

**SEPTEMBER 2025 Volume 68 Issue 8. Online: [www.corrosion.com.au](http://www.corrosion.com.au)**

*Located in the heart of Melbourne, Marvel Stadium has a proud history of hosting world-class events – and in November it will be hosting our corrosion industry's most anticipated annual event, "Materials Protection for the Future" presented by the ACA.*



**9 - 13 NOVEMBER 2025**

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We're excited to share an engaging and inspiring agenda that will be confirmed closer to the conference date, so check back regularly.

Several papers are from New Zealanders, so come along and join the excitement.

**REGISTER NOW!**

**Abstracts & Programme:** The full list of accepted abstracts and the programme can be found at <https://auscorrosion.eventsair.com/corrosion-prevention-2025/program>

**Registrations:** <https://auscorrosion.eventsair.com/corrosion-prevention-2025/>

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## Q & A CORNER



Older ACA NZ members have probably seen a number of situations that may never have made it to a textbook.

If you have a question you'd like clarification on, email it to the Editor at [lesboultonrust@gmail.com](mailto:lesboultonrust@gmail.com). We'll pose it to our panel of experts who will answer it in another Bulletin, so everyone can improve their knowledge.

### Q: *What's going on with the Ōhau Channel Diversion Wall in Lake Rotoiti?*

& A:

The 1.3km long Ōhau Channel Diversion Wall was built in 2008, at a cost of \$12 million, to protect Lake Rotoiti from nutrient-rich water flowing in from Lake Rotorua. The sheet pile steel wall is now experiencing serious structural issues due to corrosion, allowing polluted water to bypass the diversion wall, and reversing the intended water quality improvements in Lake Rotoiti.

The wall initially succeeded in reducing algae and clarifying the pristine lake water, diverting the polluted nutrient-rich water through the Ōhau Channel flowing into the Kaituna River.

However, there is growing discontent in Rotorua around the present state of the wall. The Bay of Plenty Regional Council is aware that the steel diversion wall is corroding, and they are not fixing it fast enough say locals - something the council disputes.

Lakes Water Quality Society said the Ōhau diversion wall was expected to last 50 years, but corrosion was noticed just six years after it was completed.

The council acknowledged accelerated corrosion was first noted in 2014, explaining that the unique location as the world's only geothermal lake diversion wall meant it was "not anticipated" microbial influenced corrosion (MIC) would shorten the lifespan of the wall.

Now large holes have opened up, and instead of a diversion wall "it was more like a leaky bucket." However, Bay of Plenty Regional Council says it isn't as bad as it sounds.

"The wall is still there. Having some holes in it doesn't mean it's not doing its job," the Council said. "It's continuing to function, but probably not quite as efficiently as it would



Left: Holes visible in the Ōhau Channel diversion wall

Right: Aerial image of Ōhau Channel diversion wall appears to show sediment leakage



if it had no holes."

This state of affairs resulted in repairs in 2019, and a polyethylene patching trial in 2024 offered only limited success. "Given the current information, repairs are not urgent from either a water quality or a structural perspective," the Regional Council said. Trials of repair methods were under way, however, with costs ranging from \$4.8 million for minimal repairs to up to \$62 million for full replacement.

The Mayor of Rotorua said the Regional Council was not doing enough to stop Lake Rotoiti from becoming polluted again. But the Council disputes this. "We have a strategy around managing the wall, which we put in place in 2015, so we are monitoring the corrosion every three years, and that is detailed monitoring," they said.

The Regional Council conceded it was investigating ways to repair the holes, "and also we are currently looking at a range of options around what could be done to repair the holes and repair the wall in a short-term way or in a long-term way."

Whether this will satisfy unhappy locals remains to be seen.

## 40-year trans-Tasman Standards partnership takes the next step

Standards Australia and Standards New Zealand have signed a new Heads of Agreement to modernise and streamline joint standards arrangements. This marks a renewed commitment to our enduring partnership and builds on the foundation of over 2,000 existing joint standards that support economic growth across both nations.

The agreement ensures that joint standards will continue to be developed and adopted in ways that support more accessible participation for industry. It will deliver cost-effective trans-Tasman standards for both nations and, where appropriate, see international standards adopted that can be trusted by both industry and consumers.

