



▼ CROSS-GOVERNMENT

Carseldine Village



CROSS-GOVERNMENT

OVERVIEW

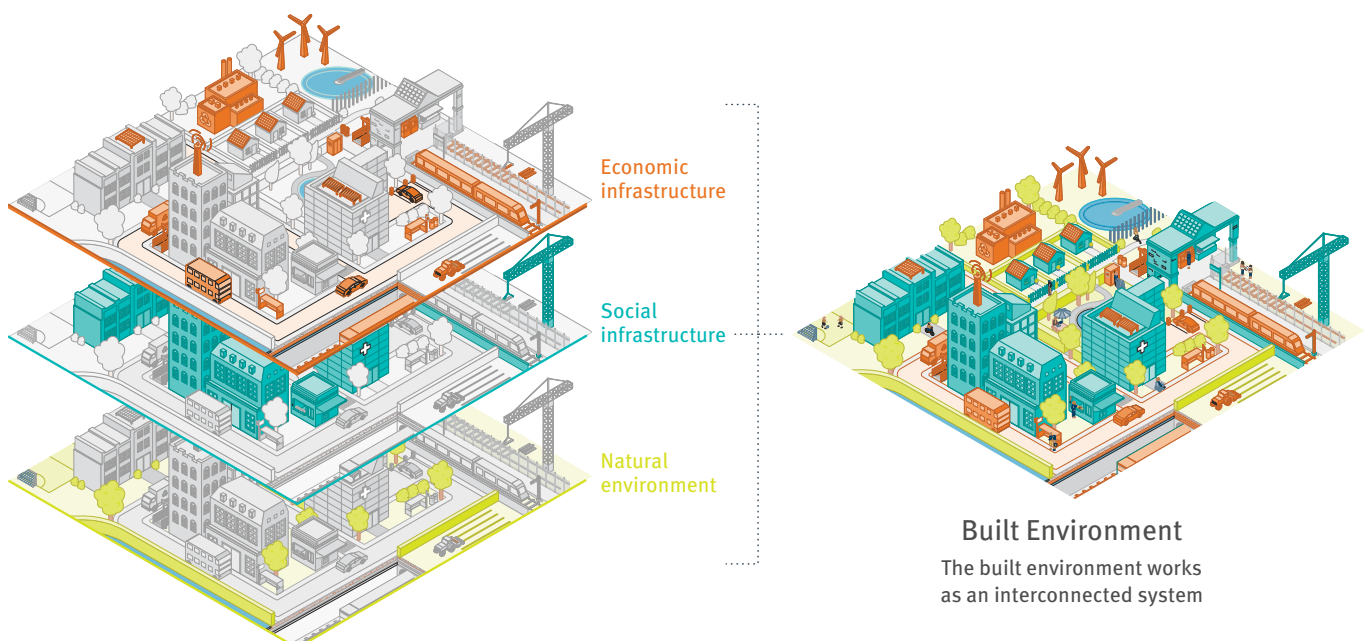
Infrastructure planning and delivery is costly and complex, meaning it typically has a long lead time and even longer life. To ensure this significant investment in time and resources is well spent, it is important that government focuses on continuous improvement, coordinated planning and delivery, and appropriate engagement with partners and stakeholders. We should be continually raising the bar to drive and optimise the performance and outcomes of each infrastructure investment and the industry more broadly.

This chapter sets out the state government's cross-sectoral priorities to improve the overall performance of its infrastructure program and the performance of its existing assets. It considers the following four key themes common to the lifecycle of infrastructure development as well as the links and interdependencies between the different infrastructure classes, and links to land-use planning and industry development.

- Working with industry and improving productivity
- Enhancing governance
- Infrastructure planning with a focus on place
- Resilience and sustainability

It also considers the current and emerging trends described by Infrastructure Australia in the *2021 Australian Infrastructure Plan* and interests in reforms shared by both government and industry. It outlines a range of priority actions that are shaped by the current landscape of economic recovery, place-based planning and climate change.

