

# Transport infrastructure





### Transport infrastructure

Our long history of project management and delivery of transport infrastructure, including modern roads and bridges, allows us to assist our clients with specialist procurement and management services for projects outside of standard operations.

This includes bridge replacements, emergency rehabilitation, specialised geotechnical stabilisation works, creek bank stability improvements, drainage improvements, design management and construction management of major capital roadworks projects.

Our state-wide presence, with experienced infrastructure project managers, can be drawn upon as required to address short or longer term resourcing requirements.

John Anderson 0412 393 480 john.anderson@pwa.nsw.gov.au

### Our expertise

NSW Public Works (NSWPW) has a **state-wide** presence and a team of experienced infrastructure **project managers** that can be drawn upon as required to address short or longer term **resourcing requirements**.



- Road and slope stabilisation.
- Bridge inspections and construction management.
- Intersection management and streetscape improvements.
- Surveying.
- · Land and Easement Acquisitions.
- Asset management and maintenance.
- · Project planning and management.
- Design management.
- Procurement.
- Construction management.
- Contract administration.

3

### Karrara Bridge Road link, Dapto

Wollongong City Council's biggest infrastructure project created a vital flood-free road link between Dapto and Horsley. Building the new four-lane 1.3km link road with shared paths involved major earthworks and construction of supplementary drainage structures and signalised intersections. The two bridges that span more than 230m consist of 210 bridge planks and 20 "super T" bridge girders.

NSWPW managed the project's design concept planning, detailed design and documentation, procurement and construction management, and administration through to completion.

The project was delivered ahead of time and under budget despite encountering difficult and complex site constraints.





### Stingray Creek Bridge, Port Macquarie

Stingray Creek Bridge was 60 years old when Port Macquarie Hasting Council engaged NSWPW to project manage a replacement.

The construction of a new 180m bridge included the relocation of water and sewer assets along with power and telecommunication lines. The major risks for the project were the environment and safety risks of working above a waterway with a sensitive ecosystem. Traffic staging was carefully considered to ensure that local traffic could be maintained throughout the construction period.

NSWPW completed the design finalisation, procurement of the contractor and management of the construction contract which included bridge replacement, services adjustments, approach road works and demolition of the existing bridge including approaches.





### Bulli Pass landslide barrier, Bulli

Roads and Maritime Services engaged NSWPW to assist in the development and delivery of the Bulli Pass Landslide Mitigation Barrier Project.

The project comprised of the design, procurement and installation of approximately 1.1 km of a high energy and volume capacity barrier and slope stabilisation works.

The barrier is 3.5m high and is a proprietary (Geobrugg) high tensile steel mesh barrier system that is located above the existing road.

Bulli Pass is now protected by a landslide barrier that is the longest of its kind in Australia.





### Ellerton Drive extension, Queanbeyan

NSWPW successfully delivered the design phase of the Ellerton Drive Extension and provided project management support to allow the project to be construction ready.

The key features of the project include a two lane single carriageway design with climbing lanes and a bridge crossing over Queanbeyan River and Barracks Flat Drive.

Queanbeyan Palerang Region Council completed the construction of the 4.6km extension of Ellerton Drive terminating at the intersection of Old Cooma Road and Edwin Land Parkway.





 $\mathbf{1}$ 

### Heavy vehicle rest area, Wollongong

An \$8 million heavy vehicle rest area to manage fatigue and improved safety was funded by the Federal Government to replace an existing informal rest area near the intersection of M1 Princes Motorway and Clive Bissell Drive.

NSWPW was engaged to undertake the design management role including managing the quality and progress of the design consultants, REF preparation and approvals, Aboriginal Heritage Impact Permit, amenities design, water, wastewater and electricity service connections.

The project provided 10 parking spaces for heavy vehicles, an upgraded rest area including new toilets, rubbish bins and undercover picnic tables. The project was completed in June 2017 with NSWPW also providing design advice during construction.





## Broughton Pass Road, Wollondilly

After severe storm damage, Wollondilly Shire Council required the Heritage Broughton Pass Road Bridge to be repaired.

The scope of works included under bridge survey and concrete repairs, sealing of the bridge deck and soffit and installation of a guard rail across the existing bridge deck. Reconstruction of the Wilton abutment included reconstruction/repair of the sandstone retaining walls to satisfy heritage requirements.

NSWPW was involved in all stages of the project including preliminary investigations, technical specification, development of the contract documentation, tender phase and construction management which included all project and risk management, construction administration and defects management.





### Mogendoura Bridge, Eurobodalla

The project scope for Mogendoura Bridge was to project manage the replacement of an existing four span single lane timber bridge with the construction of a new two span single lane concrete bridge in accordance with Roads and Maritime Services' QA Documents within a GC21 framework.

Works were completed to Council and the community's satisfaction, despite an east coast low flooding the worksite.

Acid sulphate soils were managed without environmental lost and works were completed with no loss of time. The public are now provided with a safer smoother travel surface, at a reduced ongoing maintenance cost to Council.





### Mount Keira Road, Wollongong

NSWPW was requested by Wollongong City Council to provide project management services for the slope stabilisation works to Mount Keira Road.

The upper slope stabilisation works included hand scaling via rope access, the supply and installation of rock catch fences, galvanised rock dowels, dowel/mesh supported shotcrete, rock fall mesh and vertical column cave support.

The lower slope stabilisation works included clearing of vegetation, storage of existing road guard rail, re-grading of embankment slope, 1.5m widening of a concrete road and the supply and installation of anchors, PVC slotted incline drains, scour protection matting and slope stabilisation mesh.





6 7

# Bowling Alley Point Bridge, Nundle

NSWPW was engaged by Water NSW as onsite contract managers for the construction of Bowling Alley Point Bridge, River Road and Nundle Road.

