

NSW & ACT



**IPWEA**

INSTITUTE OF PUBLIC WORKS  
ENGINEERING AUSTRALASIA



# ENGINEERING EXCELLENCE AWARDS 2022

Premier Partners





# FROM THE MUNICIPAL ENGINEERING FOUNDATION



**The Engineering Excellence Awards are a major highlight in the IPWEA NSW and ACT Division calendar. This year we received more than 100 submissions across all categories which is a great achievement in itself.**

The Excellence Awards enables all of us to appreciate the diversity and innovation of work undertaken by members of IPWEA NSW and ACT and their employer organisations. The Engineering Excellence Awards also give the wider community an insight into the outstanding Public Works and Services being delivered in their communities.

Nominating a project for the Excellence Awards gives Members the opportunity to showcase their talents and the production of this publication provides IPWEA NSW & ACT with a valuable reference resource. NSW and ACT Award category winners automatically become the NSW and ACT nominations for the Australasian IPWEA Awards which occur every two years. This process ensures that NSW and ACT provides a benchmark for excellence in Public Works and Services for all Australians.

The Trustees of the Municipal Engineering Foundation join with me in congratulating all those who have taken the time and made the effort to nominate projects for this year's Excellence Awards. We would also like to commend the 2022 Excellence Awards judges, Leon Patterson, Karl Schimke, Greg Moran and Bob Missingham. They have spent a

considerable amount of time travelling across New South Wales to assess this year's projects and have done so with immense professionalism, enthusiasm and attention to detail.

Thank you also to David Niven, Paul Yannoulatos and Terry Winning who assisted in the judging of the Road Safety Award. I also want to thank Susie Lyall and Tamar Aslanian for their difficult task of judging the David Abbott Award and to Sean Irvine for judging the Public Works Leader of the Year Award.

I would like to thank our Award Partners for their support: Austroads, Autodesk, Boral Asphalt, Dial Before You Dig, McArthur, Roads and Transport Directorate, Pro-Visual, Public Works Advisory and Water Directorate. We also would like to congratulate David Andrews for becoming an Emeritus Member of our prestigious Organisation, very well deserved.

As well as supporting the Excellence Awards, the Foundation is responsible for providing scholarships, endowments for National Conferences enabling participation and exposure to new ideas early in the careers of young engineers.

The purpose of the foundation is to expand the knowledge and skills of Public Works Engineering and this objective is met in all these activities.

**Chris Watson**

Chairman, Municipal Engineering Foundation

# FROM THE JUDGES



**The quality of the submissions in 2022 was outstanding. The value of the submissions has dramatically increased with multi-million dollar projects becoming the norm.**

It is noted that to deliver such projects our Members need to be highly competent and skilled and this has proven to be the case. The future of works performed by Members shows that IPWEA NSW & ACT is in good hands.

This year there was an increase in the number of submissions by 23%, which considering the circumstances was a very good outcome and we congratulate those who submitted these excellent projects.

Again, not everyone can receive an award and the fact that you may not have received one does not reflect on the quality of those projects submitted.

Congratulations to all.

## **Metro Judges**

- Leon Patterson
- Karl Schimke

## **Category 9 Judges**

- Susie Lyall
- Tamar Aslanian

## **Regional Judges**

- Greg Moran
- Bob Missingham

## **Category 10 Judge**

- Sean Irvine

## **Category 7 Judges**

- Paul Yannoulatos
- Terry Winning
- David Niven



## CATEGORY 1A



### WINNER

**Northern Beaches Council**  
Richard Road, Scotland  
Island, Offshore Road and  
Drainage Construction



### DESIGN AND/OR CONSTRUCTION OF A LOCAL GOVERNMENT/PUBLIC WORKS PROJECT LESS THAN \$500,000

#### JUDGES COMMENTS

Scotland Island is a small offshore island community located in Pittwater with a population of about 1,000 residents. Narrow single lane roads give access around the island. Many of these roads are unsealed and lack formal drainage.

Council worked with the Scotland Island Residents Association (SIRA) to prioritise various roadworks projects to improve all weather access and safety around the island.