The cross-government priority actions in this chapter emphasise the interrelated nature of the other infrastructure classes in this strategy. These don't operate in isolation, they form part of an interconnected system that supports industries and communities across Queensland. The diagram below illustrates how this interlinked system of social and economic infrastructure interacts with the natural environment to form our built environment. This highlights the need for continued coordination with our infrastructure to address some of the pressing challenges we are facing in Queensland including addressing climate change, responding to population pressures and increasing our resilience.



*Interconnected infrastructure systems*³⁴



James Street, Brisbane (Source: Tourism and Events Queensland)



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WORKING WITH INDUSTRY AND IMPROVING PRODUCTIVITY

The Queensland Government’s infrastructure pipeline is more than \$50 billion over four years from 2021–2022.

We need to ensure infrastructure sector capability and capacity is maximised to deliver this significant investment to grow the economy and support the broader Queensland community. Enhanced productivity and innovation in operations including greater use of data and digital technologies, will better equip the infrastructure sector to deliver projects that support the strategy’s vision for infrastructure as a driver of economic growth.

We don’t need to do this on our own. Our industry partners are seeking opportunities to invest in Queensland and to collaborate on infrastructure projects. Private sector participation in infrastructure planning, financing and delivery can complement government funding and bring innovation, and technical and practical expertise to proposals and projects. By working closely with industry, we will identify where and how these partnerships can provide the best outcomes and support our infrastructure and construction sectors.

▼ CHALLENGES

Declining productivity

Productivity growth in Australia’s infrastructure and construction sectors has failed to keep pace with other sectors. To support the efficient delivery of the state government infrastructure pipeline, it is crucial that actions are taken across the sector to improve productivity, facilitate growth, create new jobs and make the Queensland construction industry an attractive sector to work.



Market capacity

Significant infrastructure investments to support economic recovery across Australia and globally, along with other factors, are creating market capacity constraints which could continue into the medium term. Impacts include workforce availability and capability, and sufficient and reliable supply of material and equipment for project needs, such as timber and quarry material.



Cost of infrastructure

Infrastructure is costly, but well planned and responsive infrastructure makes our state more productive and improves our quality of life. We can gain efficiencies by involving the private sector through greater due diligence and increased commercial discipline concerning the design, construction and operation of projects. While private sector involvement can bring additional risks and costs, these can be mitigated by ensuring the right projects are selected, contracts are designed to share risk, and service needs are aligned with public and private sector outcomes.



▼ OPPORTUNITIES

Improved collaboration for infrastructure outcomes

Aligning community service needs with private sector opportunities can assist the Queensland Government to achieve better infrastructure outcomes for the community. Supporting more private sector partnerships in service need analysis, infrastructure delivery and operations promotes innovation and leads to both improved community and environmental outcomes.



Increased gender diversity, First Nations, skilled migrants and refugee participation

The infrastructure sector is dominated by men. In Queensland, around 15 per cent of all people employed by construction firms are women, with less than five per cent being women in trade and labouring roles.³⁵ Female participation is growing, and industry leaders are seeking to make workplaces more inclusive and diverse. Increasing participation rates of First Nations peoples is occurring and the Queensland Indigenous (Aboriginal and Torres Strait Islander) Procurement Policy provides a framework for further increases. The construction sector is one of the strongest drivers of First Nations peoples’ jobs growth over the last decade and requires continued focus and support for young apprentices. The construction sector also offers opportunities and pathways to better utilise the skills and experience of skilled migrants and refugees.



PRIORITY ACTIONS

1 Infrastructure Productivity and Workforce roadmap (DSDILGP)



Develop a roadmap to guide government and industry efforts to support the infrastructure and construction industry to enhance productivity, enable opportunities to assess, re-design and harness efficiencies, drive growth and address market capacity issues to ensure Queensland remains competitive and an attractive place to invest.

Developed with industry, the roadmap will aim to position the industry as a good place to work and improve diversity and participation rates of underrepresented groups such as women and First Nations peoples.

