

## Queensland State Infrastructure Plan

March 2016

### Overview

On 13 March 2016 the Queensland Premier and Minister for the Arts, the Hon Anastacia Palaszczuk MP, and Deputy Premier and Minister for Infrastructure, Local Government and Planning, the Hon Jackie Trad MP, released the State Infrastructure Plan.

The State Infrastructure Plan outlines the Queensland Government's approach to addressing the state's future infrastructure needs and opportunities.

The State Infrastructure Plan highlights opportunities for the private sector to partner with the Queensland Government to meet Queensland's future infrastructure requirements, especially through market-led proposals.

The Plan was released in two parts:

[Part A: Strategy](#) details a vision for the future, including a new approach to infrastructure planning and prioritisation that sets out the Government's plan to respond to key opportunities and challenges facing Queensland.

[Part B: Program](#) outlines a program of investment over the next four years, without specifying solutions, in order to encourage innovation and ideas from industry.

### Future Opportunities

The State Infrastructure Plan Part B outlines a number of future opportunities in each portfolio area. Where possible, the Queensland Government seeks to find solutions to these opportunities in collaboration with the private sector.

#### ***Cross Government Infrastructure opportunities***

Future opportunities - short term:

- Secure transport, port facilities, water infrastructure and community amenities to unlock thermal coal in the Galilee and Surat basins, bauxite deposits near Aurukun and underexplored gas reserves in the Cooper Basin
- Investigate impacts on the Great Barrier Reef and prioritise infrastructure to support water quality improvements
- Maximise advances in technology to enhance asset preservation
- In partnership with industry, build Queensland's public and private sector capability to move towards a mandatory adoption of BIM on building projects by 2020 and on major infrastructure by 2023
- Partner with the private sector to capitalise on the Northern Australia Infrastructure Fund to deliver economic infrastructure to northern Queensland

- Engage with asset owners early in the planning process to identify opportunities for innovation (e.g. opportunities for precinct-wide approaches to water recycling or access to transport corridors)

#### Future opportunities - medium/long-term

- Identify catalytic infrastructure to support new agricultural, biowaste and biorefinery hubs across regional Queensland
- Investigate opportunities to improve material, manufacturing and construction practices that reduce energy consumption and greenhouse gas emissions and improve sustainable construction (e.g. the Cement Sustainability Initiative)
- Embrace technological advances for improved delivery/use of public services particularly those that decrease demand for investment in hard infrastructure.

### ***Transport***

#### Future opportunities – short term

- Focus on innovative infrastructure solutions to relieve capacity constraints in the core inner city rail network to meet the expected passenger demands in SEQ
- Utilise the latest and most accessible technology to improve the communication and dissemination of real-time travel data to empower customers to make the best decisions in using the transport system
- Access the latest and most efficient technology to assist in gathering and analysing travel and freight data, asset condition and to improve resilience, efficiency, safety and operation of Queensland's transport networks
- Investigate cost-effective transport solutions for small volume regional products to access ports
- Initiate a Regional Bridge Renewal Program to replace timber bridges and older concrete and steel structures, which are deteriorating due to age and increased use, and impede the use of freight-efficient vehicles.

#### Future opportunities – medium/long term:

- Enhance freight capacity and supply chain efficiency by assisting in the delivery of the Melbourne to Brisbane rail solution
- Improve passenger and freight movements between Brisbane and the Gold and Sunshine coasts by increasing capacity and efficiency on roads and public transport services as well as extending rail linkages
- Support Queensland's continued economic development through the long-term sustained development of key ports
- Investigate ways to better use port facilities in the Gulf of Carpentaria.

### ***Energy***

#### Future opportunities – short term:

- Explore opportunities to establish research and pre-commercial biorefinery to build on Queensland's competitive advantage in this sector
- Examine opportunities to improve the energy productivity of the sector in Queensland
- Develop and leverage intelligence and resilience of the electricity network in relation to severe weather events such as cyclones
- Promote widespread use of energy sourced from renewable energy generation

- Investigate opportunities to incorporate energy efficiency and demand management into major infrastructure projects.

Future opportunities – medium/long term:

- Examine opportunities for more cost-effective localised solutions for rural and regional communities
- Examine opportunities to replace Queensland’s 34 isolated power systems, including many diesel systems that service remote communities, with more efficient and sustainable supplies
- Investigate how to best utilise Queensland’s changing generation mix in a low cost and sustainable manner.

## **Water**

Future opportunities – short term:

- Work with local government on water supply solutions for communities with projected water supply shortfalls resulting from increased growth or drought
- Support and encourage innovative water efficient and waterless technology for domestic, industrial and agricultural use to delay or avoid the need to construct costly additional water infrastructure
- Develop a long-term water infrastructure supply and demand assessment which addresses water infrastructure projects and opportunities
- In partnership with local governments and water utilities, assess options to provide new water sources to the northern part of SEQ where demand is forecast to exceed supply beyond 2030.

