</p> <p>0–5 years</p> <p>1.1.2, 10.1.2, 11.1.1</p>   | Partly supported | <p>Government supports these recommendations in part, however will broaden its focus to encourage development in areas identified for growth more broadly across Melbourne and regional cities, to align with the vision of Plan Melbourne. The pipeline of infrastructure provision outlined throughout this plan further supports development in established areas and in/around employment centres.</p>   |
| <p>Development in established areas</p> <p>0–5 years</p> <p>1.1.1, 10.1.1</p>                   |                  |  |
| <p>Government service/ infrastructure planning</p> <p>0–5 years</p> <p>1.5.1, 2.4.1, 11.1.2</p> | Partly supported | <p>Government is committed to improving integration of service and infrastructure planning. Integrated infrastructure planning occurs through the production of Precinct Structure Plans for new developments in growth corridors. A further 17 PSPs are committed for completion by December 2018 and the guidelines for PSPs are being reviewed as one of the immediate actions out of Plan Melbourne. Local government is already closely involved in these processes.</p> <p>Infrastructure is being funded through State Budgets, developer contributions and the Growth Areas Infrastructure Contributions. Growth Corridor Plans have been produced for each corridor and are currently being updated.</p> <p>In addition, the Premier has appointed a Minister for Suburban Development who will be producing five year Jobs Services and Infrastructure plans for each of the six sub-regions in Plan Melbourne. These will ensure the respective forward plans for major departments and agencies are better coordinated.</p> <p>The Regional and Metropolitan Partnerships enable regions to directly advise government on local priorities. The Value Creation and Capture Framework has also been released to deliver better community outcomes from infrastructure investment.</p> |



# Transport

## PRIORITY 1 – MAKING THE MOST OF EXISTING ASSETS

As Victoria's population grows and demand for transport infrastructure and services increase, optimising and efficiently maintaining our existing assets becomes critical. Infrastructure Victoria made several recommendations in regard to improving the transport system. Government broadly supports these initiatives and is committed to ensuring the most efficient use of, and investment in, the transport network. We are making better use of our current assets by upgrading road and rail infrastructure, and bus services, to improve travel times and safety for all users. We are also investing in maintaining our transport system for the future. Delivering improvements to cycling and walking networks are also supported.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Cycling corridors/walking improvements<br>0–15 years<br>4.1.3, 10.3.2 | Supported in principle | Government supports the intent of this recommendation, and full implementation over 0–15 years will be considered as part of future budgets.  |
| Cycling end-of-trip facilities<br>0–5 years<br>4.1.1                  | Supported              | Government supports this recommendation. Changes to the planning system will be undertaken within 0–5 years, subject to an analysis process and alignment with Victoria's Cycling Strategy, currently in development.                                     |
| Cycling/walking data<br>0–5 years<br>4.1.2, 10.3.1                    | Supported in principle | Government supports the intent of this recommendation, subject to finalisation of the Victorian Cycling Strategy, currently in development. Any potential capital works associated with this recommendation will be considered as part of future budgets. |

| Recommendation   | Position               | Rationale   |
|--|------------------------|---|
| Cycling/walking in established areas<br>0–5 years<br>4.2.1 | Supported in principle | Government supports the intent of this recommendation, subject to further investigation, finalisation of Victoria's Cycling Strategy and future budget consideration.   |
| Doncaster bus system<br>5–10 years<br>10.6.4               | Supported in principle | Government agrees with the intent of improving the existing bus system, but as the recommendation is over 5–10 years further investment will be considered as part of future budgets.   |
| Melbourne Airport bus<br>0–10 years<br>10.9.1, 11.4.1      | Partly supported       | Works are underway to increase road capacity as part of CityLink Tulla Widening project that will improve bus travel to the airport. Higher levels of on-road prioritisation will be assessed in the context of the broader network and long-term airport access planning.  |
| Metropolitan bus network<br>0–10 years<br>10.4.5, 11.3.4   | Partly supported       | The intent of this recommendation is supported and is being addressed by the overhaul of existing bus contracts, however a 'clean slate' is not possible due to existing contractual agreements — new contracts will be negotiated with bus operators as contracts come up for renewal.   |
| Metropolitan rail stations<br>5–30 years<br>10.4.6         | Supported in principle | Government supports the intent of this recommendation and a range of existing projects are delivering upgraded or new stations. As this recommendation is over 30-years, its full scope will require consideration in future budgets.   |
| Metropolitan rail upgrades<br>0–5 years<br>10.4.4          | Supported              | Government supports this recommendation. The metropolitan rail network plan is being refreshed as part of strategic integrated transport planning.  |
| Metropolitan rolling stock<br>0–5 years<br>10.5.1          | Supported              | Government supports this recommendation. Transport For Victoria is developing plans for future rolling stock orders and improvements to provide greater certainty for industry and ensure smoother provision of trams and trains to meet Melbourne's needs.   |
| Public transport accessibility<br>0–5 years<br>6.1.3       | Supported              | Government supports this recommendation to improve the accessibility of the public transport network. We will continue to implement improvements, focusing on investments with big, network-wide impact and maximising improved disability access. Planning processes have been streamlined to facilitate more accessible tram stops. |
| Regional rail upgrades<br>0–5 years<br>12.2.4              | Supported              | Government supports improving all forms of regional transport and will continue to implement the initiatives identified with regional communities. Regional rail upgrades are a component of the broader rail network and will be considered as part of integrated transport planning.  |



| Recommendation   | Position               | Rationale  |
|--|------------------------|--|
| <p>Regional road maintenance</p> <p>5–30 years</p> <p>2.1.4, 12.2.10, 13.4.4</p> | Partly supported       | Government supports the intent of this recommendation and considerable work is already underway in relation to road maintenance and upgrades. Potential extra support for regional local governments will need further investigation to understand current funding issues and potential long-term solutions. As this recommendation covers 30 years, future budget consideration will be required to address the full scope. |
| <p>Regional rolling stock</p> <p>0–5 years</p> <p>12.2.3</p>                     | Supported              | Government supports this recommendation. Transport For Victoria is developing a forward plan of rolling stock orders and improvements to provide greater certainty for industry and ensure smoother provision of trains to meet Victoria's needs.  |
| <p>Road asset management</p> <p>0–5 years</p> <p>10.6.1, 11.3.1, 12.2.1</p>      | Supported in principle | Government supports the intent of this recommendation, and work is already underway to categorise maintenance regimes that meet service levels through Whole of Life Asset Management Planning. Further budget consideration will be required to address the full scope of this recommendation. VicRoads also undertakes regular reviews of the arterial road network, consistent with the Road Management Act.              |
| <p>Train timetabling</p> <p>0–5 years</p> <p>10.4.2</p>                          | Supported              | Government supports this recommendation to deliver service uplifts, particularly lines in the west of Melbourne. Schedule changes will continue to be progressively introduced to increase the number of services. Service increases and corresponding changes to timetables will be sequenced to build on and take advantage of new infrastructure as it is introduced on the network.                                      |
| <p>Transport interchanges</p> <p>0–5 years</p> <p>6.1.2, 10.4.3, 11.3.2</p>      | Supported              | Government supports this recommendation. This initiative is consistent with Plan Melbourne, and aligns with the anticipated future increased role of transport interchanges in a 'metro-style' rail system. Identification of key interchanges, functionality and scope of potential improvements will be developed within 0–5 years.  |



As the population grows and demand for transport infrastructure and services increase, optimising and maintaining our existing assets becomes critical.