2 Setting our priorities for private investment (DSDILGP)



The government recognises the important role the private sector plays in investing in infrastructure and will work closely with industry to identify and advance infrastructure opportunities that are suitable and would benefit from private investment.

3 Enabling longer-term pipeline development (DSDILGP, QT)



Progressively build a longer-term view of infrastructure proposals to inform the Queensland Government Infrastructure Pipeline, improve coordination and sustain regional jobs, and identify opportunities for early market engagement. This work will include enhanced, longer-term capital planning (five to ten years) by agencies and Government Owned Corporations, and the development of a capital planning pipeline.

4 Embed more collaborative approaches with industry (DSDILGP)



Work with the Infrastructure Industry Steering Committee (IISC) as a primary industry engagement mechanism to identify opportunities to embed more collaborative approaches into infrastructure optioneering and delivery across the Queensland Government, building on the best practice of other jurisdictions and international experience. For example, collaborative contracting and early market engagement.

5 Develop a common user infrastructure framework (QT, DSDILGP)



Develop a common user infrastructure framework to inform future investment in the delivery of shared assets to support the development of new and existing industries where this investment delivers net benefits for Queensland.

6 Flexible procurement methods (DEPW with all agencies)



All government agencies undertaking infrastructure related procurement processes will continue to refine procurement methods to ensure risk allocation is shared. Agencies will engage with industry to balance risk, while ensuring broader government outcomes such as local capability, workforce diversity, innovation and environmental outcomes are incorporated into procurement processes.

7 Innovation in infrastructure funding and financing (QT, DSDILGP)



Continue to ensure we have the right frameworks and policy settings in place to leverage innovation in private sector funding and financing of infrastructure. The right mix of funding and financing sources can achieve timely and efficient infrastructure delivery and value for money for Queenslanders.

INFRASTRUCTURE OBJECTIVES

- Encourage jobs, growth and productivity
- Develop regions, places and precincts
- Enhance sustainability and resilience
- Adopt smarter approaches



Working with industry



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ENHANCING GOVERNANCE

Governance, accountability, transparency and confidence are integral when planning for major investments in long-life assets.

Strong leadership coupled with robust and evidence-driven decision making will support the delivery of infrastructure that is based on the needs and priorities of our communities. This requires effective frameworks, policies and practices to be maintained and implemented as well as a continual focus on building capability within the public sector. Integrated land-use and infrastructure planning will reinforce this, particularly in an increasingly complex and interconnected environment. The Queensland Government recognises that it is critical to continue to invest in and improve governance arrangements, including using place-based approaches and partnerships with industry and other levels of government. Harnessing the knowledge of local communities and industry partners will optimise infrastructure and community outcomes.

CHALLENGES

Understanding our infrastructure assets better

Information on the condition of existing assets, capacity, ability to meet demand, performance and critical gaps helps inform decision making. This information can then be used to understand demand and capacity, but also the interconnections between assets, industry trends in the sector and improve the provision of infrastructure across Queensland.



Local government infrastructure

Local governments play a central role in providing for safety, livability and prosperity in our communities. Councils plan and provide infrastructure for their communities including water, sewage treatment, transport, stormwater management, parks and community facilities. The challenge is ensuring local governments (especially in rural and remote areas) have the capacity and capability to provide services that meet the needs of their local communities.



OPPORTUNITIES



Better infrastructure coordination

Collaboration and continuous improvement of governance approaches can optimise infrastructure investment across multiple portfolios and asset classes. This can result in more multi-purpose facilities that leverage investment, are well-used and deliver a range of complementary and integrated government services. Improving the integration of infrastructure, land-use planning and economic development will better realise regional economic, community and environmental outcomes.



Portfolio planning and performance

Agencies have an active role in developing business cases for major infrastructure since the transition of Building Queensland into the Department of State Development, Infrastructure, Local Government and Planning. New infrastructure proposal development arrangements will build capability across state and local governments to maximise existing portfolio planning, proposal development and project delivery outcomes.