The works at Richard Road, Scotland Island consisted of kerbing, drainage, retaining walls, pavement reconstruction and asphalt surfacing. The Richard Road reconstruction project assembled a disciplinary team of road, stormwater and construction engineers to plan, design and construct the works.

This project involved extensive planning, scheduling and coordination for the successful completion within time and budget in a remote site across water using a 30 tonne barge for transport of all materials and equipment.



#### HIGHLY COMMENDED

**Shoalhaven City Council**  
Rebuild Toombloomobah Bridge  
after the Currowan fire

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## CATEGORY 1B



### WINNER

**BLAYNEY SHIRE COUNCIL**  
CentrePoint Sport and Leisure  
CentreAccessibility Upgrade  
and Modernisation Project



## DESIGN AND/OR CONSTRUCTION OF A LOCAL GOVERNMENT/PUBLIC WORKS PROJECT GREATER THAN \$500,000 BUT LESS THAN \$5 MILLION

### JUDGES COMMENTS

Our Surf Lifesavers are volunteers who selflessly give up their weekends and risk their lives to ensure the community are able to enjoy a day at the beach. They also provide training programs and support their local communities in many ways which is clear in their vision and mission.

This project supports their vision and the Council's City Operational Plan by providing new and upgraded community facilities that are multipurpose and with improved accessibility. The refurbishment facilities for the Coogee Surf Life Saving Club, which offers an improved space for their base of operations, as well as being a function and training space for the community. It is a demonstration of sustainable asset renewal and contemporary design, which respects the history and future of the services delivered to the community.

The club and Randwick City Council have successfully delivered this international award-winning building due to genuine collaboration, with the community as our driver and guided by our collective vision of a "sense of community".



### HIGHLY COMMENDED

#### **Georges River Council**

Charles Pirie Inclusive Sporting Amenities

#### **Kempsey Shire Council**

Upgrade of Stuarts Point Foreshore Reserve

#### **Randwick City Council**

Coogee Surf Lifesaving Club Refurbishment

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## CATEGORY 1C



### WINNER

#### CITY OF PARRAMATTA COUNCIL

Escarpment Boardwalk between Rangihou Reserve and Charles Street Weir



## DESIGN AND/OR CONSTRUCTION OF A LOCAL GOVERNMENT/PUBLIC WORKS PROJECT GREATER THAN \$5 MILLION

### JUDGES COMMENTS

The Escarpment Boardwalk is a 230m on-grade path through Rangihou Reserve (with an underpass at Gasworks Bridge) and a 280m elevated boardwalk along the northern bank of Parramatta River. A considerable length of the site (from Charles Street Weir to Gasworks Bridge) is within a dynamic marine environment subject to tidal inundation. The Parramatta River is a navigable channel with a regular ferry service. The alignment of the elevated boardwalk along the northern bank of Parramatta River abuts a near vertical cliff directly off the waterline consisting of weathered shale; which also has a significant natural heritage and aesthetic value. The Escarpment Boardwalk located to the north west of Parramatta CBD, was a key missing link of the Parramatta Valley Cycleway shared off-road path. Completed in March 2021, it now provides a direct and accessible shared path between Charles Street Weir and Rangihou Reserve.



### HIGHLY COMMENDED

#### Blacktown City Council

Warwick Lane Transformational Project

#### Snowy Valleys Council

Tumbarumba - Rosewood Rail Trail

#### Tamworth Regional Council

Northern Inland Centre of Sporting Excellence Stage 2

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## CATEGORY 2



### WINNER

**GEORGES RIVER COUNCIL**  
Standardised Design Across  
Amenities Blocks



## NEW OR IMPROVED TECHNIQUES INCLUDING INNOVATION AND/ OR INTRODUCTION OF TECHNIQUES OR OUTSTANDING MANAGEMENT INITIATIVES OR OUTSTANDING ACHIEVEMENT IN ASSET MANAGEMENT

### JUDGES COMMENTS

From 2016 onwards, the newly amalgamated Georges River Council set out to upgrade and standardise all public amenity buildings.