### PRIORITY 2 – BUILDING FOR THE FUTURE

Continued investment in expanding our transport network will provide foundation for the economic and social growth of the state. Infrastructure Victoria made recommendations for several new road, rail and bus infrastructure and services, including a number of longer term initiatives. Many of these infrastructure initiatives are supported in principle, and will rely on further strategic planning and feasibility studies to identify, prioritise and develop options before implementation to ensure we make the best investments.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| 10-car metropolitan trains<br>10–15 years<br>10.5.2     | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 10–15 years, implementation will be considered as part of future budgets. |
| City Loop reconfiguration<br>15–30 years<br>10.10.1     | Supported in principle | Government supports the intent of this recommendation. As implementation is over 15–30 years, it will need to be considered as part of future budgets.          |
| Clyde rail extension<br>10–15 years<br>1.3.7, 10.8.4    | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 10–15 years, implementation will be considered as part of future budgets. |
| Employment centre arterial roads<br>0–5 years<br>11.5.1 | Supported              | Government supports this recommendation. This initiative aligns with Plan Melbourne and with integrated transport planning work currently being undertaken.     |

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| <p>Employment centre mass transit</p> <p>0–15 years</p> <p>11.5.4</p>   | Supported in principle | <p>Government supports the intent of this recommendation. Ongoing planning for major employment centres will determine the types of transit links required, the most appropriate solutions and timing. Supporting major employment centres in Melbourne and regional Victoria is a fundamental role of the transport system. Strategic integrated transport, economic development and land use planning will help determine priorities and potential solutions. Any capital works will be considered as part of future budgets. Any potential capital works associated with this recommendation will be considered as part of future budgets.</p> |
| <p>Eastern Freeway–Citylink–Western Ring Road connectivity</p> <p>0–5 years (anticipated construction/operation period 15–30 years)</p> <p>11.5.8, 13.5.4</p> | Partly supported       | <p>The government is moving forward with the West Gate Tunnel, which creates a vital second river crossing and delivers improved transport connections between CityLink and the Western Ring Road. Past business case modelling did not support the development of an Eastern Freeway to CityLink connection, and the previous design had severe environmental and social impacts. There is no case therefore to commence planning works to facilitate this project, given other much higher transport priorities.</p>  |
| <p>Fishermans Bend tram link</p> <p>5–10 years</p> <p>1.2.1, 10.8.1</p>   | Supported in principle | <p>Government supports the intent of this recommendation. As this recommendation is over 5–10 years, investments will be considered as part of future budgets.</p>  |
| <p>Growth area local buses</p> <p>0–15 years</p> <p>1.3.2, 11.5.2</p>   | Supported in principle | <p>Government supports the intent of this recommendation, and supports the expansion of bus services to connect growing communities with employment, education and social opportunities. As the recommendation is over 0–15 years, full implementation will be considered as part of future budgets.</p>  |
| <p>High-capacity signalling</p> <p>5–30 years</p> <p>10.4.7</p>   | Supported in principle | <p>Government supports the intent of this recommendation. A High Capacity Signalling project is being rolled out to prepare the network for future demand. The program will require continual review to ensure its deployment schedule reflects demand.</p>   |
| <p>Level crossing removals</p> <p>0–5 years</p> <p>11.3.3</p>   | Supported              | <p>Government supports this recommendation. A prioritisation framework that considers updated data, including land use, should be considered as part of any future decisions to expand the level crossing removals program, noting there is no financial commitment beyond the current schedule.</p>  |
| <p>Melbourne Airport rail link</p> <p>15–30 years</p> <p>10.9.2, 11.4.2</p>   | Supported in principle | <p>Government supports the intent of the Melbourne Airport rail link. The CityLink Tullamarine Freeway Widening project will provide extra capacity in the near future for the airport bus. Funding has been provided for an airport rail study and will work with the Commonwealth and private sector to explore ways to fund and deliver the project. As the build component of this recommendation is over 15–30 years, implementation will be considered as part of future budgets.</p>   |
| <p>Melbourne Metro — future stages</p> <p>0–5 years (anticipated construction/operation period 15–30 years)</p> <p>10.10.2</p>                                | Supported              | <p>Government supports this recommendation. Future metropolitan rail extensions will be assessed as part of integrated transport planning. Trigger points will be identified as part of this work.</p>  |



| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Melton rail electrification<br>10–15 years<br>1.3.6, 10.8.3   | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 10–15 years, implementation will be considered as part of future budgets.   |
| North East Link<br>10–15 years<br>11.5.6, 13.5.2  | Supported              | Government has committed to this project, including funding for development to procurement. Construction will require future funding by a mixture of government contributions and tolls, with final funding arrangements determined as part of the detailed planning process.   |
| Outer metropolitan arterial roads<br>5–15 years<br>1.3.5, 11.5.5  | Supported in principle | Government supports the intent of this recommendation, and the Roads for Growing Communities Package will upgrade arterial roads in Melbourne's west. As this recommendation is over 5–15 years, implementation of its full scope will be considered as part of future budgets.   |
| Outer Metropolitan Ring Road<br>15–30 years<br>11.5.7, 13.5.3   | Supported in principle | Government supports the intent of this recommendation, and work is already underway in relation to the longer term network development. As the build component of this recommendation is over 15–30 years, full implementation will be considered as part of future budgets, noting delivery will be staged and may extend beyond the 30-year period. |
| SmartBus network<br>0–15 years<br>1.3.3, 11.5.3   | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 0–15 years, implementation will be considered as part of future budgets.  |
| Wallan rail electrification<br>15–30 years<br>1.3.8, 10.8.5   | Supported in principle | Government supports the intent of this recommendation. As implementation is over 15–30 years, investment will need to be considered as part of future budgets.  |
| Wollert transport links<br>0–5 years (anticipated construction/operation period 15–30 years)<br>1.3.9, 10.8.6 | Supported              | Government supports this recommendation and will commence a feasibility study within five years.  |



Continued investment in expanding our transport network will create the foundations that will support the economic and social growth of the state.

## PRIORITY 3 – CONNECTING REGIONAL VICTORIA

Supporting regional growth by providing and improving transport connections for people and goods across Victoria is a key priority. To meet the needs of all people moving around regional Victoria, we are undertaking integrated transport planning, focussing on improving regional transport, and with regional communities to identify initiatives. Government is also developing a broader freight strategy for Victoria as part of planning for the increasing freight task.

| Recommendation   | Position               | Rationale   |
|--|------------------------|---|
| Freight precincts<br>0–5 years<br>13.3.2   | Supported in principle | Government agrees with the intent of this recommendation. Implementation will need to be considered in the context of Victoria's freight strategy (in development), Plan Melbourne and a 0–10 year timeframe. Further budget consideration is required in future years to address the full scope of the recommendation.                                 |
| Geelong/Werribee/<br>Wyndham rail<br>5–15 years<br>1.3.4, 10.8.2, 12.3.1   | Supported in principle | Government supports the intent of this recommendation. As this recommendation covers years 5–15, implementation will be considered as part of future budgets.   |
| High Productivity Freight<br>Vehicles<br>5–15 years<br>13.4.3  | Supported in principle | Government supports the intent of this recommendation. Work is underway with the Commonwealth Government to develop the Higher Productivity Freight Vehicle network and deploy improvements to roads to enable this network. Further budget consideration is required in future years to address the full scope of this recommendation over 5–15 years. |
| Inland Rail<br>0–5 years (10–15 years<br>anticipated completion of<br>potential future project/<br>reform)<br>13.5.1 | Supported              | Government supports the development of the Inland Rail project with the Commonwealth Government.  |
| Long-distance rail<br>services<br>0–10 years<br>12.2.9   | Supported in principle | Government supports the intent of this recommendation. A range of recent initiatives make progress against this recommendation. As this recommendation is over 10 years, implementation of its full scope will require future budget consideration, as well as further investment in rolling stock.   |
| Port rail shuttle<br>0–5 years<br>13.3.1   | Supported in principle | Government supports the intent of this recommendation. Delivery of the port rail shuttle will depend on the Port Access Strategy, which is being produced by the Port of Melbourne operator.  |
| Regional city local buses<br>0–10 years<br>12.2.7  | Supported in principle | Government supports the expansion of bus services across regional Victoria to improve local mobility. Existing work and new funding partly address this recommendation. As this recommendation is over 10 years, full implementation will be considered as part of future budgets.  |
| Regional coaches<br>0–10 years<br>21.2, 12.2.8   | Supported in principle | Government supports the expansion of coach (or similar) services between regional towns and cities to support demand. The Shepparton/Seymour shuttle will partly address this recommendation and implementation over 10 years will be considered as part of future budgets.   |