Asset management

The efficient and effective management of government assets is essential to the delivery of services. Using best practice in the planning, investment/procurement, management-in-use and disposal of government assets enables government to deliver better quality, value for money, environmental awareness and innovative solutions across the asset life cycle.



PRIORITY ACTIONS

1 Data-driven infrastructure planning for regions (DSDILGP, DRDMW)



Explore the use of data-driven baselines to enable strategic infrastructure planning which considers current and future infrastructure performance along with an understanding of future demand drivers across Queensland's regions and infrastructure portfolios. Analysing this data will help to improve asset utilisation, inform statewide priorities and the ongoing development of Regional Infrastructure Plans.

2 Performance through leadership (DSDILGP)



The Deputy Premier and Infrastructure Minister, and his department, will provide a sustained focus on infrastructure strategy and reform, as well as ensure capital infrastructure planning and delivery is optimised. The Deputy Premier, working with other ministers, oversees the implementation of this strategy and the supporting Regional Infrastructure Plans to align longer-term investment across government.

3 Best practice asset management (All agencies, DSDILGP)



Infrastructure providers will continue to implement best practice asset management systems that include management frameworks and technology systems. Providers will continue to prepare Strategic Asset Management Plans (SAMPs) to strengthen the linkages between services, workforce planning, digital strategies and infrastructure investment. SAMPs provide a long-term view of the interdependencies between the provision of services and infrastructure investment.

4 Post-delivery analysis and strategic infrastructure assessment (DSDILGP)



Continue to develop and embed tools such as benefits realisation and post-delivery assessment strategic infrastructure planning and policies as a critical step in capturing and understanding the impact of infrastructure beyond its physical construction and direct utilisation.

5 Improving local governments infrastructure delivery (DSDILGP)



Support improved infrastructure delivery and asset management outcomes for councils as part of the development and implementation of a new local government sustainability framework.

6 Infrastructure proposal assessment and assurance (DSDILGP, major infrastructure agencies)



Lead the execution of the Infrastructure Proposal Development Policy (IPDP), providing agencies advice to tailor the Business Case Development Framework (BCDF) and the Project Assessment Framework (PAF) for the development of proposals. This includes consideration of system wide impacts and evaluation of a range of non-infrastructure and infrastructure options to meet future service needs.

7 Improving infrastructure planning and assessment capability (DSDILGP)



Improving infrastructure planning and proposal development capabilities across Queensland Government – agencies will build and mature these capabilities, with agency training and development plans addressing identified capability needs.



Working together to improve coordination

INFRASTRUCTURE OBJECTIVES

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INFRASTRUCTURE PLANNING WITH A FOCUS ON PLACE

One size doesn't fit all. Queensland's unique and geographically dispersed communities all have diverse needs when it comes to infrastructure.

Infrastructure planning that focuses on place provides opportunities for infrastructure to meet local needs and harness the unique attributes of a place. Engaging with local stakeholders ensures that infrastructure can be adapted to local contexts and the most effective approach adopted to achieve the best outcomes for individual communities.

A focus on place will enable more targeted and holistic investment decisions by taking a cross-sectoral view of the inter-related infrastructure and amenity needs of a location. Encouraging collaboration across government agencies and building local relationships will facilitate addressing issues that are complex and require a long-term or cross-sectoral response.

CHALLENGES

Complex governance

Responsibility for planning, funding and delivering infrastructure is spread across three levels of government which can lead to fragmented decision-making and prioritisation for investment. Governance structures need to deliver integrated outcomes focused on local livable and productive communities and productive precincts.



Aligning funding

Investment in infrastructure is often necessary to unlock an industry development opportunity or growth area. However, sequencing and aligning funding for all the necessary investments can be challenging through traditional mechanisms. Success can depend on lining up several individual investment decisions across multiple infrastructure providers.



OPPORTUNITIES

Coordinated planning

Our infrastructure assets and networks are interconnected and rely on each other to function well. Improving the coordination of infrastructure planning and delivery can support a wide range of community needs. We need to broaden our focus beyond integrated land-use and transport planning to include social infrastructure and the natural environment through initiatives such as the Regional Infrastructure Plans.



