



Aggregate News

AGGREGATE & QUARRY ASSOCIATION OF NZ

The year ahead

So here we are in 2025 – a quarter of a way through the century – and hopefully all refreshed and raring to go.

The first big event in your calendar might/should be the third Women in Extractives event. Hosted by the AQA, MinEx and Straterra and supported by IOQNZ and AusIMM, this event recognises how we should all be encouraging diversity and inclusion in our workforces.

I hope your company will be represented in Christchurch on March 20, not least by some who have been nominated for one of the three awards. Nominations close on Friday 21 February. You can contact office@aqa.org.nz for the event details and entry form.

QuarryNZ this year will be back at Claudelands in Hamilton from 9–11 July and is shaping up to be as big and beneficial as ever. I'd recommend getting your Early Bird Registrations from www.quarrynz.com and booking your airfares if needed.

Claudelands is also again the venue for the Future Roads conference on 19–20 November, an event quite a few in the quarry sector now see value in attending.

That includes the AQA. Wayne Scott was pleased to hear at Future Roads 2024, NZTA's Andrew Clark (National Manager of Maintenance and Operations) say he wants to work with quarries to reduce the risk aggregate supply poses for the Government's infrastructure plan. It's encouraging to know that officials as well as Ministers are getting the message that they can't build anything without us.

That's particularly so with roads. There was a renewed case put at the Future Roads conference for concrete roads, especially in high and heavy traffic areas. A panel discussion at the conference



was chaired by AQA Technical Adviser Mike Chilton (more on that next issue.) Meantime, he reports on the latest quarry production stats in his usual Technical Update (page 41)

I'm also proud to see that the AQA has done the hard yards for our sector for when we increasingly need to show customers the environmental impacts of the products we supply. Our CEO Wayne Scott has worked with consultant Bernie Napp to develop an industry Life Cycle Assessment which can be quoted in tenders or used as a template for development by individual companies. (See story page 38)

At the same time, the pair have been doing some work with our friends in the NZ Limestone Producers Association seeking changes in the current measure of emissions from agricultural lime. The hope is we will see new field trials in New Zealand to provide more robust and

realistic measurements. (see story page 40)

Finally, it's appropriate for Aggregate News to mark the retirement of Tony Hunter after 38 years in the industry, much of it as GM at Blackhead Quarries in Dunedin. As you'll read, he's a forthright, fifth generation quarrying man and his contribution to the industry includes many years on the AQA Board. Fortunately, we will retain him there for a little while yet but I wish to acknowledge Tony for his commitment and service to quarrying.

It is pleasing to note that his contribution is being continued by his sons Joe and Jimmy, who provide a sixth-generation in the quarrying industry.

If anyone can match that record dating back more than a century and a half, please let us know; you'll deserve a story too. Also contact QM editor Alan Titchall for the magazine's veteran profiles.

Jayden Ellis
Chair, AQA

Christchurch for Women in Extractives Hamilton for QuarryNZ

QuarryNZ moves back to Hamilton this July with the theme:
The Future is Now – Empowering the Next Generation of Quarry Professionals.



Get your skates on for next month's Women in Extractives.

Next month sees the expanded Komatsu NZ Women in Extractives, event to be held Thursday March 20 in Christchurch. Hosted by Straterra, AQA and MinEx and supported by IOQNZ and AusIMM, the event celebrates diversity and inclusion in the extractives sector.

A panel discussion, keynote speaker and networking opportunities will be followed by lunch and the three award presentations, nominations for which close on Friday 21 February.

The Kristy Christensen Memorial Award (sponsored by MinEx and named in honour of its late former Board member) acknowledges someone who, like Kristy, is a champion for diversity.

The Emerging Star Award (sponsored by MITO) will recognise someone who has brought fresh ideas to their role, unwavering commitment to outstanding personal performance and innovative thinking, while showing consideration for colleagues.

The Leader of the Year (sponsored by

Hanga-Aro-Rau Workforce Development Council) will be given to a leader who has demonstrated vision, dedication and determination for their team to succeed and a commitment to diversity and inclusion.

To get a nomination form and to buy tickets, contact office@aaq.org.nz. Judging will be completed by a panel from Straterra, AQA and MinEx. Tickets are available to purchase at AQA.

