

# **Australia's Experts** in Ports and Coastal **Innovation**

We are Wallbridge Gilbert Aztec (WGA) — a multidisciplinary, award-winning engineering and project management consultancy with deep roots in Australia and New Zealand. Our technical excellence is found in our ability to be different, to be solution-focused and look beyond the status quo, which enables our clients to build a better future.

Founded in South Australia over 40 years ago, we are proud to have creatively and safely delivered engineering and project management solutions for billions of dollars' worth of infrastructure—from rocket launch facilities to renewable energy projects, from the most advanced sporting venues, learning and health environments, to transport on land, sea and in air.

With a team of 270 professionals based in Adelaide and Whyalla, we have laid the groundwork for what is now recognised as one of Australia's largest independent Ports and Maritime consultancies.

We're the industry experts in the marine environment, offering innovative solutions for coastal management, hydraulic modelling, dredging, and the design of ports, harbours, and terminals.

Spanning across the nation, our team thrive on tackling unique challenges, driving sustainable development and opening up new possibilities for coastal and maritime infrastructure.

AS ACTIVE MEMBERS AND CONTRIBUTORS TO PIANC, WE'RE NOT JUST DELIVERING PROJECTS, WE'RE HELPING TO SET THE **GLOBAL STANDARDS FOR SUSTAINABLE AND** EFFICIENT MARITIME DEVELOPMENT.

#### YOUR TRUSTED PARTNER IN ENGINEERING AND MARITIME



#### **Coastal Processes and Modelling**

- Numerical modelling of waves, currents and sediment transport
- Metocean studies
- Coastal processes investigations and impact studies
- Dredge plume modelling
- Coastal morphology and evolution modelling
- Coastal monitoring and data collection
- Physical modelling specification and supervision





- Design and assessment of breakwaters, seawalls, revetments and groynes
- Erosion and scour protection solutions
- Shoreline protection schemes
- Artificial reefs and living shoreline structures
- Water-front developments
- Condition assessments

## **Dredging and Reclamation**



- Planning and design of dredging projects
- Dredge impact assessments
- Dredge plume modelling
- Sedimentation and maintenance dredging strategy development
- Seabed mobility/scour studies

## Ports, Harbours and Terminals



- Mooring and berthing analysis
- Navigation studies
- Operability assessments
- Channel design
- Port layout and harbour design
- Marina and slipway design

## **Coastal Management**



- Coastal hazards investigations
   Climate change risk and risk assessments
- Coastal impact assessments
- Coastal adaptation and management studies
- planning
- Beach management and beach nourishment
- Schemes

#### YOUR EXPERTS IN PORTS AND COASTAL INFRASTRUCTURE

At this year's Coast to Ports Conference in Adelaide, WGA proudly showcases the depth and diversity of its technical expertise through a series of compelling presentations that reflect our commitment to innovation in the marine environment. From dynamic hull pressure modelling and structural remediation using BIM, to the design of gravity structures and expansion of container terminals, our team of engineers will share insights that are shaping the future of coastal and maritime infrastructure. With a strong local presence and national reach, WGA continues to lead the way in sustainable development, smart engineering, and collaborative problem-solving across Australia and New Zealand.

Name	Торіс
David Ewers	KI Ports Turning Dolphin Gravity Structure
Jordan Butler	Non-Linear Transient Dynamic Hull Pressures
Mark Bennet	Breakwater Impact on Berth Operability (wave tranquillity)
David McKay	SA Container Terminal Expansion
Joris Jorissen	Mandorah Marine Facility
Sin Nyap Tan	Mitigating the threat of a breach at Bird Island
Luke Campbell	Optimising marine pile design: The Mardie Salt & Potash export jetty
Stephan Dickinson	Reality Check: Merging 3D Models and BIM for Smarter Structural Remediation



# **CONNECT WITH US**

Swing by and meet our Ports and Maritime team at Coast to Ports — or drop us a line to see how we can help bring your next project to life.



**Luke Campbell**Ports and Marine Lead
- Group / Director



**David Ewers** Senior Structural/ Maritime Engineer



**David McKay**Ports & Marine Lead
- SA



Joris Jorissen Coastal & Ocean Technical Lead



Jordan Butler Senior Structural & Maritime Engineer



Stephan Dickinson Ports & Marine Lead - WA



Uddish Singh Senior Maritime Engineer



Mark Bennet Senior Maritime Engineer



**Sin Nyap Tan** Principal Coastal Engineer



**Yuhui Wu** Structural Engineer



Russell Perry Regional Manager -NSW & QLD

# **PROJECT EXPERIENCE**



Clipper Ship City of Adelaide Retrieval



Fletcher's Slip Redevelopment, Port Adelaide



**Port Bonython Fuels Jetty Upgrade** 



Port Playford Iron Ore Export Facility



West Beach and O'Sullivan Beach Boat Ramp Upgrades