In addition to the vital role we play in the trans-Tasman Single Economic Market, through frameworks such as

the Closer Economic Relations (CER) agreement and the Trans-Tasman Mutual Recognition Arrangement (TTMRA), the strengthened partnership seeks to deepen our strategic collaboration in areas of mutual priority, including emerging technologies, supporting standards alignment, and the strengthening of trans-Tasman supply chains.

Our shared vision is clear: to build a Standards system that not only keeps pace with change but also actively enables it by harmonising the adoption and use of international standards to the benefit of both Australia and New Zealand.

Together, we are committed to delivering on this vision, ensuring that standards remain a powerful enabler of productivity, competitiveness, and shared economic prosperity.

*from Standards Australia & Standards NZ*

## From ACA: 2025 Applicator & Coatings Roadshows “a great success”

Each event welcomed between 70 and over 90 attendees, which is a fantastic result for the industry.

Thank you to our major sponsors, MCU-Coatings and BlastOne, and to Galvanizers Association of New Zealand, UCC and Syntech in NZ.

Thank you to Andrew (AJ) Russell, who stepped in as MC for the New Zealand events. Your enthusiasm and energy really helped bring the shows together. We also extend our appreciation to the Applicator & Coatings Technical Group Committees for their continued support and involvement.

Attendees commented on the strong technical and demonstration content, the clear structure and flow of the day, and the value of the half-day ticketing option. Thank you to everyone who took the time to attend, learn, network and contribute to the continued development of the applicator and coatings space.

We look forward to seeing you again in 2026!

*See also August's coverage of the Auckland Roadshow*

Aurora Energy Otago Science & Technology Fair  
c/o Steven Sexton  
University of Otago College of Education  
PO Box 56  
Dunedin

Willie Mandeno  
Australasian Corrosion Association (NZ Branch)

12 August 2025

### The Aurora Energy Otago Science and Technology Fair

Kia ora Willie,

Thank you and Australasian Corrosion Association (NZ Branch) for your sponsorship of the Aurora Energy Otago Science & Technology Fair.

This year we attracted 240 entries from 17 schools totaling almost 300 students from around the Otago region to include Central Otago. We continue to be the largest science and technology fair in the country.

Judges were impressed by the quality and diversity of questions investigated by Otago's young scientists. While we did not attract as many entries as expected, it is notable that due to all the changes in curriculum and impact that this has had on schools, we still attracted entries from a range of schools. The judges were most impressed with a Year 8 (best in fair) and Year 12 (most promising young scientist), and a Year 7 display (awarded General Excellence). Any of those three could have been best in fair.

### Australasian Corrosion Association (NZ Branch)

Amelie Wilson	Pulling Strings
Jazeel Vivar	Testing the water: pH Control
Reyansh Jain	Invisible threat Visible effect
Xylana Tiburcio	Will it rust?
Amy Jackson	Crimes of Corrosive Corruption
Aroha Brunt	Peita Pai
James Hemmings	The erosion commotion
Matthew Lindsell	Otago Harbours Phenomenal Water's! 2
Monty Read	Otago Harbours Phenomenal Water's! 2
Syd Boden	Crimes of Corrosive Corruption
Inge Erasmus	Magnetic Rocks



## Kelly Tarlton's final treasure hunt

In December 1769, as Captain James Cook's ship the Endeavour was rounding the northern tip of the North Island of New Zealand, the French explorer Captain Jean Francois de Surville was also exploring the same waters, but the two sea captains never made contact with each other. During a severe storm de Surville anchored his sailing ship, the St Jean Baptiste, in Doubtless Bay. The storm resulted in de Surville's ship losing three huge wrought iron anchors in Doubtless Bay. Sailing ships in the 1700-1800s typically carried about six sea anchors made of wrought iron and timber.

Two of the de Surville anchors were recovered in the 1970s by Kelly Tarlton and his diving team.

**Right:** A diver examines one of the de Surville anchors on the sea floor in Doubtless Bay in 1974



**Below:** The restored second de Surville anchor housed at the Te Ahu Museum in Kaitia



The third anchor was observed by Kelly Tarlton but it hadn't been seen since. The three de Surville ship anchors are among the oldest relics of early European contact with New Zealand. The 256-year old wrought iron anchors were about four metres long and each weighed more than a tonne.

One of the de Surville anchors is now housed at the Te Papa Museum in Wellington, and the second anchor is housed at the Te Ahu Museum in Kaitia.