Facilitating strategic precincts

Precincts can drive collaboration and economic growth. Integrated precincts can create focal points for innovation, facilitating and delivering world-class health, knowledge, innovation, resource recovery and community services centred around universities, hospitals, or major industrial areas. They leverage localised strengths to establish collaborative environments where businesses, workers and technology come together to build skills and innovate, access new market opportunities, and create jobs.



Integrated social infrastructure

Collaborative and place-based social infrastructure planning can facilitate more accessible and cost-effective human services. This approach provides opportunities for compatible services to be co-located to meet the various diverse needs of a community through multi-purpose facilities or mixed-used precincts.



PRIORITY ACTIONS

1 Developing Regional Infrastructure Plans (DSDILGP, DRDMW)



Introduce a new place-based approach to infrastructure planning that better reflects the unique strengths and opportunities of each region. The progressive development of Regional Infrastructure Plans with regional stakeholders, will recognise the important role infrastructure plays in regional economic recovery, resilience, growth, health, social connection, and livability.

2 Growth precincts to drive regional jobs (DSDILGP, DRDMW, DTIS)



Place-based regional economic strategies that leverage regional competitive strengths and bring together partners to collaborate and improve competitiveness, productivity, innovation and capacity. These will look to align various programs and initiatives, investment facilitation and attraction services, and enabling infrastructure.

3 Place-based approach to infrastructure funding (DSDILGP, QT)



Strengthen and leverage additional opportunities for place-based approaches to funding, such as the Queensland Treasury Cross-Agency Funding Framework, City Deals and Resources Community Infrastructure Fund to drive the sustainable growth of our cities and regions and realise strategic priorities and opportunities for inter-governmental investment.

4 Place-based capability for social infrastructure (DSDILGP)



Progress a social infrastructure reform and capability agenda in partnership with key stakeholders to ensure barriers to funding, planning and delivery are addressed and enhanced community outcomes are realised.

5 Better understanding SEQ growth and priorities (DSDILGP)



Develop a better understanding of the pace of growth and development across the multiple growth fronts in SEQ to better inform the potential prioritisation or sequencing of region-shaping infrastructure. This is supported by the SEQ City Deal which includes a \$620 million commitment from the Queensland Government to deliver a strategic approach to infrastructure planning and investment in this fast growing region.

6 Integrated land use and infrastructure planning (DSDILGP)



Continue to improve the coordination and integration of land-use and infrastructure planning across agencies and all tiers of government to effectively prioritise infrastructure planning and delivery.

7 Prioritising infrastructure planning for growth areas (DSDILGP)



Evaluate recent infrastructure planning approaches for high-growth communities, including the piloted Infrastructure Coordination Plans, and other Social Infrastructure Investment Strategies (piloted for a Priority Development Area) to inform a leading practice that ensures communities of highest need are adequately serviced and well-coordinated.

8 Precinct governance framework (DTIS)



Develop a framework to determine the appropriate governance mechanisms to support the development or activation of a precinct, ensuring the interactions between institutions, private sector and government deliver desired outcomes through shared agendas and collaborative approaches.

9 Livable communities (DSDILGP)



Encourage local governments to incorporate the Planning Regulation 2017 assessment benchmarks and the Model Code for Neighbourhood Design provisions into local planning schemes to support the State Interest – Livable Communities in the State Planning Policy to promote livable, well-designed and serviced communities.



Latrobe Terrace, Brisbane
(Source: Brisbane Marketing)

INFRASTRUCTURE OBJECTIVES

-  Encourage jobs, growth and productivity
-  Develop regions, places and precincts
-  Enhance sustainability and resilience
-  Adopt smarter approaches



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RESILIENCE AND SUSTAINABILITY

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

Infrastructure can impact environmental sustainability through changes to landscapes, ecology, biodiversity and natural habitats, water resources and the water environment. In addition to the physical impacts of infrastructure, there are impacts from emissions embedded in construction materials and processes, and from energy use during the construction and operation of infrastructure and associated services. Climate also impacts infrastructure and infrastructure needs to adapt to future climates. Ensuring infrastructure systems perform well under a changing climate, and in the face of other threats such as geopolitical challenges, will be essential to success.