The first-class Claudelands facility in Hamilton will host QuarryNZ from 9-11 July.

Conference organiser Melissa Bahler says Early Bird Registrations are open and given the increasing cost of airfares, it's recommended you also book these early. Accommodation is available at conference rates at four Hamilton hotels.

Resources Minister Hon Shane Jones will give a keynote address and he will no doubt outline, if not amusingly embellish, the Government's plans.

Geoff Cooper, CEO of the Infrastructure Commission will give a keynote on what's in the draft 30-year Infrastructure Plan

which Ministers will only have received a week or two earlier. This is expected to give us the criteria for infrastructure priorities.

Infometrics Principal Economist Brad Olson is another keynote already lined up, as is Clayton Hill (SLR Australia) who will draw on his 20 years of leadership experience in extractives in Queensland.

For exhibitors, 92 booths are available and Melissa says one beauty of Claudelands is there's no load limit, meaning machinery can come inside. In December she was getting an inquiry a day from potential exhibitors.

"There's good interest again from Australia. We're also getting a wider net of exhibitors. They see value in getting across so many delegates in one space."

The Partners Programme will include a visit and lunch at Zealong Tea Estate which not only exports some of the most expensive tea in the world; it also boasts a restaurant with two chefs who've worked in Michelin star restaurants. **AQA**

New 'carbon' tool for AQA members

A Life Cycle Assessment tool (LCA) has been developed by the Aggregate and Quarry Association to assist members who are increasingly being asked by customers to provide such information.



Wayne Scott, AQA CEO.

Wayne Scott says the LCA is available to AQA members on request.

“They can use it as a base document to meet customer requirements, or develop it as a company document with the hard work already done.”

He commissioned Prospect Consulting’s Bernie Napp to produce the AQA LCA. Bernie says it took longer to produce than he anticipated, including three rounds of an external audit.

“But that work will provide savings to AQA members.”

The LCA defines the average environmental impacts for aggregate and sand.

For example, says Bernie, a concrete company needing environmental product declarations would be able to import the LCA and reference the impacts for its Environmental Product Declaration (EPDs) to meet customer requirements. “And away they go. If you want to develop a bespoke LCA for your company, then the AQA has done the hard yards.”

The LCA can be used for the Australasian Infrastructure Sustainability Council’s IS Rating Tool for infrastructure and the New Zealand Green Building Council’s Greenstar tool for buildings. Both tools focus on the embodied CO2 in building and construction materials.

Bernie says entities such as the NZTA have for some time required the Australasian Infrastructure Sustainability Committee rating on some larger projects and the LCA work would provide an accessible data input.

“That’s the driver, not in law or regulation; the driver is the market.”

He says LCA assesses environmental impacts in quarrying from ‘cradle to gate’ including dust, water use, waste management but the key figure is the amount of carbon dioxide generated. This

is assessed at around 5kg of CO2 equivalent per tonne of aggregate produced, principally from the use of diesel machinery to excavate, crush and load aggregate.

“In our sector, this is the only figure that matters.”

The LCA used as a benchmark the Winstone Aggregates Environmental Product Declaration, published on the EPD Australasia platform.

Bernie says a LCA can be developed as a self-auditing output or like the AQA, can go through an external audit by a recognised professional. An Environmental Product Declaration adds another layer of requirements, in terms of process and publishing.

The LCA had analysis provided by quarry engineering consultancy, Aggretech, and has been supported by a wide range of NZ quarrying companies. It was developed under licence to the Global Cement and Concrete Association’s branded and internationally verified software tool for developing LCAs.

Wayne Scott adds that the LCA follows on from the AQA publishing in 2022 a Road Map on sustainability for the quarry sector. Then came template environmental, social and governance (ESG) policies for members to adopt and use in engagement with the communities in which they live and work, including iwi and local authorities.

“The focus of both our customers and regulators is now shifting towards product stewardship. This AQA LCA is a response to help our members meet those expectations.”

Any AQA member interested in obtaining the LCA should contact office@aqa.org.nz [AQA](#)

The Aggregate & Quarry Association appreciates the support of our members





Above: Tony Hunter has also been a loyal IOQNZ member and received the Honorary Fellowship at last year's QuarryNZ.

Left: James Palmer (left), at Logan Point around the turn of the century.