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Regional highways<br>0–5 years<br>2.1.1, 12.2.5, 13.4.1   | Partly supported       | Government supports evidence based processes for prioritisation. This recommendation is partly addressed through the current assessment and prioritisation of road upgrades. A complex set of factors are considered in the identification and prioritisation of projects, including opportunities for Commonwealth co-funding.                       |
| Regional rail eastern corridor<br>0–5 years (anticipated construction/operation period 15–30 years)<br>12.3.3, 13.5.5 | Supported              | Government supports this initiative and is investing \$435 million to upgrade the Gippsland line, to deliver critical enabling works for more frequent and reliable services. Future rail upgrades and trigger points will be identified through integrated transport planning. Any future build components will require future budget consideration. |
| Regional rail gauge standardisation<br>5–10 years<br>13.4.2   | Partly supported       | Government supports standardisation where there is a strong economic case, but does not support blanket standardisation of the entire regional rail network. Standardisation is already underway through the Murray Basin Rail project and other freight lines.   |
| Torquay transport links<br>0–5 years (anticipated construction/operation period 15–30 years)<br>12.3.2                | Supported              | Government supports this recommendation with funding announced under the Regional Rail Revival for the corridor reservation. Detailed planning to support Torquay to Geelong movements is underway including for the spur line, noted in the Regional Rail Revival.   |
| Webb Dock rail access<br>0–5 years (10–30 years anticipated completion of potential future project/reform)<br>13.3.4  | Supported in principle | Government supports the intent of this recommendation. Assessment of the Port Access Strategy, being produced by the Port of Melbourne operator, will determine how government is best placed to respond and assist. Rail access to Webb Dock will be volume driven.  |
| Western Interstate Freight Terminal<br>0–5 years (anticipated construction/operation period 5–15 years)<br>13.3.3     | Supported in principle | Government supports the intent of this recommendation to be considered as part of ongoing work on the state's freight strategy that will determine triggers and further planning requirements. Further budget consideration is required in future years to address the full scope of this recommendation.   |



## PRIORITY 4 – DEVELOPING SMARTER TRANSPORT SOLUTIONS

A responsive, resilient and adaptive transport system will be required to meet rapidly changing needs. Infrastructure Victoria held a similar view in regard to encouraging the development of planning and management tools, innovative solutions and new policies – removing or minimising regulatory and physical barriers that might prevent technology adoption. Government is preparing for the opportunities and challenges presented by the rapid growth and the pace of social and technological change. This includes maximising the movement of people and goods by rolling out advanced traffic management systems, using technology and smart mobility solutions to improve safety and provide users with more accurate information to better plan their journeys.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Driver assistance applications<br>0–15 years<br>10.7.2, 13.2.3      | Supported              | Government supports the testing of driver assistance applications and is working with national bodies to amend regulations to enable testing.   |
| Driverless freight vehicles<br>0–15 years<br>13.2.2                 | Partly supported       | Government supports the intent of this recommendation. Government is working closely with national regulators to enable testing of increased freight vehicle automation. Deployment of this technology is dependent on the results of these tests, and the suitability of current infrastructure.   |
| Driverless vehicles<br>0–30 years<br>6.2.2, 10.7.3                  | Partly supported       | Government supports enabling the trial of highly automated vehicles with appropriate controls and is working with national bodies to develop regulations that support this testing. Once the results of these trials determine the technology is safe and suitable, government will assist in enabling its deployment.  |
| Innovative transport services<br>0–5 years<br>1.3.1, 10.7.1, 12.2.2 | Supported in principle | Government supports the development of new and innovative transport options, subject to further investigation including safety, equity and value for the community. Government has already started to reform the commercial passenger vehicle sector and will continue to explore other areas where new types of services can improve connectivity.   |
| On-demand transport services<br>0–10 years<br>2.1.3, 6.2.1, 12.2.6  | Supported in principle | Government will explore its role in better coordination of transport services across multiple providers (examples: public transport, community provided services, not for profit and private providers) to improve connections in local communities. Five Local Transport Forums are currently being trialled in regional and metropolitan areas. Existing work and new funding partly address this recommendation. As this recommendation is over 0–10 years, future budget consideration is required for full implementation. |
| Public transport real-time information<br>0–15 years<br>10.4.1      | Supported in principle | Government supports the release of real-time information where it is available and meets appropriate standards. All metropolitan information is already released and regional rail real-time information is now available. Regional bus information is available in some areas and more will be progressively released. Under current technologies, it is not intended to release passenger loading data.   |

| Recommendation   | Position               | Rationale  |
|--|------------------------|--|
| Public transport resilience<br>0–30 years<br>19.1.3        | Supported in principle | Government supports the intent of this recommendation. The implementation of the Critical Infrastructure Resilience Strategy focuses on public transport as one of the key providers of essential services to Victorians. Government and industry continue to work collaboratively on risk management to reduce the impact of disruptions. Transport For Victoria is developing an Asset Management Plan that will help assets meet service requirements and be resilient to future change. The Asset Management Plan will address priorities, and future budgets will give consideration to ongoing implementation over 30-years. |
| Road space allocation<br>0–15 years<br>10.6.3, 11.3.5      | Supported in principle | Government supports the intent of this recommendation and the progressive roll-out of on-road prioritisation for public transport at key sites. Road space allocation improvements are being progressively introduced at key locations. Full implementation over 0–15 years will be considered as part of integrated transport planning and future budgets.  |
| Traffic management systems<br>0–10 years<br>10.6.2, 13.2.1 | Supported              | Government supports the roll-out of advanced traffic management systems on selected key routes. VicRoads Managed Motorways program is successfully operating on key routes, including the M1. Deployment of these systems is continuing across the road network.   |
| Transport contingency planning<br>0–5 years<br>19.2.2      | Supported              | Government supports this initiative. Transport For Victoria is developing a Network Impact Management Plan to better manage network disruptions during infrastructure builds such as Metro Tunnel. The Network Impact Management Plan will start to address this recommendation, and will be expanded to cover other major disruptions.  |
| Transport control centres<br>15–30 years<br>19.2.4         | Supported in principle | Government supports the intent of this recommendation, but notes that it requires consideration of the benefits and risks of consolidated or aggregated control centres. Transport For Victoria is improving system wide operational coordination and integration of transport management. Any potential capital works associated with this recommendation will be considered as part of future budgets.   |
| Transport modelling<br>0–5 years<br>10.2.1, 11.2.1, 13.1.1 | Supported              | Government supports this recommendation. Transport For Victoria is preparing a 10-year model development plan. This will consider the capabilities necessary to understand network performance and the relative costs and benefits. Ongoing review and development of strategic transport models will ensure that they provide accurate assistance in future planning.   |



# Culture, sport and community

## PRIORITY 1 – MAINTAINING VICTORIA’S COMPETITIVE EDGE

Victoria is the national capital for culture and sport. Maintaining our competitive edge will require long-term planning to expand and renew the iconic venues that enhance our sporting and cultural reputation, as well as provide economic returns and grow Victoria's visitor economy.