Key features are :

- Common architectural 2 tone brickwork pattern
- Easier maintenance and more effective cleaning from the design of a separate (rear) service corridor.
- Safer public amenity with lighting and automatic locking systems to reduce vandalism.
- Better outcomes being achieved through community consultation, D.D.A. compliance and concerns raised over security and anti-social behaviour.

This approach is being currently applied to over 34 sporting amenity buildings from small, medium and large, all allowed by this adaptive approach



### HIGHLY COMMENDED

**Sutherland Shire Council**  
Graffiti Management Policy and Plan

**Eurobodalla Shire Council**  
Eurobodalla Resilience Plan

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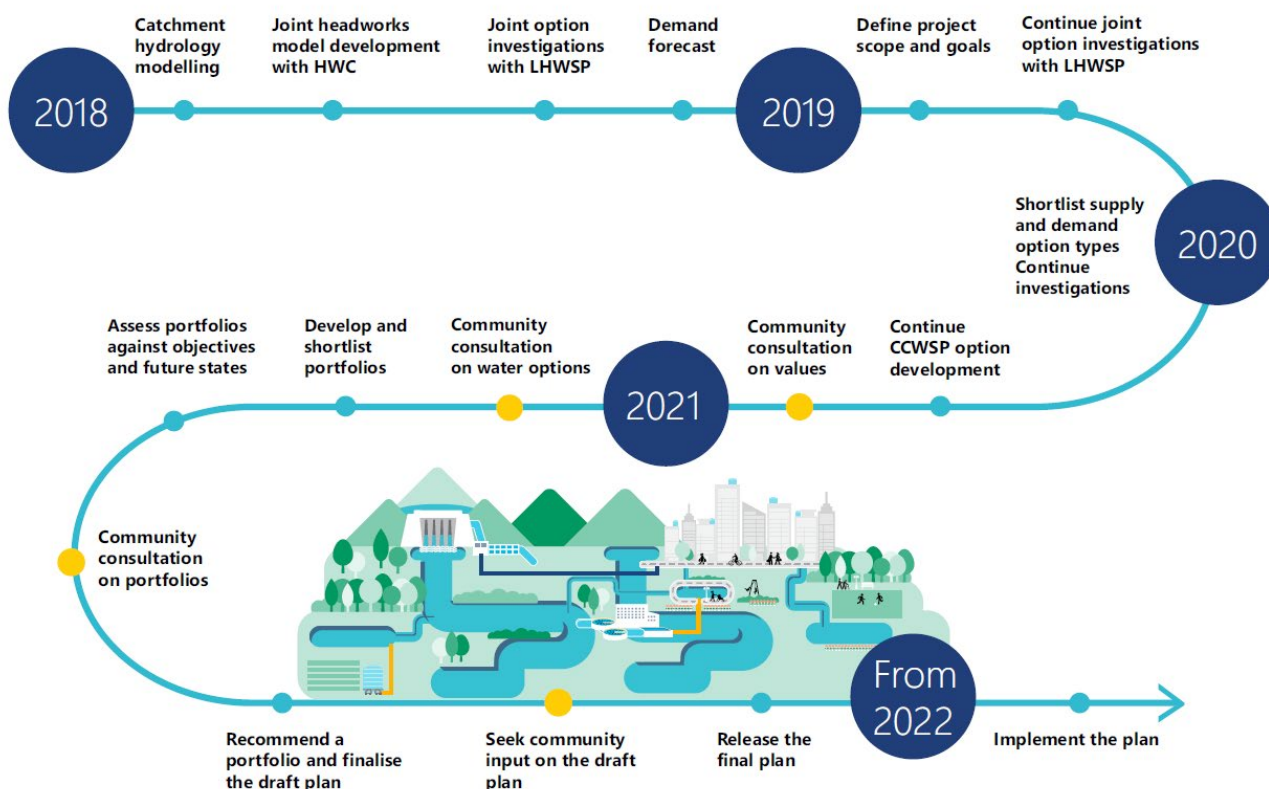


## CATEGORY 3



## WINNER

**CENTRAL COAST COUNCIL**  
Central Coast  
Water Security Plan



## INNOVATION IN WATER SUPPLY AND WASTEWATER

### JUDGES COMMENTS

The Central Coast Water Security Plan is a drinking water plan for our growing community. The plan has been developed in collaboration with Hunter Water Corporation and Department of Planning, Infrastructure and the Environment. It replaces the existing Water Plan 2050, prepared in 2007 and provides a resilient and sustainable water future that promotes regional health and prosperity, while being supported by the community.