Recently a diving team, including the late Kelly Tarlton's daughter Nicole Tarlton, recommenced the search for the third de Surville anchor in Doubtless Bay. They also explored the possibility that the third de Surville anchor might have been illicitly salvaged from Doubtless Bay and made into a centrepiece at the Te Arai lakes north of Auckland and named "Shipwrecked". This large old anchor had no known history and it was a mystery.

A recent expedition to Doubtless Bay by the original diving team using a remotely operated vehicle (ROV) with a magnetometer, searched the area where Kelly Tarlton had apparently recorded the last sighting of the third anchor.



**Above right:** A rusty old wrought iron anchor, called "Shipwrecked," located at Te Arai Lake. It is 4m high and weighs about a tonne (2025)

After frustrating delays due to bad weather, they were astonished to find the ring on the shank of a huge anchor lying at a depth of 28 metres, with one of the anchor flukes jammed firmly in the seabed and the main shaft of the anchor suspended just above the sea floor. The anchor was in the right location; it had the right dimensions; it was very rusty and encrusted with marine life.

The mystery had been solved. The "Shipwrecked" anchor at Te Anai Lake is not from the French ship St Jean Baptiste. Heritage New Zealand has now confirmed the authenticity of the new anchor find in Doubtless Bay as being 'almost certainly' the third de Surville anchor lost for 256 years. The third anchor will remain where it is, undisturbed on the seabed until local Maori have been consulted and the area is assessed by a professional archaeologist.



**Left:** Part of the lost third iron anchor from the St Jean Baptiste resting on the sea floor in Doubtless Bay (2025)

Source: Radio NZ, July 2025

## Is your spray setup right for passive fire protection work?

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## ACA NZ BRANCH COMMITTEE & OFFICERS 2025-26

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Technical: Raed El Sarraf

Education: Matt Vercoe

Electrolysis: Grant Chamberlain

Members: Rene Hill (VP), Philip La Trobe, Nicholas Zglobis, Ry Collier, Marius Gray, Steve Watts

Editor: Les Boulton

## Designing Durable and Sustainable *Steel Structures*



In collaboration with  
Australasian Corrosion  
Association Inc. and the  
Structural Engineering Society  
New Zealand (SESOC).

### Seminar Overview

Designing durable and sustainable steel structures is essential for creating structures that perform reliably over time while meeting modern environmental and economic goals. This seminar brings together leading experts and industry professionals to explore the latest thinking, technologies, and strategies that enhance the longevity and sustainability of steel structures.

The event will focus on practical guidance, innovative research, and design approaches that help practitioners address durability challenges and reduce the carbon footprint relating to construction. Attendees will gain insights into the latest industry standards and best practice in corrosion protection and sustainability frameworks shaping the future of steel construction.

#### Who Should Attend

- » Structural and Civil Engineers
- » Architects and Designers
- » Sustainability and Carbon Experts
- » Coating and Fire Protection Specialists
- » Construction and Product Suppliers
- » Policy Makers and Regulators

In addition to technical sessions, the seminar offers networking opportunities and an exhibition area, enabling participants to connect with peers, suppliers, and industry leaders to discover products, services, and solutions supporting sustainable design and construction.



# Schedule of activities

Time	Proposed Topic	Speaker
08:30am	Registration	
08:50am	Welcome	Mayank Shrivastava
09:00am	Updating HERA Report R4-I33 and SNZ TS 3404	Raed El Sarraf
09:30am	Corrosion and Durability Research at BRANZ	Zhengwei Li
10:00am	<b>Morning Tea</b>	
10:30am	SESOC Sustainable Design Task Force – Supporting low carbon design	Charlotte Toma
11:00am	A case study of Microclimates	Stewart Hobbs
11:30am	The new IZS	Garth Moran
12:00pm	<b>Lunch</b>	
1:00pm	Product specifications, carbon data and other MBIE updates	Katie Symons
1:30pm	Improving thermal efficiency and durability: an overview of Structural Thermal Breaks	Anne Husband
2:00pm	HERA's Low Carbon Circular Building Design	Kaveh Andisheh
2:30pm	<b>Afternoon tea</b>	
3:00pm	The impact of structural element on operational carbon	Glenn Ellis
3:30pm	Fire Protection Optimisation for steel structure	Mayank Shrivastava
4:00pm	Open forum	
4:30pm	Exhibition and Networking	
5:30pm	<b>Finish</b>	

[Register here](#)



**25 Sept 2025**

Auckland  
Waipuna Hotel and Conference Centre



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**Members:**  
\$600 + GST

**Non-members:**  
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