Infrastructure Victoria holds a similar view, identifying a decision-making framework across major sporting and cultural facilities is an important guide to future investments and ensuring transparency. A number of strategies have been put in place, and more are under development, to provide a clear decision-making framework for future investments. These include the Creative State Strategy for cultural assets and the State Facilities Strategy for sporting assets, and the yet to be released Major Stadia Strategy.

| Recommendation  | Position         | Rationale  |
|---|------------------|--|
| Major cultural/sporting infrastructure<br><br>0–5 years<br><br>4.3.1, 5.1.1 | Partly Supported | Government partly supports this recommendation and notes that considerable work is already underway through existing strategy development; including the Creative State Strategy, State Facilities Strategy and Major Stadia Strategy. Further work will be undertaken to determine the practicality of a framework that considers both sport and creative industries infrastructure together. |

## PRIORITY 2 – PLANNING FOR A GROWING POPULATION

A growing population needs spaces and facilities for cultural, sporting and active recreation activities, as well as spaces to support community cohesion. Infrastructure Victoria flagged the need for an evidence based and transparent process for decision-making on future investments. We are committed to supporting local councils to plan for and provide facilities for their local communities. A number of community-based programs and initiatives will improve the utilisation of government owned land and facilities, creating new opportunities for community sport and cultural activities. A further package of policy and planning activities will be brought together to support a Whole of Government Community Facilities Strategy to maximise the use of existing infrastructure and facilities for the benefit of Victorian communities.

| Recommendation   | Position               | Rationale  |
|--|------------------------|--|
| Community cultural facilities<br>0–5 years<br>5.1.2                        | Supported              | Government supports this recommendation as it aligns with Plan Melbourne and the Government's Creative Industries Strategy. Initial work is underway for a review of an assessment methodology that will inform future investments and grant allocations.  |
| Community sport/recreation facilities<br>0–5 years<br>4.3.2                | Supported              | Government supports this recommendation as it aligns with Active Victoria and will be fully addressed through the development of the Community Sport and Recreation Facility Strategy.   |
| Public libraries<br>0–30 years<br>1.4.5, 5.4.3, 9.4.3                      | Supported in principle | Government supports the intent of this recommendation, and will continue to support local councils to build and maintain public libraries within existing funding commitments. Future budget consideration is required for funding increases over the 30-year period.                                |
| Public space utilisation<br>0–5 years<br>1.4.1, 5.2.1                      | Supported              | Government supports this recommendation to ensure state owned public spaces are well-managed. Land Use Victoria will undertake an audit of Victorian Government land that will identify opportunities for potential community uses, including sport and active recreation, over the next five years. |
| Relocatable community infrastructure<br>0–10 years<br>1.4.3, 5.4.1, 19.2.3 | Supported in principle | Government partly supports this recommendation and has several funding programs, which can support increased funding. As this recommendation is over 0–10 years, future budget consideration is required for ongoing funding.  |





### PRIORITY 3 – GROWING PARTICIPATION

Victoria’s increasingly diverse population means new choices in cultural and sporting pursuits, while changing lifestyles and preferences are changing how and when we access those pursuits. There is now opportunity to develop larger, multi-purpose assets, where appropriate, that deliver a range of services and facilities in one precinct. We will work with local councils and community groups across the state to ensure all Victorians can access modern facilities and spaces that ensure everyone can participate. This approach aligns with Infrastructure Victoria which seeks to better support the sharing of facilities and encourage active lifestyle participation.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Active lifestyle facilities<br>0–10 years<br>4.2.2                        | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 0–10 years, short-term initial progress will need to supplement by further funding, to address the full scope of this recommendation.                              |
| Community space shared use agreements<br>0–5 years<br>1.4.2, 2.3.1, 5.2.2 | Supported in principle | Government supports the intent of this recommendation but will need to give further consideration to its implementation through existing strategies and funding programs. Future funding may be required depending on the future implementation actions. |

### PRIORITY 4 – MAINTAINING OUR CURRENT FACILITIES

Victoria’s proud history of cultural and sporting participation has resulted in a significant asset base. We are committed to maintaining our internationally recognised arts and cultural facilities, high performance sport facilities and community sport and creation infrastructure. The scale and breadth of this infrastructure means spending on maintenance can be high and decisions about the priority and sequencing of works is required.

Infrastructure Victoria proposed an incentive fund to refurbish or rationalise community assets. This funding is currently being met through existing funding programs and government recognises that the rationalisation of assets may not be appropriate in all communities. Infrastructure Victoria has also noted the importance of not considering funding allocations between larger, recognised state facilities and smaller community spaces as trade-offs. They are all part of an important eco-system that provides the pathways from amateur to professional, encourage community participation and showcase the skills of our sporting and creative professionals.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Community space refurbishment/ rationalisation<br>0–30 years<br>1.4.4, 2.3.2, 5.4.2 | Supported in principle | Government supports the intent of this recommendation, with the Growing Suburbs Fund providing funding to interface councils for refurbishment and expansion of community facilities. The Community Sport and Recreation Facilities Strategy will also help to guide investment in sport and recreation facilities. As this recommendation is for 0–30 years, future budget consideration will be needed to further investment. |



Victoria's increasingly diverse population means new choices in cultural and sporting pursuits, while changing lifestyles and preferences are changing how we access those pursuits.



# Digital connectivity

## PRIORITY 1 – IMPROVING DIGITAL ACCESS ACROSS VICTORIA

Digitally connected communities, particularly those in regional and rural areas, means greater social connections, more productive business activity and more jobs for Victorians. Infrastructure Victoria held a similar view, recommending that government take a coordinated approach to leveraging its existing infrastructure and partnering with the private sector to improve digital access, particularly in Victoria’s major economic centres and rural areas. This is also a Regional Partnership priority and aligns with existing policy directions such as those within Plan Melbourne. With initiatives including the \$45 million Connecting Regional Communities Program, the Victorian Government is taking steps to achieve this goal.

| Recommendation  | Position  | Rationale  |
|---|-----------|--|
| Communications infrastructure<br>0–10 years<br>12.1.3, 19.1.2 | Supported | Government supports the recommendation and agrees that providing fast and reliable internet and mobile phone connectivity across Victoria is a priority, particularly in regional and rural areas. |



## PRIORITY 2 – SUPPORTING USE OF DIGITAL TECHNOLOGIES

The Victorian Government recognises that new technologies are changing the way Victorians communicate and conduct business. Government is supporting a range of initiatives that improve communications infrastructure and access to digital technology. Infrastructure Victoria identified information and communications technology as the common link underpinning its 30-year Infrastructure Strategy. Their recommendations regarding driverless vehicles and driver assistance technologies are relevant here and can be found under the Transport sector response on pages 146–147.