Six generations of quarrymen

Tony Hunter retired at Christmas as the GM of Blackhead Quarries after a lifetime in the quarry sector. He continued a tradition one and a half centuries old – and is passing it on.

Tony's great grandfather James Palmer settled in Dunedin in 1855. Born in London and trained as an accountant, James was employed by the Otago Foundry which expanded to include Logan Point Quarry.

By 1880, James Palmer owned the quarry. In 1892 the Otago Witness reported he was offering to supply *"...bluestone metal in large or small quantities, as required, at 2s 4d per cubic yard, delivered in trucks at Logan's Point."*

James had married in 1864 to Mary Bagley. They had eight children. Son Dick was the second-generation owner/manager of the Logan Point quarry; his son James provided the third generation.

A daughter of James and Mary, Laura married Howard Hunter. Their son, Jim Hunter, a nephew of the Palmers, started at Logan Point in 1956 before later managing it. Jim was also a founding member of the AQA. In 1973 he expanded a shareholding in Blackhead Quarry along with one held by Fulton Hogan. They took it over in 1986, the year Tony began working for the company.

"When I started there were a lot of people working in a dusty, dirty environment. Most now are in air-conditioned cabs with the radio playing."

He says this has been the biggest change he's seen in the industry, providing a major improvement for quarry workers' health.

As GM for Blackhead for much of his 38 years, Tony was based at the Logan Point quarry which now sits close to Dunedin's CBD.

"We weren't in the 1880s. That's what cities do to quarries."

Being inner-city brings pluses and minuses. He once calculated the quarry provided about \$2 million a year in transport savings to Dunedinites.

The disadvantage is always being in the public eye. "You have to behave." Tony introduced water and air discharge measures at Logan Point long before they were required for resource consents.

He purchased one of the first Roll crushers in the world, turning pebbles into sand, introduced our country's first electric haul truck and one of the first E-excavators.

"We have been innovative." That's meant a lot of continued investment rather than constant returns but Tony says he's thankful. "I've had a good life because I've been able to work as a quarryman. And it's not over yet."

He continues on the board of Palmer Resources which owns Springfield and Victory Lime operations in Canterbury and has recently acquired the central North Island operations of Ravensdown. He's also a director of AB Lime, another family-held company and remains a member on the AQA Board.

Tony's sons are now the sixth-generation in the industry. Joe manages Logan Point and Jimmy manages the Viblock concrete masonry plant in Central Otago. Nephew Jack Hunter is the Operations Manager at AB Lime.

Given the history, there's a fair chance there may yet be more chips off the Hunter/Palmer block. **AQA**



Lime producers are pleased with work aiming to line up some lime carbon changes.

Lime emissions advocacy

Work by the AQA and NZ Limestone Producers Association (NZLPA) to challenge assessments of the carbon emissions from agricultural lime could see new field trials to provide more robust measurements.

The Ministry for Primary Industries is providing up to \$400,000 of funding over 1-2 years to review liming emissions under its Greenhouse Gas Inventory Research Fund.

NZLPA Chair Shaun Cleverley says behind the scenes work by Wayne Scott and consultant Bernie Napp seems to be paying dividends.

In 2023, NZLPA and the AQA commissioned a literature review of CO2 emissions from crushed limestone (lime) applied on pasture as a soil conditioner.

This reflected industry concerns that lime-related CO2 emissions were being grossly over-estimated in the NZ Greenhouse Gas Inventory.

The review tracked the initial calculations to those done in 2006 by the Inter-governmental Panel on Climate Change (IPCC.) This work assumed complete conversion of lime to CO2 emissions, within a year of application. The IPCC did note caution was required on its calculations and acknowledged some of the carbon in lime was likely to be retained in the soil and not emitted as CO2.

However, the IPCC’s calculations fed into a figure accepted internationally and here, delivering an “emissions factor” of as high as 440 kilograms of CO2 per tonne of lime (commonly expressed as 0.44, later modified to 0.36).

The NZLPA review cited a summary of 57 international field studies that showed on average liming grasslands had “minimal

impact” on total net GHG emissions. The applications also reduced soil acidity and fertiliser requirements and promoted grass growth and species richness.