As the Central Coast grows, so does the demand for water. However, our current infrastructure can only supply us with a limited amount of water, so we need to address ways to grow our supply, to meet our future demand. We need to plan for new supplies well in advance to allow for them to be developed in time, so we are ready to accelerate the plan if we experience shocks such as drought. The plan is agile, efficient, collaborative and cost effective.



### HIGHLY COMMENDED

#### Bega Valley Shire Council

Brogo Temporary Water Treatment Plant

#### Riverina Water County Council

Wagga Wagga Water Treatment Plant

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## CATEGORY 5



### WINNER

**CITY OF SYDNEY COUNCIL**  
Saunders and Miller Street  
Cycleway



## EXCELLENCE IN ROAD SAFETY ENGINEERING

### JUDGES COMMENTS

This is an inner city, 450m long cycle path which links the CBD with the Anzac Bridge and services one of the busiest cyclist corridors in the state. The cycleway provides a dedicated facility, which is separated from other vehicles, for people riding. The project was initiated, developed and delivered by the City of Sydney Council.

The location, usage and the number of cyclist injury crashes elevated the strategic importance of this cycleway at both a local and state level. Through close consultation with stakeholders, the City of Sydney developed innovative concepts to provide a physically separated cycleway in a challenging, inner city urban environment with complex competing interests. Road Safety Audits were completed as part of the design development. The project also included other local amenity inclusions like the provision of a new pedestrian crossing and street lighting, drainage and traffic signal improvements.



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# AR DIGITAL INTERACTIVE GUIDES ASSIST HEALTH & SAFETY EXCELLENCE

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## CATEGORY 6



### WINNER

#### SHOALHAVEN CITY COUNCIL

Shoalhaven Glass  
Recycling Facility



## ENVIRONMENTAL ENHANCEMENT PROJECT OR INITIATIVE INCLUDING RECOVERING, RECYCLING AND REUSING

### JUDGES COMMENTS

Shoalhaven City Council became increasingly concerned that a significant amount of glass collected in the kerbside recycling system was being lost. Players in the market focussed on larger clean cullet for recycling back into bottles and smaller clean cullet for crushing into glass sand. However, the reject found in comingled material recovery facilities, containing high amounts of contamination, was becoming a high-volume problem that usually ends up in landfill.

Council saw an opportunity to focus on this "legacy" glass and design a system to recover this material and return it to the circular economy. In January 2020, Council commenced laying the slab for an in-house designed glass processing plant at our recycling and waste depot in West Nowra. Commissioned in May 2021 the washed glass sand has attracted interest from several diverse operators with over 2,000 tonnes sold in the first 10 weeks of production.



### HIGHLY COMMENDED

#### Georges River Council

Gannons Park Water Quality Improvement and Stormwater Harvesting Scheme

#### Blacktown City Council

Popondetta to Whalan Cycle Path:  
An Innovative use of Plastic Bags

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PRODUCTS



## CATEGORY 7



### WINNER

**PARKES, FORBES AND  
LACHLAN SHIRE COUNCILS**  
Load Restraint Education  
Project



## LOCAL GOVERNMENT EXCELLENCE IN ROAD SAFETY

### JUDGES COMMENTS

The Load Restraint Education Project was funded through NHVR's Heavy Vehicle Safety Initiative. It focused on the safe transportation of hay bales, machinery and general freight.

A multi-agency Project Steering Committee, comprised of members from Parkes, Forbes and Lachlan Shire Councils along with NSW Police, NSW Farmers and Transport for NSW, oversaw the project's development and implementation. The project aimed to increase load restraint knowledge and decrease the number of load restraint breaches and incidents on local roads. Project strategies included; a pre and post online awareness quiz, the development of how to videos and accompanying fact sheets, promoting case studies and a Load Restraint Village Tour to take load restraint information directly to the farming community.