Future opportunities – medium/long term:

- Maximise the use of alternative water sources and supplies, such as treated industrial water
- Leverage infrastructure innovation and water conservation by encouraging the take-up of technology such as:
  - Alternative water use technologies for stormwater and water recycling, including smart systems that prevent run-off and treat water for fit-for-purpose reuse opportunities
  - Advanced water technologies to recycle and reuse water locally, and reduce the energy used to transport water solutions for sewage treatment plants to generate energy, rather than just using it
  - Water supply to on-site energy generation solutions
  - Modular, mobile and low-cost water supply and sewage management infrastructure.

## **Health**

Future opportunities – short term:

- Work with primary health care networks, primary care providers and the non-government sector to promote health, wellbeing and disease prevention to reduce hospital admissions
- Reduce reliance on physical infrastructure through increased use of alternative service delivery models or locations that support provision of health care in non-hospital settings. This may include community-based solutions, increased use of day services and ‘virtual’ models of care including ‘hospital in the home’
- Improve health outcomes for people in rural and remote Queensland through telehealth services that improve access and quality of clinical services.

Future opportunities – medium/long term:

- Create integrated care models by utilising aged care facilities, working with private hospitals and mobile delivery services to meet changing demographic needs such as an ageing population

- Develop a broad range of approaches to address high levels of anticipated growth in SEQ
- Increase the use of mobile delivery models, personal health devices and remote monitoring technology to support efficient and effective health service delivery

### ***Education and training***

Future opportunities – short term:

- Employ non-infrastructure solutions to improve the management of over and under-utilised education and training facilities
- Increase third party, including community, use of existing buildings and facilities by examining and challenging traditional operating models, including the use of sports and recreation facilities at state schools
- Investigate the feasibility of sharing surplus or under-utilised education and training facilities with other government department.

Future opportunities – medium/long term:

- Focus on minor works or upgrade programs that make existing infrastructure fit-for-purpose to meet current and future teaching requirements, including incorporating new technologies
- Work with local government, developers and other government agencies to collaboratively plan to meet the needs of growing and changing communities by delivering agile shared infrastructure solutions.

### ***Digital***

Future opportunities – short term:

- Identify opportunities to address areas where mobile coverage or NBN technology is insufficient to meet community needs, particularly in public buildings like schools, health facilities and libraries
- Identify opportunities to increase teleworking in the public and private sectors as a means of reducing congestion on transport networks in Queensland's cities
- Develop more responsive and effective emergency services through improved technology, coverage, security and interoperability for public safety communications in Queensland
- Accelerate smart infrastructure deployment with sensor and wi-fi networks to improve efficiency, safety and liveability, with real-time information to enable better management and use of infrastructure
- Improve infrastructure planning and management by using big data, open data, data analytics and machine learning.

Future opportunities – medium/long term:

- Harvest the benefits of new and emerging technology digital disruptions that may reduce the demand for future infrastructure (e.g. autonomous vehicles, solar battery storage and telehealth)
- Identify opportunities to leverage existing and proposed connectivity into Queensland's school for broader community and government benefit
- Integrate digital networks and sensors into all new infrastructure projects as standard

### ***Justice and public safety***

Future opportunities – short term:

- Implement mobility solutions to provide real-time information in the field and on the frontline
- Improve coordinated responses and service delivery through electronic intelligence capabilities, online service provision, greater use of electronic communication and linking of multiple data

- Continue to optimise court utilisation through technology including e-lodgement and videoconferencing.

Future opportunities – medium/long term:

- Manage demand and improve efficiency by implementing integrated service delivery models to respond to increasing demand
- Support integrated service delivery, through a range of communication channels, including new technology and alternate contact models.

### ***Arts, culture and recreation***

Future opportunities – short term:

- Ensure infrastructure delivered for the Gold Coast 2018 Commonwealth Games creates positive and lasting benefits that can be leveraged following the event.

Future opportunities – medium/long term:

- Implement on-site and off-site storage strategies for new and existing arts and cultural facilities
- Upgrade or renovate facilities to meet modern service standards and growing community needs
- Identify and progressively implement a program of multi-use sports infrastructure.

### ***Social housing***

Future opportunities – short term:

- Meet the changing household demographics of high and very high needs clients by ensuring one and two bedroom units are acquired to replace larger dwellings
- Reduce maintenance costs and maximise the value of underlying land assets by replacing older large detached dwellings with one and two bedroom dwellings for households in high need
- Engage with non-government and private enterprise in the renewal of social housing

Future opportunities – medium/long term:

- Meet changing demand through a mix of housing products including partnerships with non-government organisations and the private sector.

### **State Infrastructure Fund**

The Premier and Deputy Premier also announced a \$500 million new State Infrastructure Fund to fund infrastructure projects. The Fund is expected to create 1,000 jobs. Seven road and rail upgrades have been identified as critical and will be funded through the State Infrastructure Fund.

### **Further Information**

The State Infrastructure Plan can be viewed online [here](#).

The media release by Deputy Premier and Minister for Infrastructure, Local Government and Planning the Hon Jackie Trad MP can be viewed online [here](#).

For further information on the State Infrastructure Plan please contact Hawker Britton consultants [Eamonn Fitzpatrick](#) on +61 401 719 488, or [Lydia Deutscher](#) on + 61 408 308 338.

Other Hawker Britton Occasional Papers on the policy activities of the Queensland Government can be viewed [here](#).