Shaun Cleverley says despite such findings, the idea that liming creates lots of carbon emissions has become baked into calculations made by our government departments and even private sector organisations.

“Setting a high bar on a reassessment just disincentivises the case to lime pasture for soil pH conditioning. If it holds, this could mean more fertiliser being applied than needed, causing more nitrogenous greenhouse gas emissions and issues with freshwater.

“That would mean perverse environmental outcomes if we can’t get an accurate emissions factor for liming.”

He says the NZLPA was determined to put its case, so when its first review of the research did not get traction it commissioned a second. This then fed into an MPI workshop held in 2024 on improving the accuracy of our greenhouse gas inventory.

NZLPA and the AQA were working with research organisations to help develop a response to the request for proposals for funding field trials to calculate liming emissions factors for our country. Options could include a PhD student conducting the research under the supervision of highly experienced scientists.

Announcements are likely early in 2025. **AQA**

AQA works for the quarry industry – join us today

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AQA Technical update

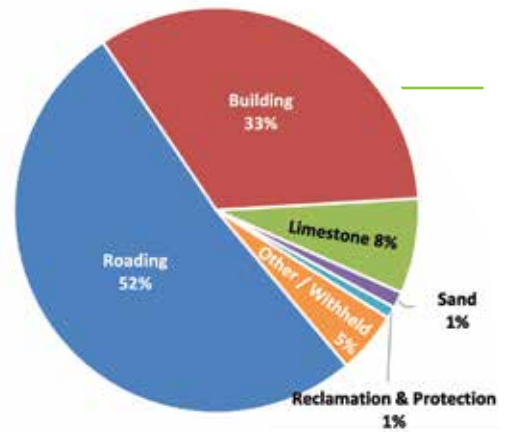
NZTA M03 Sub-base

- The working group for the sub-base specification has had its third meeting and the spec will go out for wider consultation shortly. Communications from AQA on this went out in January so ensure you have your say.
- Related to the new sub-base spec, a review of the latest M04 spec is likely for late 2025, after its one-year anniversary. If you have feedback on either of these specs please email Mike at tech@aqa.org.nz.

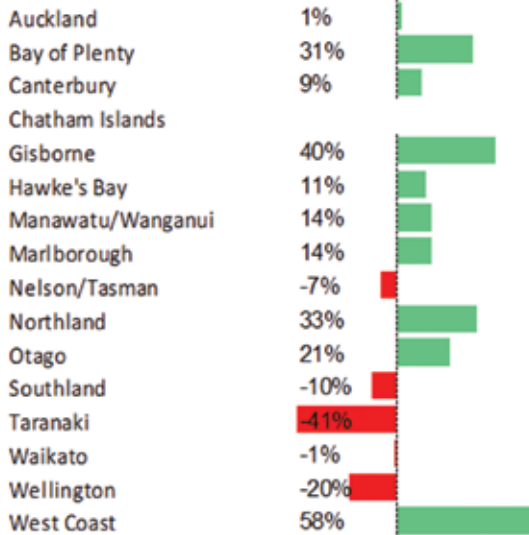
NZ Aggregate Production Statistics

- Thank you to the 464 quarries that supplied their 2023 production data to NZ Petroleum and Minerals.
- Official total aggregate production for 2023 was 37.3 million tonnes (7.1 tonnes per person) and production held steady at around 80,000t per quarry.
- The percentage split is fairly consistent with previous years; 52% roading, 33% building, 8% limestone, 7% sand for industry / reclamation & protection / recycled / withheld.
- It was pleasing to see the regions mostly up on their 5-year averages, particularly; West Coast, Gisborne, Northland and Bay of Plenty which were all up over 30%. Note, some regional figures reflect lower reporting.
- Total revenue from ex-quarry sales was also up over \$120M to \$766M – the first time revenue has topped \$700M. **AQA**

Mike Chilton, Technical Adviser, AQA



2023 Regional Variance on 5-year average



<p>AQA Board</p> <p>https://aqa.org.nz/our-members/</p>			<p>Aggregate & Quarry Association of NZ PO Box 10668 Ground floor 93 The Terrace Wellington 6140 0800 469 272</p> <p>Chief Executive Wayne Scott wayne@aqa.org.nz 021 944 336</p> <p>www.aqa.org.nz</p> 											
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