More than 100 farmers attended the load restraint sessions and their feedback was very positive. The

results show that local load restraint knowledge has increased and load restraint breaches have decreased by 69%.



### HIGHLY COMMENDED

#### Central Coast Council

Using Innovative Technology to Improve Road Safety Around the Central Coast

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## CATEGORY 8



### WINNER

**FAIRFIELD CITY COUNCIL**  
Hughes Street Multi Deck  
Car Park Cabramatta



## MULTI-DISCIPLINARY PROJECT MANAGEMENT

### JUDGES COMMENTS

Fairfield City Council have converted an existing 'open' carpark into a new multi deck car park, to provide an additional 198 paid parking spaces for commercial delivery vehicles and public cars. The work includes changes to both the surrounding road network, the internal circulation of the two existing car parks, and Dutton Lane loop roadway that surrounds the car parks.

The project contributes to the rich cultural fabric of Cabramatta and is sympathetic to adjoining developments in bulk and scale. The custom-designed facade to the upper levels of the new building and a new northern walkway to the original Dutton Lane car park incorporates an array of colours, arranged in a seemingly random sequence.

East and west elevations of the new building integrate landscape on the upper levels, in the form of perimeter edge planters containing a bamboo screen. The planting serves to soften the shape of the new building and bring a sense of nature into

the heart of the Cabramatta CBD. Also the car park includes irrigation to the planter boxes, rainwater detention tanks, solar panels and electric car charging spaces.



### HIGHLY COMMENDED

**City of Ryde Council**  
Kings Park Masterplan Project

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# Roads and Transport Directorate

*A collaboration between IPWEA NSW & ACT and LGNSW*

**Support NSW local government  
to deliver an improved road and  
transport network to the  
community.**

ROADS AND TRANSPORT DIRECTORATE  
NSW LOCAL ROAD  
CONSTRUCTION COST  
FORECASTS  
2020 - 2030

ROADS AND TRANSPORT DIRECTORATE  
ROAD INSPECTION MANUAL  
A risk-based approach  
to managing road defects

ROADS AND TRANSPORT DIRECTORATE  
ROAD ASSET BENCHMARKING PROJECT  
FINDINGS REPORT  
AUGUST 2020

<https://ipweansw.org/roadsdirectorate/>





## MULTI-DISCIPLINARY PROJECT MANAGEMENT

### JUDGES COMMENTS

The Grafton Regional Art Gallery is currently under the management by Clarence Valley Council after the historical Prentice House was purchased in 1985. The council identified a need to upgrade the existing Grafton Regional Art Gallery as it has substantially outgrown the current infrastructure, which is impacting negatively on the overall cultural experience.

In order for the Grafton Regional Art Gallery to be better recognised within the industry and become successful when applying for exhibits, the project must adhere to The National Standards for Australian Museums and Galleries on best practice.

Construction works commenced in 2020 and completed early 2021. The project resulted in the successful delivery of a high-quality gallery space complete with commercial kitchen, retail and cafe space, training and function spaces.





# SPECIAL LOCAL GOVERNMENT BRIDGE DEVELOPMENT AWARD



## WINNER ROADS AND TRANSPORT DIRECTORATE TIMBER BRIDGE WORKING PARTY



## MULTI-DISCIPLINARY PROJECT MANAGEMENT

### JUDGES COMMENTS

The Timber Bridge Working Party was established when the Roads & Transport Directorate was created in 2004. It was established by a group of committed IPWEA NSW members and enhanced by members from State agencies, and the private sector.

The wealth of knowledge and strength of purpose determined its success. The results since inception include technical documents, designs and guides to assist local government manage its aging bridge stock and address the issue of the lack of funding for the replacement of timber bridges. So, after 15 years of research, data collection, collaboration and representation, funding success has been achieved with the NSW Government's \$500 million Fixing Country Bridges program.

The achievements of the group are significant and are an excellent example of what can be achieved by the successful combination of a range of managerial, professional and technical people with the unwavering determination to achieve worthwhile goals.