Natural systems have long been recognised for their ability to deliver or contribute to core infrastructure services such as water purification and storage, flood mitigation, irrigation, and electricity generation. By better integrating green, blue and “grey” infrastructure systems, building in circular economy principles and focusing on resource recovery, we can produce cheaper, lower-emitting and more resilient services to support our future low-carbon economy.

CHALLENGES

Resource recovery



Queensland faces a number of challenges with resource recovery. End-of-life waste such as decommissioned renewable energy infrastructure, tyres and clothing, as well as by-products from the timber industry, can be recycled and should be diverted from landfill. Challenges include efficiently managing waste and waste material supply chains due to Queensland’s large land area and dispersed population, diverse regional economies requiring infrastructure of different types and scale, and the impact of natural disasters.

Climate change

Increases in greenhouse gases from human activities result in changes to the global climate.³⁶ Seventy per cent of Australia’s greenhouse gas emissions that drive climate change are either directly created, influenced or enabled by infrastructure.³⁷ The infrastructure sector must continue to reduce both operational and embodied emissions to ensure it contributes to Queensland’s target of 30 per cent of 2005 levels by 2030, and zero net emissions by 2050.



Resilience and climate adaptation



Queensland is Australia’s most disaster-affected state, with the frequency and scale of natural disasters increasing as a consequence of climate change. Our vulnerability extends beyond natural hazards such as flood, fire, sea level rise, heatwaves and cyclones to shocks and stresses like pandemics, cyber security issues and biosecurity (e.g. fire ant infestations). We need to integrate resilience and climate adaptation into the infrastructure lifecycle to ensure future infrastructure can withstand, recover from and adapt to the effects of all hazards, shocks and stresses to better manage risk and keep Queenslanders safe.

OPPORTUNITIES



Circular economy

A circular economy seeks to keep resources in their highest value use for as long as possible by eliminating waste and pollution, circulating products and material at their highest value, and regenerating nature.³⁸ Transitioning to a circular economy can ‘close the loop’ in resource consumption, minimising waste and the associated economic loss.³⁹



Design infrastructure that positively contributes to the environment

Infrastructure can be designed to protect and enhance environmental values including biodiversity. Existing infrastructure can be reused to minimise the need to source new materials and redesigned to reduce energy and water consumption. Where new infrastructure is required, infrastructure can be designed to be sensitive to the surrounding environment, embed circular economy principles by using recycled or sustainable materials to minimise waste, and aim for carbon neutral material and operating systems.



PRIORITY ACTIONS

1 Brisbane 2032 sustainable infrastructure (DSDILGP, DEPW, DTMR, DES)



Queensland Government and its Games partners will minimise the climate and environmental footprint of Brisbane 2032. Where new permanent infrastructure or significant upgrades are required, Brisbane 2032 will implement best-practice industry standards in the planning, design and delivery of sustainable, resilient, resource-efficient, climate-positive and inclusive Games infrastructure.

2 All-hazards approach to resilience planning (QRA, QFES, DSDILGP, QH)



Deliver a whole-of-system, all-hazards approach to resilience planning including disaster preparedness, cyber security and pandemic planning. This approach should consider interdependencies across a range of systems and support services, including critical infrastructure to reliably deliver essential services to all Queenslanders.

3 Continue to implement the Queensland Betterment Program (QRA)



Continue to work with the Australian Government and local governments to rebuild essential public assets to a more climate-resilient standard to help withstand the impacts of future climate change and natural disasters.

4 Better performing buildings (DEPW with other agencies)



Develop a consistent approach to applying nationally recognised building performance ratings across Queensland Government agencies to improve resilience and reduce the operational costs of new and existing assets. Sustainable and resilient buildings initiatives will be prepared for improving the performance of privately-owned buildings.