## PRIORITY 3 – TRANSFORMING STATE ASSETS

Digital technology is transforming how we manage and use infrastructure. The Victorian Government will continue to look for opportunities to use technology to make the most of existing assets, delivering greater efficiency across the Victorian economy. Several of Infrastructure Victoria's recommendations relate to how technology could enable better use of existing assets and assist in managing growing demand through the provision of better information and data. They also cautioned that digital infrastructure itself needs to be managed, particularly risks to cybersecurity and privacy. The Victorian Government is committing to improving its technology capability and management through the ICT Strategy 2016–2020.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Critical infrastructure control systems<br>0–5 years<br>19.11 | Supported in principle | Government supports the intent of this recommendation and has developed a Cyber Security Strategy. The rolling program of work commenced in July 2017, with the full scope subject to future budget processes. |





# Education and training

## PRIORITY 1 – CATERING FOR A GROWING POPULATION

The Victorian Government is committed to maintaining education excellence and equity across our communities, through investing in building and upgrading our early childhood, schools and training and TAFE facilities while planning for future need. Infrastructure Victoria held a similar view, recommending greater transparency in planning and investment priorities, as well as a review of school network planning mechanisms, both within 0–5 years. Existing policies within the Education State initiative provide the initial steps towards implementing these recommendations, however, the longer term view means these investments will be considered as part of ongoing government investment decisions.

| Recommendation                                   | Position  | Rationale  |
|--|-----------|--|
| School investment pipeline<br>0–5 years<br>9.3.1 | Supported | Government supports publishing demand and condition information annually to provide transparency about how investment priorities are made for new and existing schools. This will be supported by a new process for the ongoing evaluation of the condition of school facilities, which will have implications for school infrastructure programs in the future. |
| School network planning<br>0–5 years<br>9.1.1    | Supported | Government supports effective management of school demand to provide Victoria's students with the facilities they need, and will continue to review enrolment placement policy to address any underlying issues regarding school utilisation.  |



## PRIORITY 2 – CREATING INCLUSIVE SHARED SPACES

We are committed to ensuring our education facilities are transformed into integrated community centres. Infrastructure Victoria made recommendations to transform state schools into community facilities over 5–30 years and conduct an audit of TAFE assets to understand opportunities for shared community use within 0–5 years. Existing policies such as Plan Melbourne and the Education State already promote community use of facilities in new and existing schools. The implementation of the existing TAFE and Dual Sector Universities Asset Strategy also fully addresses the ‘Community use of TAFE assets’ recommendation.

| Recommendation  | Position  | Rationale  |
|---|-----------|--|
| Community use of TAFE assets<br>0–5 years<br>9.4.2                          | Supported | Government supports conducting an audit of TAFE assets. Utilising these assets as community facilities will assist in maintaining the longer-term viability and increase the integration of TAFE facilities into their communities. Closer links between TAFE facilities and the community will also help improve the quality of services and education for communities. |
| Schools as community facilities<br>5–30 years<br>1.4.7, 2.3.3, 5.3.1, 9.3.3 | Supported | Government supports the transformation of schools into community facilities and is already implementing a number of programs, such as the Shared Facilities Fund and Joint Use Agreements.   |



### PRIORITY 3 – MAXIMISING USE OF TECHNOLOGY

This is a key priority for the education and training sector, particularly as facilities and curricula keep pace with change. Infrastructure Victoria made one recommendation to expand and accelerate the provision of ICT infrastructure in schools over 0–10 years particularly for regional and rural schools and those in disadvantaged areas. The Victorian Government is committed to ensure that digital disadvantage across the state is addressed and all young Victorians have equal access to digital education through Education State initiatives.

| Recommendation  | Position  | Rationale   |
|---|-----------|---|
| Education delivery through technology<br>0–10 years<br>2.2.2, 9.2.1, 12.1.4 | Supported | Government supports access to digital education in schools, no matter the location. We will ensure improved connectivity across the state, access to newly established Tech Schools, and promote technology use through STEM centres. |

## PRIORITY 4 – DEVELOPING SKILLS FOR TOMORROW

As the global economy changes, Victorians must be equipped with the knowledge and capabilities to do jobs of the future, both nationally and internationally. Infrastructure Victoria made one recommendation to investigate and resolve barriers for the inclusion of tertiary courses offered on school sites within 0–5 years. The Victorian Government has committed to establishing Tech Schools and the development of Trade Training Centres under the Education State initiatives. We will also continue to build on strong relationships with Asian countries, such as China, to ensure Victoria remains the leading provider of high quality education in Australia.

| Recommendation  | Position  | Rationale   |
|---|-----------|---|
| Tertiary education/VET in schools<br>0–5 years<br>9.4.1 | Supported | Government supports the increased opportunity for Victorians to access tertiary education and vocational education and training courses, particularly in rural and regional areas. We already have work underway in developing Trade Training Centres and the implementation of Tech Schools onto TAFE sites. |

## PRIORITY 5 – IMPROVING EDUCATION INFRASTRUCTURE

Improving and maintaining our existing education assets, early childhood, schools and training and TAFE, is critical to supporting population growth and increased demand for education facilities. Infrastructure Victoria made one recommendation to pilot a new regional maintenance model for schools within 0–5 years. The Victorian Government is committed to improving Victoria's school facilities and looking at innovative ways to ensure schools are provided with the right funding and delivery of services. An existing school maintenance pilot is currently focusing on the best outcomes for schools and value for money in maintenance investment.

| Recommendation                           | Position  | Rationale   |
|--|-----------|---|
| School maintenance<br>0–5 years<br>9.3.2 | Supported | Government supports piloting a new regional maintenance model for schools. The new maintenance model pilot program underway will ensure this recommendation is implemented in the first five years. |





# Energy

## PRIORITY 1 – ENSURING EFFICIENCY AND AFFORDABILITY

Ensuring a reliable, affordable and sustainable energy supply provides certainty to businesses, industry and the community. Infrastructure Victoria’s three recommendations provide a similar approach to existing policies such as the Victorian Government’s commitment to net zero emissions by 2050 and Plan Melbourne.

| Recommendation   | Position               | Rationale  |
|--|------------------------|--|
| Energy efficiency of existing public buildings<br>0–10 years<br>18.1.2 | Supported in principle | Government supports the intent of this recommendation through improving the energy efficiency of public buildings and has committed to improvements through the Greener Government Buildings program. As this recommendation is over 0–10 years, full implementation will be considered as part of future budgets.   |
| Energy efficiency of new buildings<br>0–10 years<br>18.1.3             | Supported in principle | Government supports initiatives to address energy efficiency for new buildings consistent with existing strategies, such as Plan Melbourne, the Energy Efficiency and Productivity Statement and Victoria's Climate Change Framework. Full implementation of this recommendation is dependent upon national regulation delivered through the provisions of the National Construction Code. |

## PRIORITY 2 – PROTECTING OUR ENERGY SECURITY

New technologies such as micro-grids and battery storage will be critical to ensuring the reliability of the electricity grid and unlocking economic growth in areas experiencing network constraints. Infrastructure Victoria made one recommendation to provide information specific to the Victorian market on areas of the electricity grid suited to absorb additional capacity within 0–5 years. The government has committed up to \$25 million to have up to 100 megawatt hours of storage installed by 2018. Ongoing work with the Australian Energy Market Operator will also help to provide the necessary certainty for investors.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Electricity network capability<br>0–5 years<br>18.2.2 | Supported in principle | Government supports the intent of this recommendation. Further work on the energy market will be undertaken by the Energy Taskforce, as well as with the Australian Energy Market Operator over the next five years. |