### ROAD ASSET BENCHMARKING PROJECT 2019 TIMBER BRIDGE MANAGEMENT REPORT

May 2020





## CATEGORY 9



### WINNER

**DANIEL CARNEIRO**  
Section Manager  
Asset Integration  
City of Ryde Council

## THE DAVID ABBOTT AWARD

### JUDGES COMMENTS

Daniel Carneiro is currently the Section Manager Asset Integration at the City of Ryde Council, and has been with Council in various capacities since 2012. In 2020, Daniel became a Registered Engineering Professional (RPEng) and is currently pursuing a Diploma in Project Management.

Daniel is focused and interested in advancing engineering practices using Artificial Intelligence (AI) and is always looking at ways of incorporating technology to enhance business functionalities.

He has initiated and implemented the use of AI in the assessment of stormwater pipelines and has worked towards a Road AI trial. The product of this advancement means that engineers are working more efficiently with a consistent rating system. The data Daniel has obtained was used to update Council's asset registers and in the strategic module of the Asset Management System.

In striving for ingenuity, Daniel consistently looks for ways to actively use environmentally friendly products, often liaising with the Infrastructure Services team to discuss new products, such as crumb rubber asphalt and recycled footpath materials as possible products for Council to utilise.

In addition to striving for excellence in his day-to-day role, Daniel is passionate about promoting young engineers and succession planning in Local Government and has successfully implemented an Engineering Cadetship Program in partnership with Macquarie University. The program has allowed cadets to perform duties such as surveying, design, project management and asset management and in turn provided succession planning opportunities.

Daniel has developed into a highly regarded engineer and leader at the City of Ryde Council through his commitment and passion for the Local Government sector. He has also become a role model for other young engineers and therefore, very deserving of the 2022 David Abbott Award.



### HIGHLY COMMENDED

#### Chris Best

Manager Water and Sewerage Services  
Bega Valley Shire Council

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*McArthur*



## CATEGORY 10



### WINNER

#### GARY RANDALL

Group Manager of  
Project Delivery  
Port Macquarie Hastings  
Council



## PUBLIC WORKS LEADERS OF THE YEAR

### JUDGES COMMENTS

Gary Randall has led Port Macquarie-Hastings Council's centralised "Infrastructure Delivery Team – Project Delivery" since its inception. Initially, only Gary and two project managers, he has built the department into an effective team of 17.

Not only has Gary portrayed his leadership style as humble, supportive, and yet maintaining accountability, he also understands that structure drives performance.

To this end, Gary has designed his department to effectively meet the needs of both stakeholders and team members. It is led by a core Senior Leadership Group, consisting of Gary and four leaders, each responsible for different asset class areas. This allows easy communications and relationship building with the various stakeholders in various asset classes.

At the next level of the department, Gary has a matrix of Project Managers. Each project manager may be called to work on many different projects across all asset classes. This matrix promotes both flexibility, learning and development within the team.

Gary has had made this complex but effective structure work so well, by drawing on his extensive reading and experience in leadership.

Some of the outcomes of Gary's leadership include learning and development of the team, high levels of employee retention, reliable concurrent delivery of between 70 to 100 projects and confidence and trust from council members and the community.

Gary's focus on his own and his team's performance has allowed him to broaden his sphere of influence to the broader council and community. He is a trusted and reliable leader in Port Macquarie Hastings Council.

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NSW & ACT



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# Now is your chance to be part of the Engineering Excellence Awards in 2023

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**The annual IPWEA NSW and ACT State Conference will be held in Sydney on the 8th and 9th March 2023**

IPWEA NSW and ACT would like to invite our Members to nominate people and projects into the various categories. Nominations are judged on their merits and are not constrained by project size or council/organisation size.

## **GIVE YOUR TEAM THE RECOGNITION THEY DESERVE**

IPWEA NSW and ACT presents the annual Engineering Excellence Awards to promote, recognise and encourage excellence of Local Government and Public Works projects. This is achieved through inspiration, innovation, development and completion of projects and technical management by our members.

## **WANT TO PRESENT ON YOUR PROJECT AS WELL?**

Preparing a paper for presentation at the conference is a unique opportunity to share your knowledge and experience with like-minded peers. Participate in the conversation whilst contributing to the future of Local Government and the Public Works industry.

For further information, contact us on [nsw@ipweansw.org](mailto:nsw@ipweansw.org).