5 Reducing emissions from infrastructure (DSDILGP)



Develop a roadmap exploring measures and actions to reduce emissions associated with the construction, operation and maintenance of Queensland Government infrastructure.

6 Resource recovery infrastructure (DES)



The Queensland Government will work with industry and local government to develop a series of regionally developed plans for waste and resource recovery infrastructure investment opportunities. This approach is intended to enable the diversion of material from landfill and to transform this sector along with circular economy principles.

7 Circular economy (DES with other agencies)



Work with all agencies to support the integration of circular economy principles into infrastructure design and delivery to support achieving zero net emissions, increased resource recovery and recycling, increased uptake of recycled-content, and drive sustainable economic development.

8 Sustainability assessments (DSDILGP, DES with all other agencies)



Explore the widespread adoption of sustainability assessments for all Queensland Government infrastructure projects with budgets exceeding \$50 million in accordance with schemes such as the Infrastructure Sustainability Council's Infrastructure Sustainability Rating Scheme or the Green Building Council of Australia's Green Star rating tool.

9 Green and blue infrastructure (DSDILGP, DES)



Develop, preserve and enhance green and blue infrastructure to mitigate the effects of climate change and contribute to healthy lifestyles by maintaining and enhancing biodiversity and wildlife habitats, increasing the protected area estate, improving water and air quality, protecting green corridors, facilitating urban and vertical farming, implementing water sensitive urban design and increasing shade in urban areas through increased tree coverage.

10 Modern construction methods for social infrastructure (DSDILGP)



Explore with industry and state agencies a series of social infrastructure pilot projects that adopt modern construction methods. For example, off-site manufacturing of building components or modules, with a view to subsequently developing a whole-of-government strategy for modern construction methods that support the use of a digital by default approach and more timely, cost-effective delivery of sustainable and resilient buildings.

11 Supply chain resilience (DAF, TIQ, DSDILGP, DRDMW)



Improve the resilience of both domestic and export supply chains for key sectors including construction, manufacturing, medical, food and agriculture. Supply chains can face disruptions caused by natural disasters, pandemics and geopolitical/trade and gradual but uncertain climate change impacts.

INFRASTRUCTURE OBJECTIVES

- Encourage jobs, growth and productivity
- Develop regions, places and precincts
- Enhance sustainability and resilience
- Adopt smarter approaches



Flood Damage – Boxer Road, Logan
(Source: Queensland Reconstruction Authority)



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▼ CASE STUDY

Central Queensland Infrastructure Plan (CQIP)

The Central Queensland Infrastructure Plan takes a long-term place-based approach to provide a framework to coordinate and prioritise regionally significant infrastructure needs to support regional priorities. Building on the region's strengths and focusing on its unique needs, the CQIP identifies how infrastructure can catalyse economic development, growth, and livability and support industry decarbonisation through renewable hydrogen and clean manufacturing.

Central Queensland traverses the Tropic of Capricorn extending from the Northern Territory border to the east coast, taking in the major centres of Rockhampton, Gladstone, Emerald and Longreach. The region's strengths lie in resources, agriculture, education, health and tourism. It is one of our largest beef producers and boasts one of Australia's largest bulk commodity ports at Gladstone, exporting resources and agricultural products.

The CQIP will strengthen and diversify traditional industries by identifying infrastructure that can add value to create jobs and boost productivity. The CQIP's focus on enabling the right social infrastructure such as schools, hospitals and housing, and improving connectivity – both digital and physical – will ensure people are attracted to live and remain in the region.

This place-based approach ensures that infrastructure is considered as an interconnected system, where employment opportunities, education, health, livability and the environment are all interlinked. The plan is being developed through consultation with industry, peak body and government stakeholders, and sits alongside the Central Queensland and Central West statutory regional plans. Together, these documents provide clear direction for state and local government planning.



Gladstone Harbour