## PRIORITY 3 – TARGETING NET ZERO EMISSIONS

The Victorian Government supports investment in innovative energy infrastructure to create jobs and lower emissions. This starts with the ways citizens generate and consume energy. Infrastructure Victoria made one recommendation on small-scale solar to ensure updated guidance on installation of solar PV on buildings within 0–5 years. This is broadly consistent with our investment in decentralised distributed power generation, such as investment in large scale solar farms to power Melbourne's trams, and our commitment to zero net emissions by 2050.

| Recommendation                           | Position         | Rationale  |
|--|------------------|--|
| Small-scale solar<br>0–5 years<br>18.2.3 | Partly supported | Government partly supports this recommendation and is committed to supporting solar installations at both commercial and community scales. |



# Environment

## PRIORITY 1 – PROTECTING VICTORIA’S BIODIVERSITY

We are committed to protecting Victoria’s biodiversity. We have developed a set of ambitious targets to achieve improvement in the outlook for all species across the state. Infrastructure Victoria holds a similar view, recommending expansion of habitat corridors across the state over the next 5–30 years and growth in green infrastructure, particularly in urban areas, over the next 30 years. Existing policies, including Plan Melbourne and Protecting Victoria’s Environment — Biodiversity 2037, provide the initial steps towards implementing these recommendations. However, the long-term view means these investments will need to be reviewed as part of ongoing strategic government investment decisions.

| Recommendation   | Position               | Rationale   |
|--|------------------------|---|
| Green infrastructure<br>0–30 years<br>1.4.6, 4.2.3, 16.3.1 | Partly supported       | Government agrees with the intent of this recommendation and will continue to work with local governments to expand urban forests and other green infrastructure, but will not undertake centralised planning of green infrastructure across Victoria.            |
| Habitat corridors<br>5–30 years<br>16.3.2                  | Supported in principle | Government supports the intent of this recommendation, noting protection of habitat corridors should occur where they are of biodiversity importance. As this recommendation is for 5–30 years, future budget consideration will be needed to further investment. |

## PRIORITY 2 – MANAGING OUR PARKS

Ensuring our parks are well-managed and maintained is key to ensuring they can be enjoyed by the community and visitors, while also protecting valued flora and fauna. Infrastructure Victoria has made recommendations to improve the management of parks, which are supported and will be implemented through Valuing Victoria's Parks and Strengthening Parks Victoria.

| Recommendation  | Position         | Rationale   |
|---|------------------|---|
| Parks governance<br>0–5 years<br>16.2.1                   | Supported        | Government supports both of these initiatives and they will be addressed as part of Valuing Victoria's Parks.   |
| Parks pricing/funding/ expenditure<br>0–5 years<br>16.1.1 |                  |   |
| Parks partnerships<br>0–5 years<br>16.2.2                 | Partly supported | Government supports the intent of this recommendation, however further stakeholder consultation would need to occur especially with traditional owners involved in land management. Completion of the response to recommendation 16.2.1 would also be required prior to implementation. |

## PRIORITY 3 – TAKING ACTION ON CLIMATE CHANGE

This has been identified as a key priority for the environmental sector, particularly as we progress with the passing of the Climate Change Act. Infrastructure Victoria made one directly relevant recommendation for Coastal Protection Infrastructure over the next 5–30 years. They also identified a range of other initiatives related to climate change, for example energy efficiency of new and existing buildings, green infrastructure and coastal protection infrastructure. The response to these recommendations can be found under the Energy (page 158), Environment (page 160) and Water (page 174) sector priorities detailed in this chapter.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Coastal protection infrastructure<br>5–30 years<br>19.1.4 | Supported in principle | Government supports increases in coastal protection infrastructure, as appropriate. As this recommendation is over 5–30 years, implementation will be considered as part of future budgets. |



## PRIORITY 4 – IMPROVING RESOURCE RECOVERY AND WASTE MANAGEMENT

As the population grows, resource recovery and waste management becomes increasingly important to maintaining a sustainable, liveable environment. Infrastructure Victoria identified that managing pressures on landfill and waste recovery facilities was one of Victoria's infrastructure needs. We will continue to work with industry and key stakeholders to improve how Victoria manages its waste and boost waste recovery rates. The Statewide Waste and Resource Recovery Infrastructure Plan and the development of Regional Waste and Resource Recovery Infrastructure Plans will provide the direction for identification and protection of future landfill sites and resource recovery facilities.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Landfill protection<br>0–5 years<br>15.2.1                                      | Supported              | Government supports this recommendation, which will be addressed through implementation of the response to the review of the Environment Protection Authority.   |
| Organic waste<br>0–10 years<br>15.1.2   | Supported in principle | Government supports the intent of this recommendation and is committed to the actions in the Victorian Organics Resource Recovery Strategy, with implementation of medium and long-term implementation to be considered as part of future budgets. |
| Recycled materials in construction<br>0–5 years<br>15.1.1                       | Supported              | Government supports the recommendation and will commence work on this over the next two years.   |
| Waste management sites<br>0–5 years<br>15.2.2                                   | Supported              | Government supports this recommendation and priority actions have been identified as part of Victoria's Regional Waste and Resource Recovery Implementation Plans.   |
| Waste pricing<br>0–5 years (anticipated operation period 15–30 years)<br>15.1.3 | Supported in principle | Government supports measures to reduce waste generation. While there are no current plans to change waste pricing, further research on waste management systems will occur over the longer term.   |



As the population grows, resource recovery and waste management will become increasingly important to maintaining a sustainable, liveable environment.



# Health and human services

## PRIORITY 1 – BUILDING A PROACTIVE SYSTEM THAT ANTICIPATES DEMAND

We will continue to invest in our workers and build new infrastructure to meet the health and human service needs of a growing population. Infrastructure Victoria holds a similar view, recognising that Victoria’s expanding and ageing population, is increasing the demand for health and human services. Improving service delivery through investment in key forms of health and human services infrastructure will allow Victoria to keep pace with both the current and future demand.

Policies including Homes for Victorians and the Statewide design, service and infrastructure Plan for Victoria’s health system (to be released in 2017), set out the strategic priorities and initial steps towards implementing these recommendations. However, the longer term view means these investments will need to be reviewed as part of ongoing government planning and investment decisions.

| Recommendation   | Position               | Rationale   |
|--|------------------------|---|
| Acute/sub-acute health facilities<br>5–15 years<br>3.2.2 | Supported in principle | Government supports the intent of this recommendation with a number of funded projects already announced. As this recommendation is over 5–15 years, its full scope will need to be considered with future budgets.   |
| Affordable housing plan<br>0–5 years<br>7.4.1            | Partly supported       | Government supports the need to increase investment in public housing asset management over the next 0–5 years. This will occur through the existing asset management program, the recently announced estate redevelopment program and the transfer of management responsibilities to the community housing sector. |

| Recommendation   | Position               | Rationale  |
|--|------------------------|--|
| Affordable housing provision<br>0–30 years<br>7.4.3    | Partly supported       | Government agrees with the intent of the recommendation and Homes for Victorians significantly boosts investment in social housing. Further consideration is required into the role of the private sector in the provision of affordable private rental, which can be considered through future monitoring and review to align with the 0–30 year time frame of this recommendation. |
| Aged care facility approvals<br>0–5 years<br>3.4.1     | Supported              | Government supports this recommendation and will address in the five-year Plan Melbourne Implementation over the next two years.   |
| Major hospitals<br>10–15 years<br>3.2.4                | Supported in principle | Government supports the intent of this recommendation. A number of funded projects align with the priority hospitals identified by Infrastructure Victoria. As this recommendation is over 10–15, its full scope will need to be considered with future budgets.   |
| Public housing asset management<br>0–30 years<br>7.2.1 | Partly supported       | Government agrees with the intent of this recommendation, however, does not support divesting large portions of existing public housing dwellings. Homes for Victorians public housing estate renewal program will contribute toward the renewal and increase in the supply of social housing dwellings.   |

## PRIORITY 2 – DRIVING SYSTEM-WIDE REFORM FOR SAFER, BETTER SERVICES

In order to respond to future challenges for our health and human services systems, Victoria needs to adopt new approaches to its design of services, assurance of quality and safety of care delivered. This will include investing in workforce capability and new technologies. Infrastructure Victoria’s recommendation regarding joint service planning for Justice, Health and human services is relevant here. Details of projects and reforms that respond to this recommendation can be found in the Health and human services and Justice sectors at pages 96–119.