The construction of a new 180m bridge included the relocation of water and sewer assets along with power and telecommunication lines. Traffic staging was carefully considered to ensure that local traffic could be maintained throughout the construction period.

NSWPW completed the design finalisation, procurement of the contractor and management of the construction contract which included bridge replacement, services adjustments, approach road works and demolition of the existing bridge including approaches.





### Pedestrian Bridge Moss Vale

As part of Wingecarribee Shire Council's capital works program, a shared pathway was constructed at Moss Vale alongside an existing vehicular bridge.

NSWPW was engaged to assist in the project delivery planning which included design review, procurement programming advice and preparation of the request for tender package including contract clauses. During the works, we administered the contract on the client's behalf, including the review of all aspects of the contractor's safety management planning and implementation and quality assurance verifications.

A high-quality project was successfully completed to Council's satisfaction and in line with the agreed budget and program.





### Pyrmont Bridge, Sydney

Pyrmont Bridge was constructed in the early 1900s with the world's first electrically operated swing span to allow recreational and commercial vessels access to Cockle Bay.

NSWPW were engaged by the bridge owners, Place Management NSW, to manage the design, documentation, tendering and construction phases of remediation works to restore the bridge's deteriorated structural elements.

The complete restoration will be undertaken in a number of stages, with work to date accounting for the restoration of the timber pier sets. Future stages will restore the timber trusses and the deck to ensure the bridge continues to provide safe access across Darling Harbour.





### William James Bridge, Mount Keira

The project involved the demolition of the existing bridge and staged construction of a new 18m single span bridge with an overall width of 13m, incorporating a shared pathway.

Wollongong City Council engaged NSWPW to provide project management services during the design, tendering, construction and post construction phases.

Despite encountering difficult foundation issues, including unsuitable road sub-grade and variable creek bed conditions, the project was completed on time and on budget.

The new bridge provides far safer access for pedestrians, cyclists and drivers using Cordeaux Road.





 $8 \hspace{1cm} 9$ 

### Why choose NSW Public Works?



Accredited for planning and delivery of capital works

NSWPW is accredited under the NSW Government Agency Accreditation Scheme for Construction to manage the planning and delivery phases of construction and capital works procurement. NSW State and Local Government entities can directly engage the services of NSWPW under the provision of NSW Government Procurement Board Direction PBD 2020-04 and Section 55 of the Local Government Act 1993, providing efficiencies and cost savings.



Strong focus on quality, environmental and safety management NSWPW operates under triple certification for quality, occupational health and safety (WHS) and environmental (QSE) management systems. These systems and processes provide the foundation for delivering quality projects and a continuous improvement culture, that embraces QSE leadership at all levels and integrates QSE into all activities. NSWPW' Project Management Framework is the backbone of our quality system and is used to manage our projects and ensure we deliver to agreed requirements.



State-wide resources

Regional clients benefit from our state-wide network of offices enabling them to source expert project management personnel familiar with the conditions and construction industry issues in their area. This proximity reduces servicing costs, facilitates improved stakeholder communications and enables us to respond quickly to your needs, providing a single point of contact for all services.

# Government relationships and knowledge

Successful delivery of complex infrastructure projects relies on effective interaction with stakeholders and regulatory government agencies. NSWPW' unique position within NSW Government enables us to bridge the gap between our clients and Government stakeholders to ensure necessary consultations and approvals are undertaken efficiently and effectively.



We place considerable emphasis on advising clients of their risks on projects, including the options and costs to manage these risks. Wherever possible, risks are identified early and inform our planning and procurement strategy development processes. Risks are continuously monitored and updated as projects progress and discussed and managed with clients and contractors.

### Working across NSW

### HUNTER NEW ENGLAND REGION

#### Newcastle

117 Bull Street Newcastle West NSW 2302

#### Tamworth

155-157 Marius Street Tamworth NSW 2340

#### Inverell

240 Byron St Inverell NSW 2360

#### Armidale

85 Faulkner St Armidale NSW 2350

#### **NORTH COAST REGION**

#### Lismore

120 Dally Street Lismore NSW 2480

#### **Coffs Harbour**

359 Harbour Drive Coffs Harbour NSW 2450

#### **Port Macquarie**

Level 2, 41-47 Horton Street Port Macquarie NSW 2444

#### **SYDNEY METRO REGION**

#### **Parramatta**

4 Parramatta Square 12 Darcy Street Parramatta NSW 2150

#### The Rocks

66 Harrington Street Sydney NSW 2000

#### **SOUTH COAST REGION**

#### Wollongong

Level 3, Block E 84 Crown Street Wollongong NSW 2500

#### Goulburn

Suite 5, 167 Auburn Street Goulburn NSW 2580

#### Moruva

66 Campbell Street Moruya NSW 2537

#### Queanbeyan

Ground Floor East 11 Farrer Place Queanbeyan 2620

#### Nowra

5 O'Keefe Avenue Nowra NSW 254

#### **RIVERINA/WESTERN REGION**

#### **Bathurst**

Level 1, 346 Panorama Avenue Bathurst NSW 2795

#### Dubbo

34 White Street Dubbo NSW 2830

#### **Broken Hill**

Level 1, 32 Sulphide Street Broken Hill NSW 2880

#### Griffith

104 - 110 Banna Avenue Griffith NSW 2680

#### Wagga Wagga

2-6 Coleman Street Wagga Wagga NSW 2650

#### Dareton

1998 Silver City Highway Dareton NSW 2717



10 11

### **NSW Public Works**



**T** 1300 00 88 88

**E** publicworks@pwa.nsw.gov.au