## PRIORITY 3 – INTEGRATING CARE ACROSS THE HEALTH AND SOCIAL SERVICE SYSTEM

We will strengthen prevention and early intervention by investing in facilities that integrate services and that integrate and include the right services and support. This will help deliver effective care and deliver lasting improvements in health, safety and wellbeing. Infrastructure Victoria holds a similar view with a number of recommendations seeking greater integration of services and stakeholder engagement with health care providers. The government's statewide design, service and infrastructure Plan for Victoria's health system will provide the direction and priorities well into the 20-year period.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Forensic mental health facilities<br>5–10 years<br>3.3.1, 8.3.3 | Supported in principle | Government agrees with the intent of this recommendation. The 2017/18 State Budget provides \$43.9 million in capital funding to expand the state's adult forensic mental health capacity. This investment builds on the existing work to provide 18 new beds at Thomas Embling Hospital, as well as expanding mental health treatment services at Dame Phyllis Frost and Ravenhall prisons. As this recommendation is over 5–10 years, investment will need to be considered as part of future budgets.                                  |
| Health care partnerships<br>0–30 years<br>3.2.1                 | Supported in principle | Government supports the intent of this recommendation and it will be explored as part of the development of the Statewide design, service and infrastructure plan to be released in 2017.   |
| Integrated community health hubs<br>5–30 years<br>3.2.3, 12.1.7 | Supported in principle | Government supports the intent of this recommendation, and has implemented examples of integrated community health hubs through the Better Care Innovation Fund and the Regional Health Infrastructure Fund. As this recommendation is over 5–30 years, its full scope will need to be considered as part of future budgets.  |
| Mental health/AOD facilities<br>5–30 years<br>3.3.2             | Supported in principle | Government supports the intent of this recommendation. Funding commitments in 2017/18 include \$10 million for mental health and alcohol and other drug facilities renewal, \$34.8 million for new rehabilitation beds and \$9.7 million to acquire land in regional Victoria to build new residential drug rehabilitation facilities. Further detailed planning is underway through the Statewide design, service and infrastructure planning framework. Additional facilities over 5–30 years will require future budget consideration. |

## PRIORITY 4 – IMPROVING EQUITY AND ACCESS

Ensuring access to affordable housing and health services for the most vulnerable is a growing concern. The Victorian Government is taking a coordinated approach to introducing a range of planning and policy reforms that provide all Victorians with better access to housing and the services they need. Infrastructure Victoria identified a number of initiatives that address the important issue of housing affordability.

Government's approach to implementing universal design principles will improve equity and access for all Victorians, including regional and rural communities, through making infrastructure, services and places more accessible. Homes for Victorians provides a package of initiatives that address the full range of issues relating to housing affordability from private rental, home ownership, social housing and crisis accommodation.

On average Victorians living in rural and regional areas have poorer health outcomes. Stronger partnerships between providers and strategic investments in bed-based and community infrastructure is critical to improving access to health care wherever people live. Strengthening regional and rural health services is a key priority of the Statewide design, service and infrastructure plan for Victoria's clinical mental health system.

| Recommendation  | Position         | Rationale  |
|---|------------------|--|
| Affordable housing fast track approvals<br>0–5 years<br>7.3.1     | Supported        | Government supports this recommendation and will address in the five-year Plan Melbourne Implementation in the next two years.   |
| Affordable housing planning mechanism<br>0–5 years<br>7.3.2       | Partly supported | Government agrees with the intent of this recommendation; however notes there are various ways for our planning system to support the delivery of affordable housing. Through Homes for Victorians there are a number of initiatives that will explore options to address this recommendation scheduled for implementation within two years. |
| Crisis accommodation and supportive housing<br>0–5 years<br>7.4.2 | Supported        | Government supports this recommendation and will meet expected demand over the next 4/5 years, noting that continual monitoring of future demand should occur.   |
| Housing rental assistance<br>0–30 years<br>7.1.1                  | Supported        | Government is committed to this recommendation and will deliver through a number of key initiatives set out in Homes for Victorians. As this recommendation is 0–30 years, continual monitoring is required to determine whether further investments are needed to address any supply and demand constraints.                                |
| Universal design<br>0–5 years<br>6.1.1                            | Supported        | Government supports the recommendation and will implement over the next five years.  |

### PRIORITY 5 – INVESTING IN THE FUTURE

New technologies provide the opportunity to transform the way services are designed and delivered in the future. Infrastructure Victoria’s recommendations aligned with this priority are designed to seek better ways to invest in new technologies that would improve client outcomes and provide better access for those living in rural and remote areas. We are investing in new information communication technologies to enhance how services are provided, and in medical research to deliver new product innovations and improvements in care.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Health care delivery through technology<br>5–10 years<br>2.2.3, 3.1.2, 12.1.6 | Supported in principle | Government supports the intent of this recommendation. Government is committed to increasing the use of technology to expand access to health care services remotely, including through the Better Care Innovation Fund. As this recommendation is over 5–10 years implementation will be considered with future budgets. |
| Health care ICT systems<br>0–10 years<br>3.1.1, 12.1.5                        | Supported in principle | Government supports improving the capability of digital health systems with some recent investments made. As this recommendation is made over 0–10 years, implementation of its full scope will need future budget consideration and the readiness of health services.  |



We are investing in new information communication technologies to enhance how services are provided, and in medical research to deliver new innovations and improvements in care.





# Justice and emergency services

## PRIORITY 1 – KEEPING VICTORIANS SAFE

All Victorians should feel safe in their communities. We are committed to community safety through a multi-faceted approach that involves the introduction of a series of measures to strengthen law enforcement, police presence, tighten bail conditions and give courts more power. Infrastructure Victoria made recommendations about changes to the model of police station infrastructure provision and police communications channels. Our recently released Community Safety Statement is accompanied with the single largest investment in police since the establishment of Victoria Police, meaning more officers, better equipment and technology and the powers they need to fight crime.

| Recommendation   | Position         | Rationale   |
|--|------------------|---|
| Police communications channels<br>0–5 years<br>2.21, 8.21, 12.11 | Supported        | Government supports this recommendation as it aligns with existing priorities. A police assistance line and online reporting channel is expected to be implemented in the next two years.   |
| Police complexes<br>5–30 years<br>8.13                           | Partly supported | Government is committed to delivering a comprehensive approach to tackling crime. Under the Community Safety Statement, significant investment has been committed to new and upgraded police stations across the state, with a focus on strengthening frontline and specialist police capacity. Police complexes as a specific response is inconsistent with government policy. |



PRIORITY 2 – BUILDING THE CORRECTIONS AND YOUTH JUSTICE FACILITIES WE NEED

We are committed to upgrading and building new corrections facilities that protect the community and provide opportunities for rehabilitation. Infrastructure Victoria made one recommendation relevant to this priority to undertake planning for a future male prison site in 0–5 years in order to respond to any potential changes in demand.

| Recommendation                      | Position  | Rationale   |
|-------------------------------------|-----------|---|
| Future prisons<br>0–5 years<br>8.31 | Supported | Government supports this recommendation and has funded the identification and planning for future prisons. This recommendation will be met within the short term. |

## PRIORITY 3 – NEW AND IMPROVED COURT SERVICES

Our court system is extensive and while some areas are well integrated, there are other areas which operate in isolation. A new case management system will better integrate information exchange between agencies and the Magistrate's and Children's Courts. A key focus for the future will be ensuring that the current infrastructure base and essential services are well-managed through effective asset management.

Infrastructure Victoria's recommendations are similar in their intent that investment be directed at addressing better planning and integration of complementary services in the same assets, addressing the maintenance backlog in courts and expanding assets in high growth areas. We will continue to invest targeting priority investment areas including the emergency management sector, youth justice and court facilities.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Courts maintenance<br>0–15 years<br>8.3.2                               | Supported in principle | Government supports the intent of this recommendation as it aligns with the Court Services Victoria Strategic Asset Plan. While some progress will be made, as this recommendation is over 0–15 years, further investment will be considered with future budgets.  |
| Courts in high growth areas<br>0–15 years<br>8.1.2                      | Supported in principle | Government supports the intent of this recommendation, with current investments directed to priority areas. Further budget consideration will be required to implement the full scope of this recommendation over the next 15 years.   |
| Courts in Melbourne's CBD<br>15–30 years<br>8.3.4                       | Supported in principle | Government supports the intent of this recommendation and will consider options to make best use of existing facilities in the next five years. As this recommendation is over 15–30 years, further investment will be considered with future budgets and the investment priorities identified through the Court Services Victoria Strategic Asset Plan. |
| Justice/health/human services integrated planning<br>0–5 years<br>8.1.1 | Partly supported       | Government agrees with the intent of this recommendation. Considerable work is already underway with the integration of family violence services with justice and potential of forensic mental health linkages where appropriate, however it may be noted that some elements of service delivery are not suitable for integration.                       |

## PRIORITY 4 – DEPLOYING ICT INNOVATIONS

Investment in emergency services means personnel have the resources they need to get on with the job of protecting communities. We are committed to strengthening police communication channels and other services to enable personnel working in regional areas to respond more securely and effectively to incidents. Infrastructure Victoria supports the need for technological improvements, including dispute resolution technology and a justice case management ICT system. These are key considerations for this sector and the investment priorities.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Dispute resolution technology<br>0–5 years<br>8.2.2, 12.1.2 | Supported in principle | Government supports the intent of this recommendation and will determine investment requirements for its implementation once the Access to Justice Review is complete in 2017.   |
| Justice case management ICT system<br>0–10 years<br>8.2.3   | Supported in principle | Government supports the intent of this recommendation and will address the needs of the Magistrates Court and Children's Court in the short term through an \$89.2 million investment for a new case management system. As this recommendation is over 0–10 years further investment will be considered in future budgets. |

## PRIORITY 5 – ENHANCING PUBLIC SAFETY

Ensuring public safety requires responsive, adaptive emergency services and safety infrastructure. This encompasses a range of assets from fire stations, emergency services to surf lifesaving clubs. Infrastructure Victoria made one recommendation relevant to this priority regarding improving how we plan for service continuity during major disruptions, particularly the increasing risk of ICT failures.

| Recommendation  | Position               | Rationale  |
|---|------------------------|--|
| Critical infrastructure contingency planning<br>0–5 years<br>19.2.1 | Supported in principle | Government supports the intent of this recommendation with the establishment of the Victoria State Emergency Services headquarters and critical assets to be addressed in the next four years. Further consideration is required in future budgets to address this recommendation in full. |





# Water

## PRIORITY 1 – EXTENDING AND USING OUR WATER GRID BETTER

Extending and improving the management of our water grid will deliver a more efficient, sustainable and affordable water sector. Infrastructure Victoria made four recommendations to enable better management of Victoria’s water resources and plan for our long-term water needs. Recommendations have largely been supported with some scope changes to align with Water for Victoria.

| Recommendation   | Position               | Rationale   |
|--|------------------------|---|
| Irrigation water delivery<br>0–10 years<br>14.1.3  | Supported in principle | Government supports the intent of this recommendation, with any major upgrades to be considered on a project-by-project basis over the next 10-years, as part of future budgets.  |
| Major water supply augmentation<br>0–5 years (anticipated construction/operation period 15–30 years)<br>14.3.1 | Partly supported       | Government supports the intent of this recommendation, and will continue to monitor the need for major augmentation of water supplies through existing planning processes. Of the potential augmentation options, recycling wastewater for drinking is not supported and not government policy.                 |
| Water governance<br>0–5 years<br>14.1.1  | Partly supported       | Government partly supports this recommendation, with implementation of Water for Victoria to focus on priority areas. These include integrated water management to promote initiatives like water recycling and stormwater harvesting, emergency management and entitlement frameworks, and compliance regimes. |
| Water trading<br>0–10 years<br>14.1.2  | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 0–10 years, implementation will be considered as part of future budgets.  |



## PRIORITY 2 – BUILDING RESILIENCE TO CLIMATE CHANGE

The government is committed to help build resilience to the impacts of climate change, including future droughts and water scarcity. Infrastructure Victoria has made three recommendations to ensure we are making best use of all possible water supplies to insure against water scarcity. Recommendations, such as those dealing with stormwater and recycled water, have largely been supported with some minor scope changes to align with Water for Victoria.

| Recommendation   | Position               | Rationale   |
|--|------------------------|---|
| Recycled water (non-potable use)<br>0–10 years<br>14.2.1 | Partly supported       | Government supports the intent of this recommendation and the use of recycled water for non-potable purposes aligns with the objectives of Water for Victoria, however the mechanism of a targeted incentive fund is not supported. |
| Stormwater harvesting<br>5–30 years<br>14.2.2, 17.2.1    | Supported in principle | Government supports the intent of this recommendation. Implementation is subject to future budget processes or other investment sources, particularly as future capital works may not involve state funding.                        |
| Stormwater quality<br>0–5 years<br>17.1.1                | Partly supported       | Government supports this recommendation in part, but to implement over the next five years and to be consistent with Water for Victoria, its scope has been changed to focus on stormwater management rather than quality.          |

### PRIORITY 3 – IMPROVING THE HEALTH OF WATERWAYS AND CATCHMENTS

Infrastructure plays an important role improving the health of our waterways by better managing the impacts of climate change, extreme weather events and minimising damage from livestock. Infrastructure Victoria made two recommendations including expanding fencing of riparian areas in priority waterways over 10–30 years, utilising infrastructure to deliver optimal environmental watering in 15–30 years. Existing plans such as Water for Victoria set the foundations for future action to address these recommendations.

| Recommendation  | Position               | Rationale   |
|---|------------------------|---|
| Environmental water delivery<br>15–30 years<br>16.3.3, 17.2.2 | Supported in principle | Government supports the intent of this recommendation. As this recommendation is over 15–30 years, implementation will be considered as part of future budgets.   |
| Riparian fencing<br>10–30 years<br>17.1.2                     | Supported in principle | Government supports the intent of this recommendation as part of its consideration of various waterway management practices. As this recommendation is over 10–30 years, implementation will be considered as part of future budgets. |





The government is committed to help build resilience to the impacts of climate change, including future droughts and water scarcity.





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